
# Form 20-F 2022

TotalEnergies

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION
**WASHINGTON, D.C. 20549**

# FORM 20-F

*(Mark One)*

☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

## For the fiscal year ended December 31, 2022

**OR**

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ______ to ______

OR

☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report

Commission file number: 1-10888

# TotalEnergies SE

(Exact Name of Registrant as Specified in Its Charter)
N/A
(Translation of Registrant's name into English)

**Republic of France**

(Jurisdiction of Incorporation or Organization)

2, place Jean Millier
La Défense 6
92400 Courbevoie
France
(Address of Principal Executive Offices)
Jean-Pierre Sbraire
Chief Financial Officer
TotalEnergies SE
2, place Jean Millier
La Défense 6
92400 Courbevoie
France
Tel: +33 (0)1 47 44 45 46
Fax: +33 (0)1 47 44 49 44
(Name, Telephone, Email and/or Facsimile Number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

| Title of each class | Trading symbol(s) | Name of each exchange on which registered |
|---|---|---|
| **Shares** | | **New York Stock Exchange*** |
| **American Depositary Shares** | **TTE** | **New York Stock Exchange** |

* Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act.

**None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

**None**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.
2,619,131,285 Shares, par value €2.50 each, as of December 31, 2022

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of "large accelerated filer", "accelerated filer", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | |
|---|---|---|
| Large accelerated filer ☑ | Accelerated filer ☐ | Non-accelerated filer ☐ |
| | | Emerging growth company ☐ |

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards*** provided pursuant to Section 13(a) of the Exchange Act.

*** The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

| | | |
|---|---|---|
| U.S. GAAP ☐ | International Financial Reporting Standards as issued by the International Accounting Standards Board ☑ | Other ☐ |

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

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## BASIS OF PRESENTATION

References in this annual report on Form 20-F (this "Annual Report") to pages and sections of the "Universal Registration Document 2022" are references only to those pages and sections of TotalEnergies' Universal Registration Document for the year ended December 31, 2022 attached in Exhibit 15.1 to this Form 20-F and forming a part hereof. Other than as expressly provided herein, the Universal Registration Document 2022 is not incorporated herein by reference.

TotalEnergies' Consolidated Financial Statements on pages F-9 to F-13 are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and IFRS as adopted by the European Union (EU) as of December 31, 2022.

In addition, this Annual Report and the Universal Registration Document 2022 contain certain measures that are not defined by generally accepted accounting principles (GAAP) such as IFRS. Our management uses these financial measures, along with the most directly comparable GAAP financial measures, in evaluating our operating performance. We believe that presentation of this information, along with comparable GAAP measures, is useful to investors because it allows investors to understand the primary method used by management to evaluate performance on a meaningful basis. Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with GAAP. Non-GAAP financial measures as reported by us may not be comparable with similarly titled amounts reported by other companies.

## STATEMENTS REGARDING COMPETITIVE POSITION

Unless otherwise indicated, statements made in "Item 4. Information on the Company" referring to TotalEnergies' competitive position are based on TotalEnergies' estimates, and in some cases rely on a range of sources, including investment analysts' reports, independent market studies and TotalEnergies' internal assessments of market share based on publicly available information about the financial results and performance of market participants.

## ADDITIONAL INFORMATION

This Annual Report reports information primarily regarding TotalEnergies' business, operations and financial information relating to the fiscal year ended December 31, 2022. For more recent updates regarding TotalEnergies, you may inspect any reports, statements or other information TotalEnergies files with the United States Securities and Exchange Commission ("SEC"). All of its SEC filings made after December 31, 2001 are available to the public at the SEC website at http://www.sec.gov and from certain commercial document retrieval services. See also "Item 10. - 10.8 Documents on display".

No material on the TotalEnergies website forms any part of this Annual Report. References in this Annual Report to documents on the TotalEnergies website are included as an aid to the location of such documents and such documents are not incorporated by reference. References to websites and the Sustainability & Climate - Progress Report 2023 contained in this Annual Report (including all exhibits hereto) are provided for reference only; the information contained on the referenced websites or in the Sustainability & Climate - Progress Report 2023 is not incorporated by reference in this Annual Report.

## CERTAIN TERMS, ABBREVIATIONS AND CONVERSION TABLE

For the meanings of certain terms used in this document, as well as certain abbreviations and a conversion table, refer to the "Glossary" starting on page 655 of the Universal Registration Document 2022, incorporated herein by reference. The terms "TotalEnergies", "TotalEnergies company" and "Company" as used in this document refer to TotalEnergies SE collectively with all of its direct and indirect consolidated companies located in or outside of France. The term "Corporation" as used in this document exclusively refers to TotalEnergies SE, which is the parent company.

## CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

TotalEnergies has made certain forward-looking statements (including within the meaning of the Private Securities Litigation Reform Act of 1995) in this document and in the documents referred to in, or incorporated by reference into, this Annual Report. This document may contain forward-looking statements including within the meaning of the Private Securities Litigation Reform Act of 1995, notably with respect to the financial condition, results of operations, business activities and industrial strategy of TotalEnergies. This document may also contain statements regarding the perspectives, objectives, areas of improvement and goals of TotalEnergies, including with respect to climate change and carbon neutrality (net zero emissions). An ambition expresses an outcome desired by TotalEnergies, it being specified that the means to be deployed do not depend solely on TotalEnergies. These forward-looking statements may generally be identified by the use of the future or conditional tense or forward-looking words such as "envisions", "intends", "anticipates", "believes", "considers", "plans", "expects", "thinks", "targets", "aims" or similar terminology. Such forward-looking statements included in this document are based on economic data, estimates and assumptions prepared in a given economic, competitive and regulatory environment and considered to be reasonable by TotalEnergies as of the date of this document.

These forward-looking statements are not historical data and should not be interpreted as assurances that the perspectives, objectives or goals announced will be achieved. They may prove to be inaccurate in the future, and may evolve or be modified with a significant difference between the actual results and those initially estimated, due to the uncertainties notably related to the economic, financial, competitive and regulatory environment, or due to the occurrence of risk factors, such as, notably, the price fluctuations in crude oil and natural gas, the evolution of the demand and price of petroleum products, the changes in production results and reserves estimates, the ability to achieve cost reductions and operating efficiencies without unduly disrupting business operations, changes in laws and regulations including those related to the environment and climate, currency fluctuations, as well as economic and political developments, changes in market conditions, loss of market share and changes in consumer preferences, or pandemics such as COVID-19. Additionally, certain financial information is based on estimates particularly in the assessment of the recoverable value of assets and potential impairments of assets relating thereto.

Except for its ongoing obligations to disclose material information as required by applicable securities laws, TotalEnergies does not have any intention or obligation to update forward-looking statements after the distribution of this document, even if new information, future events or other circumstances have made them incorrect or misleading.

For additional factors, you should read the information set forth under "Item 3. -3.1 Risk Factors", "Item 4. Information on the Company", "Item 5. Operating and Financial Review and Prospects" and "Item 11. Quantitative and Qualitative Disclosures about Market Risk".

# ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

# ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

# ITEM 3. KEY INFORMATION

## 3.1 Risk factors

TotalEnergies conducts its business in a constantly changing environment and is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, reputation, outlook, or the price of financial instruments issued by TotalEnergies SE. Point 3.1 of chapter 3 of the Universal Registration Document 2022 (starting on page 120), incorporated herein by reference, presents the significant risk factors specific to TotalEnergies, to which it believes it is exposed as of the filing date of this Annual Report. However, TotalEnergies may be exposed to other non-specific risks, or of which it may not be aware, or the potential consequences of which may be underestimated, or the materialization of which is not considered, at that date, likely to have a material adverse impact on TotalEnergies, its business, financial condition, reputation or outlook. In particular, TotalEnergies could be exposed to systemic risks, such as unexpected major disruptions (health, such as the COVID-19 pandemic, security, monetary or cyber), leading to large-scale disturbances with global human and economic repercussions.

For additional information on the risks to which TotalEnergies believes it is exposed as of the filing date of this Annual Report, along with its approaches to managing certain of these risks, please refer to “Item 5. Operating and financial review and prospects” and “Item 11. Quantitative and qualitative disclosures about market risk”, as well as points 3.2, 3.3 and 3.6 of chapter 3 (starting on pages 130, 134 and 143, respectively) of the Universal Registration Document 2022, incorporated herein by reference.

# ITEM 4. INFORMATION ON THE COMPANY

The following information providing an integrated overview of TotalEnergies from the Universal Registration Document 2022 is incorporated herein by reference:

- presentation of TotalEnergies and its governance (points 1.1.1 and 1.9 of chapter 1, starting on pages 6 and 43 respectively);
- its strategy and ambition (points 1.2 and 1.3 of chapter 1, starting on page 14);
- history, employees, integrated business model, industrial assets and geographic presence (points 1.1.2, 1.1.3, and 1.8.1-1.8.4 of chapter 1, starting on pages 10, 12 and 39 respectively);
- an overview of its climate ambition, sustainability-linked commitments, investment policy, R&D and dialogue with stakeholders (points 1.4, 1.5, 1.6, 1.7 and 1.8.5 of chapter 1, starting on pages 20, 30, 34, 37 and 42 respectively); and
- organizational structure (point 1.9.3 of chapter 1, starting on page 47).

The following information providing an overview of TotalEnergies' businesses and activities from the Universal Registration Document 2022 is incorporated herein by reference:

- information concerning TotalEnergies' principal capital expenditures and divestitures (point 1.6 of chapter 1, starting on page 34). See also “Item 5. Operating and financial review and prospects”;
- business overview for fiscal year 2022 (points 2.1 to 2.5 of chapter 2, starting on page 66); and
- geographical breakdown of TotalEnergies’ sales, property, plants and equipment, intangible assets and capital expenditures over the past three years (Note 4 to the Consolidated Financial Statements, on page F-35).

The following other information from the Universal Registration Document 2022 is incorporated herein by reference:

- countries under economic sanctions (point 3.2 of chapter 3, starting on page 130);
- insurance and risk management (point 3.4 of chapter 3, starting on page 141);
- non-financial performance and additional reporting information (points 5.1 to 5.11 of chapter 5 and chapter 11, starting on page 264 and 619 respectively); and
- investor relations (point 6.6 of chapter 6, starting on page 397).

# ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

# ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

*This section is an analysis of the financial performance and of significant trends that may affect TotalEnergies' future performance and it should be read in conjunction with the Consolidated Financial Statements and the Notes thereto starting on page F-9. The Consolidated Financial Statements and the Notes thereto are prepared in accordance with IFRS as issued by the IASB and IFRS as adopted by the EU.*

*This section contains forward-looking statements that are subject to risks and uncertainties. For a list of important factors that could cause actual results to differ materially from those expressed in the forward-looking statements, see "Cautionary Statement Concerning Forward-Looking Statements" starting on page ii.*

For information on the invasion of Ukraine by Russia and the situation of the Company at March 23, 2023, refer to Item 5. – 5.6 starting on page 18.

## 5.1 Overview

TotalEnergies' results are affected by a variety of factors, including changes in crude oil and natural gas prices and refining and marketing margins, all generally expressed in dollars, as well as changes in exchange rates, particularly the value of the euro compared to the dollar. Higher crude oil and natural gas prices generally have a positive effect on the income of TotalEnergies because the Exploration & Production segment's oil and gas business and the integrated Gas, Renewables & Power segment's LNG and downstream gas business are positively impacted by the resulting increase in revenues. Lower crude oil and natural gas prices generally have a corresponding negative effect. The effect of changes in crude oil prices on the activities of TotalEnergies' Refining & Chemicals and Marketing & Services segments (Downstream) depends upon the speed at which the prices of refined petroleum products adjust to reflect such changes. TotalEnergies' results are also significantly affected by the costs of its activities, in particular those related to exploration and production, and by the outcome of its strategic decisions with respect to cost reduction efforts. In addition, TotalEnergies' results are affected by general economic and political conditions and changes in governmental laws and regulations, as well as by the impact of decisions by OPEC+ on production levels. For more information, refer to "Item 3. - 3.1 Risk factors".

In 2022, TotalEnergies generated cash flow from operating activities of $47.4 billion and cash flow (DACF)[1] of $47.03 billion. TotalEnergies reported IFRS net income of $20.5 billion, including nearly $15 billion in provisions related to Russia (for an adjusted net income[2] of $36.2 billion), representing a return on equity of 32% and a return on capital employed (ROACE) of 28%, which demonstrates the quality of its global portfolio. Adjusted EBITDA[3] was $71.6 billion.

In 2022, the integrated Gas, Renewables & Power (iGRP) segment reported IFRS net income of $9.6 billion, cash flow from operating activities of $9.7 billion, adjusted net operating income[4] and cash flow (DACF)[5] of $12.1 billion and $10.8 billion, respectively. These results build on the globally integrated LNG portfolio. The Integrated Power activity (covering the electricity and renewables business) had nearly 17 GW of gross renewable capacity installed at the end of 2022. In order to provide shareholders with a better understanding of the growth strategy of LNG and electricity/renewables, the Board of Directors decided that from the first quarter 2023 iGRP's results will separately report the contributions of the Integrated LNG and Integrated Power activities.

In 2022, the Exploration & Production segment reported IFRS net income of $5.1 billion and adjusted net operating income of $17.5 billion, cash flow from operating activities of $27.7 billion, raising its strong full-year contribution to the Company's net cash flow[6] with $26.0 billion. In 2022, new discoveries were made in Cyprus, Brazil, Namibia and Suriname.

In 2022, Downstream[7] reported solid performance with IFRS net income of $8.2 billion and $8.9 billion in adjusted net operating income and cash flow from operating activities of $11.8 billion and cash flow (DACF)[8] of $10.1 billion, supported by a refinery utilization rate of 82% that fully captured high refining margins. TotalEnergies continues to grow in petrochemicals with the launch of the Amiral project, an integrated complex in Saudi Arabia.

In line with the policy announced in September 2022, TotalEnergies implemented a balanced cash allocation in 2022, between shareholders with a 37.2% payout, net investments[9] of $16.3 billion, including $4 billion in low-carbon energies, and deleveraging or reducing net debt by $12.2 billion to end 2022 and net cash flow[10] of $29.4 billion with year-end gearing[11] reduced to 7.0%. In addition, the Company has ensured balanced profit sharing with its employees (exceptional bonus of up to one month's salary[12] and wage increases taking into account the inflation rate observed in various countries) and with its customers through rebates on various energy products to mitigate the increase in energy prices. Governments have also benefited from more than $33 billion in taxes worldwide, more than double the amount in 2021, mostly paid to producing countries.

[1] DACF = debt adjusted cash flow, is defined as operating cash flow before working capital changes and without financial charges. Operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sales (effective first quarter 2020). Operating cash flow before working capital changes provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

[2] Adjusted net income refers to adjusted net operating income, adjusted for special items, inventory valuation effect and the effect of changes in fair value. See "- 5.3 Business segment reporting" below for further details.

[3] Adjusted EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) corresponds to the adjusted earnings before depreciation, depletion and impairment of tangible and intangible assets and mineral interests, income tax expense and cost of net debt, i.e., all operating income and contribution of equity affiliates to net income. The reconciliation of adjusted EBITDA with the consolidated financial statements is set forth under "Reconciliation of net income (TotalEnergies share) to adjusted EBITDA" on page 5.

[4] Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).

[5] DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charges of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases, excluding the impact of contracts recognized at fair value for the segment and including capital gains on the sale of renewable projects.

[6] Refer to the reconciliation table for different cash flow figures set forth under "Cash Flow" on page 5.

[7] Downstream refers to the Refining & Chemicals business segment and the Marketing & Services business segment.

[8] DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, except those related to leases.

[9] Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

[10] Refer to the reconciliation table for different cash flow figures set forth under "Cash Flow" on page 5.

[11] Gearing = net debt / (net debt +shareholders equity TotalEnergies share + non-controlling interests); excluding leases receivables and leases debts. For additional information, refer to Note 15.1(E) to the Consolidated Financial Statements (starting on page F-76).

[12] Payment, capped for high salaries, to employees of all fully owned companies and of companies in which TotalEnergies holds more than 50%, subject to agreement by their governing bodies

In view of the growth in structural cash flow forecast for 2023 and the share buybacks carried out in 2022 (5% of the share capital), the Board of Directors decided to propose to the Shareholders' Meeting to be held on May 26, 2023 the distribution of a final 2022 dividend of €0.74/share, an increase of 6.5% for the ordinary 2022 dividend to €2.81/share, plus the special dividend of €1/share paid in December 2022. In addition, the Board of Directors confirmed a shareholder return policy for 2023, targeting a payout between 35-40%, which will combine an increase in interim dividends of more than 7% to €0.74/share and share buybacks of $2 billion in the first quarter of 2023.

## Outlook

At the start of 2023, oil prices are moving between $80-90/b in an uncertain environment, where the possible worldwide economic slowdown could be counterbalanced by the recovery of China, with global demand expected to rise in 2023 to more than 100 Mb/d. In this context, OPEC+ countries have shown their willingness to keep prices above $80/b. Refining margins in Europe, particularly for distillates, are expected to remain supported by the effects of the European embargo on Russian petroleum products, which came into effect on February 5, 2023.

The tensions on European gas prices seen in 2022 are expected to continue into 2023, as the limited growth in global LNG production is supposed to meet both higher European LNG demand to replace Russian gas received in 2022 and higher Chinese LNG demand.

Since December 31, 2022, the production related to TotalEnergies' participation in Novatek, of 0.3 Mboe/d in 2022, is no longer consolidated. Excluding Novatek, TotalEnergies expects its hydrocarbon production to increase by approximately 2% to 2.5 Mboe/d in 2023, driven by three main start-ups planned for the year: Block 10 in Oman, Mero 2 in Brazil, and Absheron in Azerbaijan.

Continuing its growth momentum in LNG, TotalEnergies is strengthening its unique position in Europe in 2023 with the commissioning of two floating regasification terminals, the first of which, located in Lubmin, Germany, is already operational.

The Integrated Power business is expected to continue to grow in 2023 with power generation expected to reach more than 40 TWh, a 30% increase year-on-year, benefiting from the full integration of Total Eren, leading to a comparable rise in cash flow.

The implementation of an energy savings program is expected to strengthen Downstream's competitiveness, allowing it to benefit from a favorable European refining environment.

In 2023, TotalEnergies expects net investments of $16-18 billion, including $5 billion dedicated to low-carbon energies.

Supported by the strength of the Company's balance sheet and its cash generation potential, the Board of Directors confirmed a shareholder return policy for 2023 targeting a cash payout of between 35% and 40% as well as the following cash flow allocation priorities:

- a sustainable ordinary dividend through cycles, that was not cut during the COVID-19 crisis, and whose increase is supported by underlying cash flow growth,
- investments to support a strategy balanced between the various energies,
- maintaining a strong balance sheet with a target rating at an "AA" level,
- buybacks to share surplus cash flow generated at high prices and possibly a special dividend in the event of very high prices.

For 2023, this shareholder return policy will combine a 7.2% increase to 0.74 €/share in interim dividends and share buybacks of $2 billion planned for the first quarter.

TotalEnergies confirms its project to spin-off its affiliate, TotalEnergies EP Canada, by listing it on the Toronto stock exchange. TotalEnergies intends to retain a 30% stake in the listed entity, and to distribute 70% of the shares to TotalEnergies SE's shareholders through a special dividend in kind. This transaction would be subject to the approvals that will be taken by the Shareholders' Meeting of TotalEnergies on May 26, 2023.

## 5.2 TotalEnergies results 2020-2022

| As of and for the year ended December 31 *(in millions of dollars, except per share data)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Sales | 280,999 | 205,863 | 140,685 |
| Adjusted EBITDA[(a)(b)] | 71,578 | 42,302 | 21,112 |
| Adjusted net operating income from business segments[(b)] | 38,475 | 20,209 | 6,404 |
| integrated Gas, Renewables & Power | 12,144 | 6,243 | 1,778 |
| Exploration & Production | 17,479 | 10,439 | 2,363 |
| Refining & Chemicals | 7,302 | 1,909 | 1,039 |
| Marketing & Services | 1,550 | 1,618 | 1,224 |
| Net income (loss) from equity affiliates | (1,892) | 3,438 | 452 |
| Fully-diluted earnings per share ($) | 7.85 | 5.92 | (2.90) |
| Fully-diluted weighted-average shares (millions)[(c)] | 2,572 | 2,647 | 2,621 |
| Net income (TotalEnergies share) | 20,526 | 16,032 | (7,242) |
| Organic investments[(d)] | 11,852 | 12,675 | 10,339 |
| Net acquisitions[(e)] | 4,451 | 632 | 2,650 |
| Net investments[(f)] | 16,303 | 13,307 | 12,989 |
| Cash flow from operating activities[(g)] | 47,367 | 30,410 | 14,803 |
| Of which: | | | |
| (increase)/decrease in working capital | 1,191 | (616) | 1,869 |
| financial charges | (1,296) | (1,520) | (1,938) |

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes in fair value. See "Item 5.- 5.3 Business segment reporting" below for further details.
(b) Adjusted EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) corresponds to the adjusted earnings before depreciation, depletion and impairment of tangible and intangible assets and mineral interests, income tax expense and cost of net debt, i.e., all operating income and contribution of equity affiliates to net income. The reconciliation of adjusted EBITDA with the consolidated financial statements is set forth under "Reconciliation of net income (TotalEnergies share) to adjusted EBITDA" on page 5.
(c) In 2020, the effect generated by the grant of TotalEnergies performance shares and by the capital increase reserved for employees (19,007,836 shares) is anti-dilutive. In accordance with IAS 33, the weighted-average number of diluted shares is therefore equal to the weighted-average number of shares.
(d) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(e) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(f) Net investments = organic investments + net acquisitions.
(g) The reconciliation table for different cash flow figures is set forth under "Cash Flow" on page 5.

| Market environment parameters | 2022 | 2021 | 2020 |
|---|---|---|---|
| Brent *($/b)* | 101.3 | 70.9 | 41.8 |
| Henry Hub *($/Mbtu)*[(a)] | 6.5 | 3.7 | 2.1 |
| NBP *($/Mbtu)*[(b)] | 32.4 | 16.4 | 3.3 |
| JKM *($/Mbtu)*[(c)] | 33.8 | 18.5 | 4.4 |
| Average price of liquids *($/b)* [(d)] | 91.3 | 65.0 | 37.0 |
| Average price of gas *($/Mbtu)* [(d)] | 13.15 | 6.60 | 2.96 |
| Average price of LNG *($/Mbtu)* [(e)] | 15.90 | 8.80 | 4.83 |
| Variable cost margin – Refining Europe, VCM[(f)] *($/t)* | 94.1 | 10.5 | 11.5 |

(a) Henry Hub (HH), a pipeline located in Erath, Louisiana, USA, serves as the official delivery point for New York Mercantile Exchange (NYMEX) futures contracts. It is widely used as a price reference for natural gas markets in North America. The hub is operated by Sabine Pipe Line LLC and is connected to four intrastate and nine interstate pipelines, including the Transcontinental, Acadian and Sabine pipelines.
(b) NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.
(c) JKM (Japan-Korea Marker) measures the prices of spot LNG trades in Asia. It is based on prices reported in spot market trades and/or bids and offers collected after the close of the Asian trading day at 16:30 Singapore time.
(d) Consolidated subsidiaries.
(e) Consolidated subsidiaries and equity affiliates.
(f) This indicator represents TotalEnergies' average margin on variable cost for refining in Europe (equal to the difference between TotalEnergies European refined product sales and crude oil purchases with associated variable costs divided by volumes refined in tons).

| Hydrocarbon production* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon production *(kboe/d)* | 2,765 | 2,819 | 2,871 |
| Oil (including bitumen) *(kb/d)* | 1,307 | 1,274 | 1,298 |
| Gas (including condensates and associated NGL) *(kboe/d)* | 1,458 | 1,545 | 1,573 |

| Hydrocarbon production* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon production *(kboe/d)* | 2,765 | 2,819 | 2,871 |
| Liquids *(kb/d)*** | 1,519 | 1,500 | 1,543 |
| Gas *(Mcf/d)* | 6,759 | 7,203 | 7,246 |

* TotalEnergies production = production of Exploration & Production segment (EP) + production of integrated Gas, Renewables & Power segment (iGRP).
** Including condensates and NGL associated with the production of gas.

For a discussion of TotalEnergies' proved reserves, refer to point 2.3.1 of chapter 2 of the Universal Registration Document 2022 (starting on page 90), incorporated herein by reference. See also point 9.1 of chapter 9 of the Universal Registration Document 2022 (starting on page 538), incorporated herein by reference, for additional information on proved reserves, including tables showing changes in proved reserves by region.

**Adjustment Items to net income* (TotalEnergies share)**

| in millions of dollars | 2022 | 2021 | 2020 |
|---|---|---|---|
| Special items affecting net income (TotalEnergies share) | (17,310) | (3,329) | (10,044) |
| Gain (loss) on asset sales | 1,391 | (1,726) | 104 |
| Restructuring charges | (42) | (308) | (364) |
| Impairments | (15,743) | (910) | (8,465) |
| Other | (2,916) | (385) | (1,319) |
| After-tax inventory effect: FIFO vs. replacement cost | 501 | 1,495 | (1,280) |
| Effect of changes in fair value | 1,138 | (194) | 23 |
| **Total adjustments affecting net income (TotalEnergies share)** | **(15,671)** | **(2,028)** | **(11,301)** |

* For details on adjustments to operating income, refer to Note 3(C) to the Consolidated Financial Statements (starting on page F-30).

**Cash Flow**

| in millions of dollars | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Operating cash flow before working capital changes w/o financial charges (DACF)** | **47,025** | 30,660 | 17,635 |
| Financial charges | (1,296) | (1,520) | (1,938) |
| **Operating cash flow before working capital changes ( a )*** | **45,729** | 29,140 | 15,697 |
| (Increase) decrease in working capital** | 2,831 | 188 | 753 |
| Inventory effect | 501 | 1,796 | (1,440) |
| Capital gain from renewable project sales | (64) | (89) | (96) |
| Organic loan repayments from equity affiliates | (1,630) | (626) | (111) |
| **Cash flow from operating activities** | **47,367** | 30,410 | 14,803 |
| Organic investments ( b ) | 11,852 | 12,675 | 10,339 |
| **Free cash flow after organic investments, w/o net asset sales ( a - b )** | **33,877** | 16,465 | 5,358 |
| Net investments ( c ) | 16,303 | 13,307 | 12,989 |
| **Net cash flow ( a - c )** | **29,426** | 15,833 | 2,708 |

* Operating cash flow before working capital changes, is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sales (effective first quarter 2020). Historical data have been restated to cancel the impact of fair valuation of the iGRP segment's contracts.

** Changes in working capital are presented excluding the mark-to-market effect of iGRP's contracts.

**Reconciliation of net income (TotalEnergies share) to adjusted EBITDA**

| in millions of dollars | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Net income - TotalEnergies share** | **20,526** | **16,032** | **(7,242)** |
| Less: adjustment items to net income (TotalEnergies share) | 15,671 | 2,028 | 11,301 |
| **Adjusted net income - TotalEnergies share** | **36,197** | **18,060** | **4,059** |
| *Adjusted items* | | | |
| Add: non-controlling interests | 460 | 331 | 8 |
| Add: income taxes | 20,565 | 9,211 | 1,309 |
| Add: depreciation, depletion and impairment of tangible assets and mineral interests | 12,316 | 12,735 | 13,312 |
| Add: amortization and impairment of intangible assets | 400 | 401 | 352 |
| Add: financial interest on debt | 2,386 | 1,904 | 2,140 |
| Less: financial income and expense from cash & cash equivalents | (746) | (340) | (68) |
| **Adjusted EBITDA** | **71,578** | **42,302** | **21,112** |

## 2022 vs. 2021

In terms of market environment parameters:

- the Brent price increased by 43% to $101.3/b on average in 2022 from $70.9/b on average in 2021;
- TotalEnergies' average liquids price realization[1] increased by 41% to $91.3/b in 2022 from $65.0/b in 2021;
- TotalEnergies' average gas price realization[2] increased by 99% to $13.15/Mbtu in 2022 from $6.60/Mbtu in 2021;
- TotalEnergies' average LNG price realization[3] increased by 81% to $15.90/Mbtu in 2022 from $8.80/Mbtu in 2021;
- TotalEnergies' variable cost margin – Refining Europe (VCM)[4] was $94.1/t on average in 2022, or 9 times greater than $10.5/t in 2021.

Hydrocarbon production was 2,765 kboe/d in 2022, down 2% year-on-year, comprised of:

- +3% due to start-ups and ramp-ups, notably CLOV Phase 2 and Zinia Phase 2 in Angola, Mero 1 in Brazil and Ikike in Nigeria,
- +2% due to the increase in OPEC+ production quotas,
- -3% portfolio effect, notably related to the end of the operating licenses for Qatargas 1 and Bongkot North in Thailand, as well as the effective withdrawal from Myanmar, the exit from Termokarstovoye and Kharyaga in Russia, partially offset by the entry into the Sépia and Atapu producing fields in Brazil,
- -1% due to security-related production cuts in Libya and Nigeria,
- -1% due to price effect,
- -2% due to the natural decline of the fields.

1 Consolidated subsidiaries.
2 Consolidated subsidiaries.
3 Consolidated subsidiaries and equity affiliates.
4 This indicator represents the average margin on variable costs realized by TotalEnergies' European refining business (equal to the difference between the sales of refined products realized by TotalEnergies' European refining and the crude purchases as well as associated variable costs, divided by refinery throughput in tons).

The euro-dollar exchange rate averaged $1.0530/€ in 2022, compared to $1.1827/€ in 2021.

Sales were $280,999 million in 2022, an increase of 36% compared to $205,863 million in 2021. In 2022, external sales increased by 59% for the integrated Gas, Renewables & Power segment, by 37% for the Exploration & Production segment, by 39% for Refining & Chemicals segment and by 25% for the Marketing & Services segment compared to 2021.

Net income (TotalEnergies share) increased to $20,526 million in 2022 compared to $16,032 million in 2021. In 2022, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of ($15,671) million, comprised of $(15,743) million for impairments including $(15.7) billion for impairments and exceptional provisions, including $(14.8) billion in related to Russia and $(1.0) billion related to the withdrawal from the North Platte project in the United States, $(1.7) billion related to the impacts of the European Solidarity Contribution, of the Energy Profits Levy in the United Kingdom on deferred tax, and of the electricity generation infra-marginal income contribution in France, $1.4 billion capital gain on the partial sale of SunPower shares and the revaluation of the retained and consolidated share using the equity method and $1.1 billion of fair value change effects. For a detailed overview of adjustment items for 2022, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23). In 2021, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of ($2,028) million, comprised of $(910) million for impairments (including $(305) million for the withdrawal of TotalEnergies from Myanmar and the $(89) million impairment related to the end of the Qatargas 1 contract) and $(170) million for the loss on the sale of TotalEnergies' interest in Yucal Placer in Venezuela, as well as notably the $(1,379) million loss on the sale of TotalEnergies' interest in Petrocedeño[5] to PDVSA in Venezuela and the $(177) million loss on the Utica sale in the United States, restructuring charges related to the voluntary departure plan in France and Belgium, and a positive inventory effect of $1,495 million for the year of 2021.

Total income taxes in 2022 amounted to $(22,242) million, 2.3 times greater than $(9,587) million in 2021. For further detail on income taxes, refer to Note 11 to the Consolidated Financial Statements (starting on page F-62).

TotalEnergies SE bought back, in 2022, 140,207,743 TotalEnergies SE shares on the market, i.e., 5.35% of the share capital as of December 31, 2022, of which 128,869,261 million for cancellation and, in 2021, 37,306,005 TotalEnergies SE shares on the market, i.e., 1.4% of the share capital as of December 31, 2021, of which 30,665,526 for cancellation. See also "Item 5. - 5.4.3 Shareholders' equity", below.

Fully-diluted earnings per share was $7.85 in 2022 compared to $5.92 in 2021.

Finalized asset sales amounted to:

- $1,421 million in 2022, including farm-downs in the Integrated Power business and the disposal of TotalEnergies' interests in Block 14 in Angola, as well as SunPower's disposal of its Enphase shares, the partial disposal of the Landivisiau power generation plant in France, the sale of TotalEnergies' interest in the Sarsang field in Iraq, and an additional payment related to the 2020 sale of interests in the CA1 offshore block in Brunei; and
- $2,652 million in 2021, including the sale of TotalEnergies' interests in 7 mature non-operated offshore fields and the Cap Lopez oil terminal in Gabon and the sale of a 30% interest in TRAPIL in France as well as the payment by GIP of more than $750 million as part of the tolling agreement for the infrastructure of the Gladstone LNG project in Australia, the sale in France of a 50% interest in a portfolio of renewable projects with a total capacity of 285 MW (100%), the sale of the 10% stake in onshore block OML 17 in Nigeria, the price supplement related to the sale of Block CA1 in Brunei, the sale of the Lindsey refinery in the United Kingdom, the sale of interests in the TBG pipeline in Brazil, the sale of shares in Clean Energy Fuels Corp. (NASDAQ: CLNE)[6], and the sale of its interests in Tellurian Inc. (NASDAQ: TELL) in the United States.

Finalized acquisitions[7] amounted to:

- $5,872 million for the full-year 2022, including the acquisition of an additional 4.08% of the Waha concessions in Libya as well as payments related to the award of the Atapu and Sépia production sharing contracts in Brazil, the acquisition of an interest in Clearway Energy Group and the bonus related to the New York Bight offshore wind concession in the United States.
- $3,284 million for the full-year 2021, including the acquisition of Blue Raven Solar by SunPower in the United States as well as notably the acquisition of a 20% interest for $2 billion in Adani Green Energy Limited, the renewable project developer in India, the acquisition of Fonroche Biogaz in France, the interest in the Yunlin wind project in Taiwan and the 10% increase in its interest in the Lapa block in Brazil.

TotalEnergies' cash flow from operating activities in 2022 was $47,367 million, an increase of 56% compared to $30,410 million in 2021. The change in working capital as determined using the replacement cost method[8] excluding the mark-to-market effect of iGRP's contracts, including capital gain from renewable project sales (effective first quarter 2020) and including organic loan repayment from equity affiliates was a decrease of $1,638 million in 2022, compared to a decrease of $1,270 million in 2021. In 2022, the change in working capital was a decrease of $1,191 million in accordance with IFRS. The difference of $447 million between IFRS and replacement cost method corresponds to the following adjustments: (i) the pre-tax inventory valuation effect of $501 million, (ii) plus the mark-to-market effect of iGRP's contracts of $1,640 million, (iii) less the capital gains from renewables project sale of $64 million and (iv) less the organic loan repayments from equity affiliates of $1,630 million.

Operating cash flow before working capital changes[9] totaled $45,729 million in 2022, an increase of 57% compared to $29,140 million in 2021. Operating cash flow before working capital changes without financial charges (DACF)[10] totaled $47,025 million in 2022, an increase of 53% compared to $30,660 million in 2021.

5 Sale of TotalEnergies' interest in Petrocedeño S.A. to Corporación Venezolana de Petróleo (CVP), an affiliate of Petróleos de Venezuela (PDVSA).
6 As at December 31, 2021, TotalEnergies held an interest of 19.09% in Clean Energy Fuels Corp., an American company listed on NASDAQ and based in California.
7 Acquisitions net of operations with non-controlling interests.
8 For information on the replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
9 Operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to- market effect of iGRP's contracts and including capital gain from renewable projects sales (effective first quarter 2020). Operating cash flow before working capital changes provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the replacement cost method, refer to refer to Note 3 to the Consolidated Financial Statements (starting on page F-23). The reconciliation table for different cash flow figures is set forth under "Cash Flow" on page 5.
10 DACF = debt adjusted cash flow, is defined as operating cash flow before working capital changes and without financial charges.

TotalEnergies' net cash flow[11] totaled $29,426 million in 2022 compared to $15,833 million in 2021, reflecting the $16.6 billion increase in operating cash flow before working capital changes and the $3.0 billion increase in net investments to $16,303 million in 2022.

See also "Item 5. - 5.4 Liquidity and Capital Resources" below.

## 2021 vs. 2020

In terms of market environment parameters:

- the Brent price increased by 69% to $70.9/b on average in 2021 from $41.8/b on average in 2020;
- TotalEnergies' average liquids price realization[1] increased by 76% to $65.0/b in 2021 from $37.0/b in 2020;
- TotalEnergies' average gas price realization[2] was $6.60/Mbtu in 2021, or 2.2 times greater than $2.96/Mbtu in 2020;
- TotalEnergies' average LNG price realization[3] increased by 82% to $8.80/Mbtu in 2021 from $4.83/Mbtu in 2020;
- TotalEnergies' variable cost margin – Refining Europe (VCM)[4] decreased by 9% to $10.5/t on average in 2021 compared to $11.5/t in 2020.

Hydrocarbon production was 2,819 kboe/d for the full-year 2021, down 2% year-on-year, comprised of:

- +3% due to start-ups and ramp-ups, including North Russkoye in Russia, Iara in Brazil and Johan Sverdrup in Norway, as well as the resumption of production in Libya;
- +3% due to the increase in gas demand and OPEC+ quotas,
- -1% due to portfolio effect, notably the disposals of assets in the UK and the CA1 block in Brunei;
- -1% due to the price effect;
- -3% due to planned maintenance and unplanned downtime, particularly in the UK and Norway (Snøhvit);
- -3% due to the natural field decline.

The euro-dollar exchange rate averaged $1.1827/€ in 2021, compared to $1.1422/€ in 2020.

Sales were $205,863 million in 2021 compared to $140,685 million in 2020, an increase of 46%. In 2021, external sales were 2 times greater than 2020 for the integrated Gas, Renewables & Power segment, 1.5 times greater for the Exploration & Production segment, 1.5 times greater for Refining & Chemicals segment and 1.3 times greater for the Marketing & Services segment.

Net income (TotalEnergies share) increased to $16,032 million in 2021 compared to $(7,242) million in 2020, due to higher oil and gas prices. In 2021, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of ($2,028) million, comprised of $(910) million for impairments (including $(305) million for the withdrawal of TotalEnergies from Myanmar and the $(89) million impairment related to the end of the Qatargas 1 contract) and $(170) million for the loss on the sale of TotalEnergies' interest in Yucal Placer in Venezuela, as well as notably the $(1,379) million loss on the sale of TotalEnergies' interest in Petrocedeño[12] to PDVSA in Venezuela and the $(177) million loss on the Utica sale in the United States, restructuring charges related to the voluntary departure plan in France and Belgium, and a positive inventory effect of $1,495 million for the year. In 2020, total adjustments to net income (TotalEnergies share), which include the after-tax inventory effect, special items and the impact of changes in fair value, had an impact of $(11,301) million, including $(8.5) billion of impairments, related mainly to oil sands assets in Canada.

Total income taxes in 2021 amounted to $(9,587) million, 30 times greater than $(318) million in 2020.

TotalEnergies SE bought back, in 2021, 37,306,005 TotalEnergies SE shares on the market, i.e., 1.4% of the share capital as of December 31, 2021, of which 30,665,526 million for cancellation and, in 2020, 13,236,044 TotalEnergies SE shares on the market, i.e., 0.50% of the share capital as of December 31, 2020, of which 12,233,265 for cancellation. See also "Item 5. - 5.4.3 Shareholders' equity", below.

Fully-diluted earnings per share was $5.92 in 2021 compared to $(2.90) in 2020.

Finalized asset sales amounted to:

- $2,652 million for the full-year 2021, including the sale of TotalEnergies' interests in 7 mature non-operated offshore fields and the Cap Lopez oil terminal in Gabon and the sale of a 30% interest in TRAPIL in France as well as the payment by GIP of more than $750 million as part of the tolling agreement for the infrastructure of the Gladstone LNG project in Australia, the sale in France of a 50% interest in a portfolio of renewable projects with a total capacity of 285 MW (100%), the sale of the 10% stake in onshore block OML 17 in Nigeria, the price supplement related to the sale of Block CA1 in Brunei, the sale of the Lindsey refinery in the United Kingdom, the sale of interests in the TBG pipeline in Brazil, the sale of shares in Clean Energy Fuels Corp. (NASDAQ: CLNE)[13] , and the sale of its interests in Tellurian Inc. (NASDAQ: TELL) in the United States; and
- $1.5 billion for the full-year 2020, comprised notably of the sale of Enphase shares by SunPower (NASDAQ: SPWR)[14], the sale of TotalEnergies' corporate offices in Brussels, the sale of non-strategic assets in the UK North Sea, the completion of the sale of Block CA1 in Brunei, the sale of TotalEnergies' interest in the Fos Cavaou regasification terminal in France, and the sale of 50% of a portfolio of solar and wind assets from Total Quadran in France.

11 See the reconciliation table for different cash flow figures set forth under "Cash Flow" on page 5.
12 Sale of TotalEnergies' interest in Petrocedeño S.A. to Corporation Venezolana de Petróleos (CVP), an affiliate of Petróleos de Venezuela (PDVSA).
13 As at December 31, 2021, TotalEnergies held an interest of 19.09% in Clean Energy Fuels Corp., an American company listed on NASDAQ and based in California.
14 As at December 31, 2021, TotalEnergies held an interest of 50.83% in SunPower, an American company listed on NASDAQ and based in California.

Finalized acquisitions[15] amounted to:

- $3,284 million for the full-year 2021, including the acquisition of Blue Raven Solar by SunPower in the United States as well as the acquisition of a 20% interest for $2 billion in Adani Green Energy Limited, a renewable project developer in India, the acquisition of Fonroche Biogaz in France, the interest in the Yunlin wind project in Taiwan and the 10% increase in its interest in the Lapa block in Brazil.
- $4.2 billion for the full-year 2020, comprised notably of the acquisition of Tullow's entire interest in the Lake Albert project in Uganda, the acquisition of CCGT assets and of a portfolio of customers from Energías de Portugal in Spain, the acquisition in India of 50% of a portfolio of installed solar activities from Adani Green Energy Limited, the finalization of the acquisition of 37.4% stake in Adani Gas Ltd, the acquisition of interests in Blocks 20 and 21 in Angola and the payment for a second bonus tranche linked to taking the 10% stake in the Arctic LNG 2 project in Russia.

TotalEnergies' cash flow from operating activities for the full-year 2021 was $30,410 million, 2.1 times greater than $14,803 million for the full-year 2020. The change in working capital as determined using the replacement cost method[16] excluding the mark-to-market effect of iGRP's contracts, including capital gain from renewable project sales (effective first quarter 2020) and including organic loan repayment from equity affiliates was a decrease of $1,269 million for the full-year 2021, compared to an increase of $894 million for the full-year 2020. For the full-year 2021, the change in working capital was an increase of $616 million in accordance with IFRS. The difference of $1,885 million between IFRS and replacement cost method corresponds to the following adjustments: (i) the pre-tax inventory valuation effect of $1,796 million, (ii) plus the mark-to-market effect of iGRP's contracts of $804 million, (iii) less the capital gains from renewables project sale of $89 million and (iv) less the organic loan repayments from equity affiliates of $626 million.

Operating cash flow before working capital changes[17] totaled $29,140 million for the full-year 2021, an increase of 86% compared to $15,697 million for the full-year 2020. Operating cash flow before working capital changes without financial charges (DACF)[18] totaled $30,660 million for the full-year 2021, an increase of 74% compared to $17,635 million for the full-year 2020.

TotalEnergies' net cash flow[19] totaled $15,833 million in 2021 compared to $2,708 million in 2020, reflecting the $13.4 billion increase in operating cash flow before working capital changes and a $318 million increase in net investments to $13,307 million in 2021.

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[15] Acquisitions net of operations with non-controlling interests.
[16] For information on the replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
[17] Operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sales (effective first quarter 2020). Operating cash flow before working capital changes provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the replacement cost method, refer to refer to Note 3 to the Consolidated Financial Statements (starting on page F-23). The reconciliation table for different cash flow figures is set forth under "Cash Flow" on page 5.
[18] DACF = debt adjusted cash flow, is defined as operating cash flow before working capital changes and without financial charges.
[19] See the reconciliation table for different cash flow figures set forth under "Cash Flow" on page 5.

## 5.3 Business segment reporting

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies and which is reviewed by the main operational decision-making body of TotalEnergies, namely the Executive Committee.

Due to their unusual nature or particular significance, certain transactions qualifying as “special items” are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. In certain instances, certain transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to occur again in following years.

In accordance with IAS 2, TotalEnergies values inventories of petroleum products in its financial statements according to the First-In, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments’ performance and facilitate the comparability of the segments’ performance with those of its main competitors. In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results under the FIFO and replacement cost methods.

The effect of changes in fair value presented as an adjustment item reflects, for trading inventories and storage contracts, differences between internal measures of performance used by TotalEnergies’ Executive Committee and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices. TotalEnergies, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in TotalEnergies’ internal economic performance. IFRS precludes recognition of this fair value effect. Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted business segment results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items, excluding the effect of changes in fair value. For further information on the adjustments affecting operating income on a segment-by-segment basis, and for a reconciliation of segment figures to figures reported in TotalEnergies’ audited consolidated financial statements, see Note 3 to the Consolidated Financial Statements (starting on page F-23).

TotalEnergies measures performance at the segment level on the basis of adjusted net operating income. Net operating income comprises operating income of the relevant segment after deducting the amortization and the depreciation of intangible assets other than leasehold rights, translation adjustments and gains or losses on the sale of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, income from equity affiliates and capitalized interest expenses) and after income taxes applicable to the above. The income and expenses not included in net operating income that are included in net income are interest expenses related to long-term liabilities net of interest earned on cash and cash equivalents, after applicable income taxes (net cost of net debt and non-controlling interests). Adjusted net operating income excludes the effect of the adjustments (special items and the inventory valuation effect) described above. For further discussion of the calculation of net operating income and the calculation of return on average capital employed (ROACE)[1], see Note 3 to the Consolidated Financial Statements (starting on page F-23). Performance indicators excluding the adjustment items, such as adjusted incomes and ROACE are meant to facilitate the analysis of the financial performance and the comparison of income between periods.

The organization of TotalEnergies’ activities is structured around the four following segments:

- an integrated Gas, Renewables & Power segment comprising integrated gas (including LNG) and low carbon electricity businesses. It includes the upstream and midstream LNG activity. In order to provide shareholders with a better understanding of the growth strategy of LNG and electricity/renewables, the Board of Directors decided that from the first quarter 2023 integrated Gas, Renewables & Power results will separately report the contributions of the Integrated LNG and Integrated Power activities;
- an Exploration & Production segment. Starting September 2021, it notably includes the carbon sink activity (carbon storage and nature-based solutions) that was previously reported in the integrated Gas, Renewables & Power segment. Business segment information relating to fiscal year 2020 has not been restated due to the non-material impact of this change;
- a Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil Supply, Trading and marine Shipping; and
- a Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products.

### 5.3.1 integrated Gas, Renewables & Power (iGRP) segment

**Hydrocarbon production and Liquefied Natural Gas (LNG) sales**

| Hydrocarbon production for LNG | 2022 | 2021 | 2020 |
|---|---|---|---|
| iGRP *(kboe/d)* | 469 | 529 | 530 |
| Liquids *(kb/d)* | 53 | 63 | 69 |
| Gas *(Mcf/d)* | 2,267 | 2,541 | 2,519 |

[1] ROACE = ratio of adjusted net operating income to average capital employed between the beginning and the end of the period.

| LNG sales | 2022 | 2021 | 2020 |
|---|---|---|---|
| Overall LNG sales *(Mt)* | 48.1 | 42.0 | 38.3 |
| including sales from equity production* | 17.0 | 17.4 | 17.6 |
| including sales by TotalEnergies from equity production and third-party purchases | 42.8 | 35.1 | 31.1 |

* The Company's equity production may be sold by TotalEnergies or by joint ventures.

| Integrated Power | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Portfolio of renewable power generation gross capacity *(GW)* (1),(2),(3)** | **69.0** | 43.0 | 28.6 |
| o/w installed capacity | 16.8 | 10.3 | 7.0 |
| o/w capacity in construction | 6.1 | 6.5 | 4.1 |
| o/w capacity in development | 46.0 | 26.2 | 17.5 |
| **Gross renewables capacity with PPA (GW) (1),(2),(3)** | **33.4** | 28.0 | 17.5 |
| **Portfolio of renewable power generation net capacity *(GW)* (3)** | **45.5** | 31.7 | 19.2 |
| o/w installed capacity | 7.7 | 5.1 | 3.1 |
| o/w capacity in construction | 4.1 | 4.6 | 2.3 |
| o/w capacity in development | 33.6 | 22.0 | 13.8 |
| **Net power production *(TWh)* (4)** | **33.2** | 21.2 | 14.1 |
| incl. power production from renewables | 10.4 | 6.8 | 4.0 |
| Clients power – BtB and BtC *(Million)* (3) | 6.1 | 6.1 | 5.6 |
| Clients gas – BtB and BtC *(Million)* (3) | 2.7 | 2.7 | 2.7 |
| Sales power – BtB and BtC *(TWh)* | 55.3 | 56.6 | 47.3 |
| Sales gas – BtB and BtC *(TWh)* | 96.3 | 101.2 | 95.8 |

1 Includes 20% of Adani Green Energy Limited (AGEL) gross capacity effective first quarter 2021.
2 Includes 50% of Clearway Energy Group's gross capacity effective third quarter 2022.
2 End of period data.
4 Solar, wind, hydroelectric and combined-cycle gas turbine (CCGT) plants.

| Results (in millions of dollars except ROACE) | 2022 | 2021 | 2020 |
|---|---|---|---|
| External sales | 48,753 | 30,704 | 15,629 |
| Operating income[(a)] | 8,580 | 3,350 | (527) |
| Net income (loss) from equity affiliates and other items | 2,766 | 2,745 | 794 |
| Tax on net operating income | (1,712) | (602) | 71 |
| Net operating income[(a)] | 9,634 | 5,493 | 338 |
| Adjustments affecting net operating income | 2,510 | 750 | 1,440 |
| Adjusted net operating income[(b)] | 12,144 | 6,243 | 1,778 |
| including adjusted income from equity affiliates | 5,838 | 2,696 | 375 |
| Organic investments[(c)] | 1,904 | 3,341 | 2,720 |
| Net acquisitions[(d)] | 2,089 | 1,165 | 2,183 |
| Net investments[(e)] | 3,993 | 4,506 | 4,903 |
| ROACE | 22.9% | 12.3% | 4.1% |

(a) For the definitions of "operating income" and "net operating income", refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
(b) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(c) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(d) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(e) Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

## 2022 vs. 2021

Gross installed renewable electricity generation capacity reached 16.8 GW at year-end 2022, up 6.5 GW year-on-year, including nearly 4 GW from the acquisition of 50% of Clearway Energy Group in the United States and 0.8 GW from the start-up of the Al Kharsaah photovoltaic project in Qatar.

TotalEnergies continues to implement its strategy of integrating the electricity and gas chain in Europe. Net electricity generation stood at 33.2 TWh in 2022, an increase of 57% compared to 2021, due to higher utilization rates of flexible power plants (CCGT) as well as a 53% increase in generation from renewable sources. The portfolio of power customers exceeded 6 million at year-end 2022.

External sales for the iGRP segment in 2022 were $48,753 million, an increase of 59% compared to $30,704 million in 2021.

Net operating income for the iGRP segment was $9,634 million in 2022, an increase of 75% compared to $5,493 million in 2021.

Adjusted net operating income for the iGRP segment was $12,144 million in 2022, an increase of 95% compared to $6,243 million in 2021, due to its integrated LNG portfolio, in particular its regasification capacity in Europe, which positioned it to capture the benefit of the favorable pricing environment, and due to the growth of the Integrated Power business.

Adjusted net operating income for the iGRP segment excludes special items and the impact of changes in fair value. For the full-year 2022, the exclusion of special items and changes in fair value had a positive impact of $2,510 million on the segment's adjusted net operating income, compared to a positive impact of $750 million in 2021.

For the full-year 2022, the segment's cash flow from operating activities excluding financial charges, except those related to leases was $9,670 million, 11.7 times higher than $827 million in 2021.

For the full-year 2022, the segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $10,754 million, an increase of 76% compared to $6,124 million 2021, for the same reasons as adjusted net operating income.

In this context, the iGRP segment's ROACE for the full-year 2022 was 22.9% compared to 12.3% for the full-year 2021.

For information on the segment's investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources" below.

## 2021 vs. 2020

Gross installed renewable power generation capacity grew to 10.3 GW at year-end 2021, up 3.3 GW year-on-year, due in particular to the acquisition by AGEL of the operating assets of SB Energy India's 5 GW renewable portfolio, the continued growth of start-ups in India and the commissioning of the Dunkirk battery-powered storage site in France.

TotalEnergies continues to implement its strategy of integrating the electricity and gas chain in Europe. Net electricity production stood at 21.2 TWh in 2021, up 50% compared to 2020, due to strong growth in electricity production from renewable sources as well as combined cycle gas turbine (CCGT) power plants, strengthened by the acquisition of four CCGT plants in France and Spain in the fourth quarter 2020. The portfolio of electricity customer exceeded 6 million at year-end 2021.

External sales for the iGRP segment for the full-year 2021 were $30,704 million, 2 times greater than $15,629 million in 2020.

Net operating income for the iGRP segment was $5,493 million in 2021, 16 times greater than $338 million in 2020.

Adjusted net operating income for the iGRP segment was $6,243 million for the full-year 2021, a 3.5-fold increase from 2020, due to higher LNG prices and the strong performance of the gas, LNG and electricity trading activities.

Adjusted net operating income for the iGRP segment excludes special items and the impact of changes in fair value. For the full-year 2021, the exclusion of special items had a positive impact of $750 million on the segment's adjusted net operating income, compared to a positive impact of $1,440 million for the full-year 2020.

For the full-year 2021, the segment's cash flow from operating activities excluding financial charges, except those related to leases was $827 million, a decrease of 61% from $2,129 million for 2020, mainly due to variations in margin calls related to hedging mechanisms in a context of high volatility in the gas and electricity markets.

For the full-year 2021, the segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $6,124 million, up 79% compared to $3,148 million for the full-year 2020, for the same reasons as adjusted net operating income.

In this context, the iGRP segment's ROACE for the full-year 2021 was 12.3% compared to 4.1% for the full-year 2020.

### 5.3.2 Exploration & Production segment

| **Hydrocarbon production** | **2022** | **2021** | **2020** |
|---|---|---|---|
| EP *(kboe/d)* | 2,296 | 2,290 | 2,341 |
| Liquids *(kb/d)** | 1,466 | 1,437 | 1,474 |
| Gas *(Mcf/d)* | 4,492 | 4,662 | 4,727 |

| **Results *(in millions of dollars except effective tax rate and ROACE)*** | **2022** | **2021** | **2020** |
|---|---|---|---|
| External sales | 9,942 | 7,246 | 4,973 |
| Operating income[(a)] | 32,496 | 16,310 | (5,514) |
| Net income (loss) from equity affiliates and other items | (9,943) | (760) | 697 |
| Effective tax rate[(b)] | 50.8% | 45.2% | 29.4% |
| Tax on net operating income | (17,445) | (7,506) | (208) |
| Net operating income[(a)] | 5,108 | 8,044 | (5,025) |
| Adjustments affecting net operating income | 12,371 | 2,395 | 7,388 |
| Adjusted net operating income[(c)] | 17,479 | 10,439 | 2,363 |
| including adjusted income from equity affiliates | 1,335 | 1,230 | 928 |
| Organic investments[(d)] | 7,507 | 6,690 | 5,519 |
| Net acquisitions[(e)] | 2,520 | (167) | 544 |
| Net investments[(f)] | 10,027 | 6,523 | 6,063 |
| ROACE | 25.4% | 13.9% | 2.8% |

(a) For the definitions of "operating income" and "net operating income", refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
(b) Effective tax rate = tax on adjusted net operating income/(adjusted net operating income – adjusted income from equity affiliates - dividends received from investments - impairment of goodwill + tax on adjusted net operating income).
(c) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(d) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(e) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(f) Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

[1] DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charges of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases, excluding the impact of contracts recognized at fair value for the segment and including capital gains on the sale of renewable projects.

## 2022 vs. 2021

External sales for the Exploration & Production (EP) segment in 2022 were $9,942 million, an increase of 37% compared to $7,246 million in 2021.

Net operating income for the EP segment was $5,108 million in 2022, a decrease of 36% compared to $8,044 million in 2021.

The EP segment's adjusted net operating income was $17,479 million in 2022, an increase of 67% compared to 2021, due to higher oil and gas prices. Adjusted net operating income for the EP segment excludes special items. For the full-year 2022, the exclusion of special items had a positive impact of $12,371 million in 2022 on the segment's adjusted net operating income, compared to a positive impact of $2,395 million in 2021. The effective tax rate increased from 45.2% in 2021 to 50.8% in 2022.

For the full-year 2022, the segment's cash flow from operating activities excluding financial charges, except those related to leases was $27,654 million, an increase of 26% compared to $22,009 million in 2021.

For the full-year 2022, the segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $26,080 million, an increase of 39% compared to $18,717 million in 2021, due to higher oil and gas prices.

In this context, the EP segment's ROACE for the full-year 2022 was 25.4% compared to 13.9% for the full-year 2021.

For additional information on the EP segment's capital expenditures, refer to point 1.6 (starting on page 34) of chapter 1 and point 2.3.2 (on page 91) of chapter 2 of the Universal Registration Document 2022, incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources", below.

## 2021 vs. 2020

External sales for the EP segment in 2021 were $7,246 million compared to $4,973 million in 2020, an increase of 46%.

Net operating income for the EP segment was $8,044 million in 2021, 2.6 times greater than $(5,025) million in 2020.

The Exploration & Production (EP) segment's adjusted net operating income was $10,439 million in 2021, more than four times higher than in 2020, due to the sharp increase in oil and gas prices. Adjusted net operating income for the EP segment excludes special items. For the full-year 2021, the exclusion of special items had a positive impact of $2,395 million on the segment's adjusted net operating income compared to a positive impact of $7,388 million for the full-year 2020. The effective tax rate increased from 29.4% in 2020 to 45.2% in 2021.

For the full-year 2021, the segment's cash flow from operating activities excluding financial charges, except those related to leases was $22,009 million, 2.2 times greater than $9,922 million for the full-year 2020.

For the full-year 2021, the segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $18,717 million, an increase of 93% compared to $9,684 million for the full-year 2020, in line with higher oil and gas prices.

In this context, the EP segment's ROACE for the full-year 2021 was 13.9% compared to 2.8% for the full-year 2020.

### 5.3.3 Downstream (Refining & Chemicals and Marketing & Services segments)

| Results (in millions of dollars) | 2022 | 2021 | 2020 |
|---|---|---|---|
| External sales | 222,279 | 167,888 | 120,066 |
| Operating income[(a)] | 10,671 | 5,923 | 627 |
| Net income (loss) from equity affiliates and other items | 865 | 626 | (356) |
| Tax on net operating income | (3,331) | (1,806) | (456) |
| Net operating income[(a)] | 8,205 | 4,743 | (185) |
| Adjustments affecting net operating income | 647 | (1,216) | 2,448 |
| Adjusted net operating income[(b)] | 8,852 | 3,527 | 2,263 |
| Organic investments[(c)] | 2,354 | 2,576 | 2,023 |
| Net acquisitions[(d)] | (159) | (368) | 32 |
| Net investments[(e)] | 2,195 | 2,208 | 2,055 |

(a) For the definitions of "operating income" and "net operating income", refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
(b) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(c) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(d) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(e) Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

The Downstream's cash flow from operating activities excluding financial charges, except those related to leases, was $11,787 million for the full year 2022, an increase of 34% compared to $8,806 million for the full year 2021.

The Downstream's operating cash flow before working capital changes without financial charges (DACF)[2] was $10,069 million for the full year 2022, an increase of 83% compared to $5,502 million for the full year 2021.

[1] DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases. Operating cash flow before changes in working capital at replacement cost provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and the replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

[2] DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases. Operating cash flow before changes in working capital at replacement cost provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

## A. Refining & Chemicals segment

| Refinery throughput and utilization rates[a] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Total refinery throughput *(kb/d)* | 1,472 | 1,180 | 1,292 |
| France | 348 | 190 | 244 |
| Rest of Europe | 623 | 568 | 618 |
| Rest of world | 501 | 423 | 430 |
| Utilization rates based on crude only[b] | 82% | 64% | 61% |

(a) Includes refineries in Africa reported in the Marketing & Services segment.
(b) Based on distillation capacity at the beginning of the year, excluding Grandpuits (shut down first quarter 2021) from 2021 and Lindsey refinery (divested) from second quarter 2021.

| Petrochemicals production and utilization rate | 2022 | 2021 | 2020 |
|---|---|---|---|
| Monomers* (kt) | 5,005 | 5,775 | 5,519 |
| Polymers (kt) | 4,549 | 4,938 | 4,934 |
| Steamcracker utilization rate** | 76% | 90% | 83% |

* Olefins.
** Based on olefins production from steamcrackers and their treatment capacity at the start of the year.

| Results (in millions of dollars except ROACE) | 2022 | 2021 | 2020 |
|---|---|---|---|
| External sales | 121,618 | 87,600 | 56,615 |
| Operating income[a] | 8,308 | 3,564 | (814) |
| Net income (loss) from equity affiliates and other items | 885 | 518 | (393) |
| Tax on net operating income | (2,544) | (1,068) | 59 |
| Net operating income[a] | 6,649 | 3,014 | (1,148) |
| Adjustments affecting net operating income | 653 | (1,105) | 2,187 |
| Adjusted net operating income[b] | 7,302 | 1,909 | 1,039 |
| Organic investments[c] | 1,319 | 1,502 | 1,209 |
| Net acquisitions[d] | (38) | (217) | (54) |
| Net investments[e] | 1,281 | 1,285 | 1,155 |
| ROACE | 94.2% | 19.6% | 8.8% |

(a) For the definitions of “operating income” and “net operating income”, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
(b) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(c) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(d) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(e) Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

## 2022 vs. 2021

Refinery throughput increased by 25% in 2022 compared to 2021, due to the increase in the utilization rate of refineries.

Monomer production decreased 13% in 2022 compared to 2021, after the very strong post-COVID-19 increase observed in 2021. Polymer production decreased 8% in 2022 compared to 2021, for the same reason that monomer production decreased.

External sales for the Refining & Chemicals segment in 2022 were $121,618 million, an increase of 39% compared to $87,600 million in 2021.

Net operating income for the Refining & Chemicals segment was $6,649 million in 2022, 2.2 times greater than $3,014 million in 2021.

Adjusted net operating income for the Refining & Chemicals segment was $7,302 million in 2022, 3.8 times higher than $1,909 million in 2021, due to high refining margins in Europe and the United States and higher refinery utilization rates. Adjusted net operating income for this segment excludes any after-tax inventory valuation effect and special items. For the full-year 2022, the exclusion of the inventory valuation effect had a negative impact of $336 million on the segment’s adjusted net operating income, compared to a negative impact of $1,296 million for the full-year 2021. For the full-year 2022, the exclusion of special items had a positive impact of $989 million on the segment’s adjusted net operating income, compared to a positive impact of $191 million for the full-year 2021.

For the full-year 2022, the Refining & Chemicals segment’s cash flow from operating activities excluding financial charges, except those related to leases was $8,663 million, an increase of 34% compared to $6,473 million in 2021.

For the full-year 2022, the Refining & Chemicals segment’s operating cash flow before working capital changes without financial charges (DACF)[2] was $7,704 million in 2022, 2.6 times higher compared to $2,946 million in 2021 due to higher refining margins and throughput.

In this context, the Refining & Chemicals segment’s ROACE for the full-year 2022 was 94.2% compared to 19.6% for the full-year 2021.

For information on the Refining & Chemicals segment’s investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference. See also “Item 5. - 5.4 Liquidity and Capital Resources”, below.

2 DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases. Operating cash flow before changes in working capital at replacement cost provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

## 2021 vs. 2020

Refinery throughput decreased by 9% in 2021 compared to 2020, due to the prolonged shutdown of the Donges refinery for economic reasons, the shutdown of the Grandpuits refinery for conversion to a zero-oil platform and the sale of the Lindsey refinery in the United Kingdom as well as the planned major shutdown of the Leuna refinery in Germany in the second quarter 2021.

Monomer production increased 5% in 2021 compared to 2020, supported by demand, and notably due to the restart of the Port Arthur steam cracker in the United States, in maintenance in 2020. Polymer production was stable for full-year 2021 compared to full-year 2020.

External sales for the Refining & Chemicals segment in 2021 were $87,600 million, 1.5 times greater than $56,615 million in 2020.

Net operating income for the Refining & Chemicals segment was $3,014 million in 2021, 3.6 times greater than $(1,148) million in 2020.

Adjusted net operating income for the Refining & Chemicals segment increased 84% to $1,909 million in 2021, compared to $1,039 million in 2020, linked to the strong performance of petrochemicals and the increase in European and American refining margins, despite the increase in energy costs. Adjusted net operating income for this segment excludes any after-tax inventory valuation effect and special items. For the full-year 2021, the exclusion of the inventory valuation effect had a negative impact of $1,296 million on the segment's adjusted net operating income, compared to a positive impact of $1,165 million for the full-year 2020. For the full-year 2021, the exclusion of special items had a positive impact of $191 million on the segment's adjusted net operating income, compared to a positive impact of $1,022 million for the full-year 2020.

For the full-year 2021, the Refining & Chemicals segment's cash flow from operating activities excluding financial charges, except those related to leases was $6,473 million, 2.7 times greater than $2,438 million for the full-year 2020.

For the full-year 2021, the Refining & Chemicals segment's operating cash flow before working capital changes without financial charges (DACF)[2] was $2,946 million, an increase of 19% year-on-year compared to $2,472 million for the full-year 2020, in line with the strong performance of petrochemicals and refining margins that increased, although still low, at the end of 2021.

In this context, the Refining & Chemicals segment's ROACE for the full-year 2021 was 19.6% compared to 8.8% for the full-year 2020.

# B. Marketing & Services segment

| **Petroleum product sales[(a)] *(kb/d)*** | **2022** | **2021** | **2020** |
|---|---|---|---|
| Total Marketing & Services sales | 1,468 | 1,503 | 1,477 |
| Europe | 824 | 826 | 823 |
| Rest of world | 644 | 677 | 654 |

(a) Excludes trading and bulk Refining sales.

| **Results (in millions of dollars except ROACE)** | **2022** | **2021** | **2020** |
|---|---|---|---|
| External sales | 100,661 | 80,288 | 63,451 |
| Operating income[(a)] | 2,363 | 2,359 | 1,441 |
| Net income (loss) from equity affiliates and other items | (20) | 108 | 37 |
| Tax on net operating income | (787) | (738) | (515) |
| Net operating income[(a)] | 1,556 | 1,729 | 963 |
| Adjustments affecting net operating income | (6) | (111) | 261 |
| Adjusted net operating income[(b)] | 1,550 | 1,618 | 1,224 |
| Organic investments[(c)] | 1,035 | 1,074 | 814 |
| Net acquisitions[(d)] | (121) | (151) | 86 |
| Net investments[(e)] | 914 | 923 | 900 |
| ROACE | 18.9% | 18.4% | 14.3% |

(a) For the definitions of "operating income" and "net operating income", refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).
(b) Adjusted for special items, inventory valuation effect and the effect of changes in fair value. See Note 3 to the Consolidated Financial Statements (starting on page F-23).
(c) Organic investments = net investments excluding acquisitions, asset sales and other operations with non-controlling interests. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.
(d) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(e) Net investments = organic investments + net acquisitions. For additional information on investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference.

## 2022 vs. 2021

Petroleum product sales were down 2% in 2022 compared to 2021, with lower sales to professional and industrial customers, particularly in Europe, partially offset by the recovery of aviation and network activities worldwide.

External sales for the Marketing & Services segment in 2022 were $100,661 million, an increase of 25% compared to $80,288 million in 2021.

Net operating income for the Marketing & Services segment was $1,556 million in 2022, a decrease of 10% compared to $1,729 million in 2021.

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2 DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases. Operating cash flow before changes in working capital at replacement cost provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

Adjusted net operating income for the Marketing & Services segment was $1,550 million in 2022, a decrease of 4% compared to $1,618 million in 2021, mainly impacted by the evolution of the €-$ exchange rate. Adjusted net operating income for this segment excludes any after-tax inventory valuation effect and special items. For the full-year 2022, the exclusion of the inventory valuation effect had a negative impact of $194 million on the segment's adjusted net operating income, compared to a negative impact of $236 million for the full year 2021. For the full-year 2022, the exclusion of special items had a positive impact of $188 million on the segment's adjusted net operating income, compared to a positive impact of $125 million for the full year 2021.

For the full-year 2022, the Marketing & Services segment's cash flow from operating activities excluding financial charges, except those related to leases was $3,124 million, an increase of 34% compared to $2,333 million for the full year 2021.

For the full-year 2022, the Marketing & Services segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $2,365 million, a decrease of 7% compared to $2,556 for the full year 2021.

In this context, the Marketing & Services segment's ROACE for the full-year 2022 was 18.9% compared to 18.4% for the full-year 2021.

For information on the Marketing & Services segment's investments, refer to point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference. See also "Item 5. - 5.4 Liquidity and Capital Resources", below.

## 2021 vs. 2020

Petroleum product sales showed year-on-year growth of 2% for the full-year 2021, due to the improvement in the health situation and the global economic rebound. This increase reflects mainly the recovery in retail activity and, at the end of 2021, of the aviation activity.

External sales for the Marketing & Services segment in 2021 were $80,288 million, 1.3 times greater than $63,451 million in 2020.

Net operating income for the Marketing & Services segment was $1,729 million in 2021, an increase of 80% compared to $963 million in 2020.

Adjusted net operating income for the Marketing & Services segment was $1,618 million for the full-year 2021, an increase of 32% compared to $1,224 million for the full-year 2020. Adjusted net operating income for this segment excludes any after-tax inventory valuation effect and special items. For the full-year 2021, the exclusion of the inventory valuation effect had a negative impact of $236 million on the segment's adjusted net operating income, compared to a positive impact of $137 million for the full-year 2020. For the full-year 2021, the exclusion of special items had a positive impact of $125 million on the segment's adjusted net operating income, compared to a positive impact of $124 million for the full-year 2020.

For the full-year 2021, the Marketing & Services segment's cash flow from operating activities excluding financial charges, except those related to leases was $2,333 million, an increase of 11% compared to $2,101 million for the full-year 2020.

For the full-year 2021, the Marketing & Services segment's operating cash flow before working capital changes without financial charges (DACF)[1] was $2,556 million, an increase of 17% compared to $2,180 million for the full-year 2020. These results are back to levels comparable to those of the pre-crisis period, despite a 19% drop in sales in 2021 compared to 2019 (most of which is linked to the strategy to arbitrage low margin sales).

In this context, the Marketing & Services segment's ROACE for the full-year 2021 was 18.4% compared to 14.3% for the full-year 2020.

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1 DACF = debt adjusted cash flow. Operating cash flow before working capital changes without financial charge of the segment is defined as the cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases. Operating cash flow before changes in working capital at replacement cost provides information on underlying cash flow without the short-term impacts of changes in inventory and other working capital elements at replacement cost. For information on the inventory effect and replacement cost method, refer to Note 3 to the Consolidated Financial Statements (starting on page F-23).

## 5.4 Liquidity and capital resources

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Cash flow from operating activities** | **47,367** | **30,410** | **14,803** |
| Including (increase) decrease in working capital | 1,191 | (616) | 1,869 |
| **Cash flow used in investing activities** | **(15,116)** | **(13,656)** | **(13,079)** |
| Total expenditures | (19,802) | (16,589) | (15,534) |
| Total divestments | 4,686 | 2,933 | 2,455 |
| **Cash flow from / (used) in financing activities** | **(19,272)** | **(25,497)** | **1,398** |
| **Net increase (decrease) in cash and cash equivalents** | **12,979** | **(8,743)** | **3,122** |
| Effect of exchange rates | (1,295) | (1,183) | 794 |
| Cash and cash equivalents at the beginning of the period | 21,342 | 31,268 | 27,352 |
| **Cash and cash equivalents at the end of the period** | **33,026** | **21,342** | **31,268** |

TotalEnergies' cash requirements for working capital, capital expenditures, acquisitions and dividend payments over the past three years were financed primarily by a combination of funds generated from operations, net borrowings and divestments of assets. In the current environment, TotalEnergies expects its external debt to be principally financed from the international debt capital markets. TotalEnergies continually monitors the balance between cash flow from operating activities and net expenditures. In TotalEnergies SE's opinion, its working capital is sufficient for its present requirements.

### 5.4.1 Cash flow

Cash flow from operating activities in 2022 was $47,367 million compared to $30,410 million in 2021 and $14,803 million in 2020. The increase of $16,957 million from 2021 to 2022 was partly due to the increase in net income.

Cash flow used in investing activities in 2022 was $15,116 million compared to $13,656 million in 2021 and $13,079 million in 2020. The increase of $1,460 million from 2021 to 2022 was mainly due to higher expenditures in the Exploration & Production segment. The increase of $577 million from 2020 to 2021 was also mainly due to higher expenditures in the Exploration & Production segment. Total expenditures in 2022 were $19,802 million compared to $16,589 million in 2021 and $15,534 million in 2020. During 2022, 54% of the expenditures were made by the Exploration & Production segment (as compared to 44% in 2021 and 44% in 2020), 33% by the integrated Gas, Power & Renewables segment (as compared to 38% in 2021 and 40% in 2020), 7% by the Refining & Chemicals segment (compared to 10% in 2021 and 9% in 2020) and 6% by the Marketing & Services segment (compared to 7% in 2021 and 7% in 2020). The main source of funding for the expenditures was cash from operating activities and issuances of non-current debt in 2022, cash from operating activities and net repayment in 2021, cash from operating activities and issuances of non-current debt in 2020.

For additional information on expenditures, please refer to the discussions in "Item 5.- 5.1 Overview", "Item 5.- 5.2 TotalEnergies results 2020-2022" and "Item 5.- 5.3 Business segment reporting" above, and point 1.6 of chapter 1 of the Universal Registration Document 2022 (starting on page 34), incorporated herein by reference and Note 15.1.D to the Consolidated Financial Statements on page F-76.

Divestments, based on selling price and net of cash sold, in 2022 were $4,686 million compared to $2,933 million in 2021 and $2,455 million in 2020. In 2022, TotalEnergies' principal divestments were assets sales of $1,421 million compared to $2,652 million in 2021, consisting mainly of the sales described in "Item 5.- 5.2 Group results 2020-2022" above.

Cash flow from/(used in) financing activities in 2022 was $(19,272) million compared to $(25,497) million in 2021 and $1,398 million in 2020. The decrease in cash flow used in financing activities in 2022 compared to 2021 was mainly due to the decrease in the net issuance of non-current debt of $1,108 million in 2022 compared to a net repayment of (359) million in 2021, to a significant decrease in current financial assets and liabilities ($3,944 million in 2022 compared to $(8,075) million in 2021) due to a decrease in initial margins held as part of TotalEnergies' activities on organized markets partially compensated by an increase in buyback of shares ($7,711 million in 2022 compared to $1,823 million in 2021). The significant use of cash in financing activities in 2021 compared to a net inflow in 2020 was primarily due to the net repayment of non-current debt of $(359) million in 2021 compared to a net issuance of $15,800 million in 2020, to a significant increase in current financial assets and liabilities ($8,075 million in 2021 compared to $604 million in 2020) due to an increase in initial margins held as part of TotalEnergies' activities on organized markets and to the increase in buyback of shares ($1,823 million in 2021 compared to $611 million in 2020).

### 5.4.2 Indebtedness

TotalEnergies' non-current financial debt at year-end 2022 was $45,264 million, compared to $49,512 million at year-end 2021 and $60,203 million at year-end 2020. For further information on the level of borrowing and the type of financial instruments, including maturity profile of debt and currency and interest rate structure, see point 1.10.2 of chapter 1 in the Universal Registration Document 2022 (starting on page 59), incorporated herein by reference and Note 15 ("Financial structure and financial costs") to the Consolidated Financial Statements starting on page F-72. For further information on the treasury policies, including the use of instruments for hedging purposes and the currencies in which cash and cash equivalents are held, see "Item 11. Quantitative and Qualitative Disclosures About Market Risk".

Cash and cash equivalents at year-end 2022 were $33,026 million compared to $21,342 million at year-end 2021 and $31,268 million at year-end 2020.

### 5.4.3 Shareholders' equity

Shareholders' equity at year-end 2022 was $114,570 million, compared to $114,999 million at year-end 2021 and $106,085 million at year-end 2020.

- Changes in shareholders' equity in 2022 were primarily due to the impacts of comprehensive income, dividend payments, and the buy-back of TotalEnergies SE shares.
- Changes in shareholders' equity in 2021 were primarily due to the impacts of comprehensive income, dividend payments, the buy-back of TotalEnergies SE shares and the issuance of perpetual subordinated notes issued by TotalEnergies SE in January 2021, in two tranches of €1.5 billion (callable in 2027 and 2032), recorded as equity for approximately €3.3 billion (or approximately $3.6 billion using the €/$ exchange rate on January 29, 2021 of €1=$1.2135 as released by the Board of Governors of the Federal Reserve System February 1, 2021).

- Changes in shareholders' equity in 2020 were primarily due to the impacts of comprehensive income, dividend payments, the buy-back of TotalEnergies SE shares and the issuance of common shares of TotalEnergies SE and perpetual subordinated notes issued by TotalEnergies SE in September 2020 (callable in 2030) recorded as equity for €1 billion (or approximately $1.2 billion using the €/$ exchange rate on September 4, 2020 of €1 = $1.1820 as released by the Board of Governors of the Federal Reserve System on September 7, 2020).

**Variation of the number of shares composing the share capital**

| | | |
|---|---|---|
| **As of December 31, 2020[(a)]** | | **2,653,124,025** |
| | *Capital reduction by cancellation of treasury shares[(b)]* | *(23,284,409)* |
| | *2021 Capital increase reserved for employees* | *10,589,713* |
| **As of December 31, 2021[(c)]** | | ***2,640,429,329*** |
| | *Capital reduction by cancellation of treasury shares(b)* | *(30,665,526)* |
| | *Deferred contribution pursuant to the 2017 capital increase reserved for employees* | *9,471* |
| | *2022 Capital increase reserved for employees* | *9,358,011* |
| **As of December 31, 2022[(d)]** | | **2,619,131,285** |

(a) Including 24,392,703 treasury shares deducted from consolidated shareholders' equity.
(b) This transaction had no impact on the consolidated financial statements of TotalEnergies SE, the number of fully-diluted weighted-average shares or on the earnings per share
(c) Including 33,841,104 treasury shares deducted from consolidated shareholders' equity.
(d) Including 137,187,667 treasury shares deducted from consolidated shareholders' equity.

**TotalEnergies share buyback**

| Fiscal year | Total number of shares purchased | Shares repurchased for cancellation *(Units/$)* | Shares allocated to performance share plans |
|---|---|---|---|
| 2022 | 140,207,743 | 128,869,261 / 7.00 billion | 11,338,482 |
| 2021 | 37,306,005 | 30,665,526 / 1.5 billion | 6,640,479 |
| 2020 | 13,236,044 | 12,233,265 / 0.55 billion | 1,002,779 |

## 5.4.4 Net-debt-to-capital ratio

As of December 31, 2022, TotalEnergies' net-debt-to-capital ratio excluding leases[1] and including initial margins held as part of its activities on organized markets was 7.0% compared to 15.3% and 21.7% at year-ends 2021 and 2020 respectively. The decreases from 2021 to 2022 and from 2020 to 2021 were mostly due to the change in net debt. For additional information, please refer to the Notes to the Consolidated Financial Statements (starting on page F-14).

For information on committed credit facilities and liquidity risk, please refer to Note 15.3 to the Consolidated Financial Statements (starting on page F-82).

## 5.4.5 Material cash requirements

In 2022, the largest part of TotalEnergies' capital expenditures of $19,802 million was made up of additions to intangible assets and property, plant and equipment (approximately 60%), with the remainder attributable to equity-method affiliates and to acquisitions of subsidiaries.

- In the integrated Gas, Renewables & Power segment, approximately 36% of capital expenditures were related mainly to facilities investments with the balance being related mainly to acquisitions.
- In the Exploration & Production segment, as described in more detail under point 9.1.6 and 9.1.7 of chapter 9 of the Universal Registration Document 2022 (beginning on page 551), incorporated herein by reference, capital expenditures in 2022 were principally development costs (approximately 68%, mainly for construction of new production facilities), exploration expenditures (successful or unsuccessful, approximately 3%) and acquisitions of proved and unproved properties (approximately 29%).
- In the Refining & Chemicals segment, approximately 81% of capital expenditures in 2022 were related to refining and petrochemical activities (essentially 72% for existing units including maintenance and major turnarounds and 28% for new constructions), the balance being related mainly to Hutchinson.
- In the Marketing & Services segment, approximately 99% of capital expenditures in 2022 were development expenditures, mainly in Europe and Africa, with the balance being mainly attributable to acquisitions.

For additional information on capital expenditures, refer to the discussion above in "Item 5.- 5.1 Overview", "Item 5.- 5.2 TotalEnergies results 2020-2022" and "Item 5.- 5.3 Business segment reporting", above, as well as point 1.6 of chapter 1 (on page 34) of the Universal Registration Document 2022, incorporated herein by reference.

[1] For additional information, refer to Note 15.1(E) to the Consolidated Financial Statements (starting on page F-76).

As of December 31, 2022, TotalEnergies' material contractual obligations include debt obligations net of hedging instruments, purchases obligations, asset retirement obligations and lease obligations. For additional information on TotalEnergies' contractual obligations, refer to Note 13 to the Consolidated Financial Statements (starting on page F-66). TotalEnergies has other obligations in connection with pension plans that are described in Note 10 ("Payroll, staff and employee benefits obligations") to the Consolidated Financial Statements (starting on page F-59). These obligations are not contractually fixed as to timing and amount. Other non-current liabilities, detailed in Note 12 ("Provisions and other non-current liabilities") to the Consolidated Financial Statements (starting on page F-64), are liabilities related to risks that are probable and amounts that can be reasonably estimated. However, no contractual agreements exist related to the settlement of such liabilities, and the timing of the settlement is not known.

TotalEnergies estimates the combination of its sources of capital will continue to be adequate to fund its short- and long- term contractual obligations.

Information on TotalEnergies' guarantees and other commitments and contingencies are presented in Note 13 ("Off balance sheet commitments and contractual obligations") to the Consolidated Financial Statements (starting on page F-66). TotalEnergies does not currently consider that these guarantees, or any other off-balance sheet arrangements of TotalEnergies or any other members of TotalEnergies, have or are reasonably likely to have, currently or in the future, a material effect on the TotalEnergies' financial condition, changes in financial condition, revenues or expenses, results of operation, liquidity, capital expenditures or capital resources.

## 5.5 Research and development

For a discussion of TotalEnergies' R&D policies and activities, refer to points 1.6.2 and 1.7 of chapter 1 (starting on pages 36 and 37, respectively) of the Universal Registration Document 2022, incorporated herein by reference.

## 5.6 Situation of the Company in Russia at March 23, 2023

Given the activities carried out by TotalEnergies in connection with Russia, the Company believes it is useful to present in the section below an update on the situation since the invasion of Ukraine by Russia on February 24, 2022.

**Principal activities of TotalEnergies in connection with Russia and principles of conduct**

**On March 1, 2022**, TotalEnergies announced that it condemns Russia's military aggression against Ukraine, supports the scope and strength of the sanctions put in place by Europe that will be implemented by the Company regardless of the consequences on its asset management, and that it will no longer provide capital for new projects in Russia.

**On March 22, 2022**, considering the worsening conflict, TotalEnergies reaffirmed its firmest condemnation of Russia's military aggression against Ukraine, which has tragic consequences for the Ukrainian population and threatens peace in Europe. To act responsibly, as a European company and in accordance with its values, **the Company defined clear principles of conduct for managing its Russian related business:**

- **Ensure strict compliance with current and future European sanctions, no matter what the consequences on the management of its assets in Russia, and gradually suspend its activities in Russia, while assuring its workforce's safety;**
- **Provide no further capital of TotalEnergies SE for the development of projects in Russia;**
- **Do not reverse the purpose of sanctions against Russia: do not unwarrantedly transfer value to Russian interests by withdrawing from assets;**
- **Help ensure the security of the European continent's energy supply within the framework defined by European authorities; and**
- **No longer enter into or renew contracts to purchase Russian oil and petroleum products, in order to halt all its purchases of Russian oil and petroleum products as soon as possible and by the end of 2022 at the latest. TotalEnergies announced that since February 25, 2022, it would not trade Russian oil or oil products on the spot markets, including spot trading of Russian natural gas or LNG.**

TotalEnergies restated that it did not operate any oil or gas field, or Liquefied Natural Gas (LNG) plant, in Russia and that was a minority shareholder, at that time, in a number of non-state-owned Russian companies: Novatek (19.4%)[1] , Yamal LNG (20%)[2] , Arctic LNG 2 (10%)[3] , TernefteGaz (49%)[4] and partner with 20% in the Kharyaga joint venture operated by Zarubezhneft[5] , without any activity or operational responsibility on those sites.

On the same day, concerning the Arctic LNG 2 project in particular, given the uncertainty created by technological and financial sanctions on the ability to carry out the Arctic LNG 2 project currently under construction and their probable tightening with the worsening conflict, TotalEnergies SE decided no longer to record proven reserves for Arctic LNG 2 in its accounts.

On **April 27, 2022**, considering the new sanctions adopted by the European authorities on April 8, 2022, notably prohibiting export from European Union countries of goods and technology for use in the liquefaction of natural gas benefitting a Russian company, it appeared that these new prohibitions constituted additional risks on the execution of the Arctic LNG 2 project. As a result, TotalEnergies decided to record in its accounts, as of March 31, 2022, an impairment of $4.1 billion, concerning notably Arctic LNG 2.

On **July 28, 2022**, in the context of its second quarter and first half 2022 results, TotalEnergies announced that had recorded in its accounts a new $3.5 billion impairment charge related mainly to the potential impact of international sanctions on the value of its Novatek stake.

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[1] PAO Novatek is a Russian company listed on the Moscow and London stock exchanges, and in which TotalEnergies held an interest of 19.4% as of December 31, 2022

[2] OAO Yamal LNG is a Russian company jointly owned by PAO Novatek, TotalEnergies EP Yamal (20.02%), YAYM Limited, and China National Oil and Gas Exploration Development Corporation (CNODC), a subsidiary of CNPC, as of December 31, 2022.

[3] OOO Arctic LNG 2 is a Russian company jointly owned by PAO Novatek, TotalEnergies EP Salmanov (10%), CNODC Dawn Light Limited, CEPR Limited and Japan Arctic LNG, as of December 31, 2022.

[4] Terneftegas is a company jointly owned by PAO Novatek, and TotalEnergies EP Termokarstovoye SAS (49%) before the sale of its interest.

[5] Kharyaga is a non-incorporated joint venture with Zarubezhneft (operator, 40%), Equinor (30%) and Nenets Oil Company (10%). TotalEnergies finalized on August 3, 2022 the sale of its 20% interest in Kharyaga à Zarubezhneft.

On **August 26, 2022**, TotalEnergies restated that in the context of the implementation of its principles of conduct, it would continue its duty to contribute toward securing Europe's gas supply from the Yamal LNG plant within the framework of long-term contracts that it must honor as long as Europe's governments do not impose sanctions on Russian gas.

TotalEnergies had also announced the gradual suspension of its activities in Russia that do not contribute to the security of energy supply of Europe. This included assets producing oil (Kharyaga field) and gas for the local Russian market (Termokarstovoye field) as well as other local businesses (lubricants, batteries) which were mothballed in the first half of 2022.

In accordance with these principles, TotalEnergies had announced on July 6, 2022 the sale of its remaining 20% interest in the Kharyaga oil project to Zarubezhneft. This sale was finalized on August 3, 2022. The Company also announced that it had agreed on July 18, 2022, to sell to Novatek TotalEnergies' 49% interest in Terneftegaz, which operates the Termokarstovoye gas and condensates field in Russia, on economic terms enabling TotalEnergies to recover the outstanding amounts invested in the field. This sale was finalized on September 15, 2022.

On **October 27, 2022**, in the context of its third quarter 2022 results, TotalEnergies announced that had recorded in its accounts a new $3.1 billion impairment charge related mainly to the potential impact of international sanctions on the value of its Novatek stake.

On **December 9, 2022**, TotalEnergies reiterated that it holds a 19.4% stake in Novatek, that it cannot sell given the shareholders' agreements in effect, as it is forbidden for TotalEnergies to sell any asset to one of Novatek's main shareholders who is under sanctions.

The Company highlighted that in view of the European sanctions in force since the beginning of the war, the two directors representing TotalEnergies on the board of directors of Novatek have to abstain from voting in meetings of the board of directors of this company, in particular on financial matters and that they are therefore no longer in a position to fully carry out their duties on the board, which might become an issue for the governance of this company.

Under these circumstances, the Board of Directors of TotalEnergies decided to withdraw the representatives of the Company from the board of PAO Novatek with immediate effect. As a result, as the criteria for significant influence within the meaning of the accounting regulations that apply to the Company are not met, TotalEnergies will no longer equity account for its 19.4% stake in Novatek in the Company's accounts. In addition, TotalEnergies will no longer book reserves for its interest in Novatek.

On February 8, 2023, TotalEnergies announced that it had recorded in its accounts for the fourth quarter and full-year 2022 results a new $4.1 billion impairment charge related to the deconsolidation of Novatek.

As a result, for the full-year of 2022, TotalEnergies recorded -$14.8 billion impairment charge and provisions on Russia in its accounts.

The table below presents TotalEnergies' producing assets and entities in Russia as of December 31, 2022, and the interest held in the asset or entities (TotalEnergies share in %).

**Producing assets as of December 31, 2022 in Russia**

| **Exploration & Production segment** | iGRP segment |
|---|---|
| Non operated : None. | Non operated: Yamal LNG (20.02%) |
| TotalEnergies no longer equity account for its 19.4% stake in PAO Novatek as of December, 31, 2022. | |

The tables below present the average daily production of liquids and natural gas of TotalEnergies, in Russia, as well as the Upstream Capital Employed per project in Russia as of December 31, 2022.

| **TotalEnergies' average daily liquids and natural gas production in Russia in 2022** | | **Liquids kb/d[(a)]** | **Natural gas** Mcf/d(b) | **Total kboe/d** |
|---|---|---|---|---|
| **Russia** | | **65** | **2,165** | **468** |
| including production share of consolidated subsidiaries | | 1 | 1 | 1 |
| | *Kharyaga* | *1* | *1* | *1* |
| including production share of equity affiliates | | 64 | 2,164 | 467 |
| | *PAO Novatek* | *53* | *1,466* | *329* |
| | *Yamal LNG* | *4* | *606* | *115* |
| | *Terneftegas* | *7* | *92* | *23* |

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas.

| **Upstream Capital Employed in Russia (M$)** | **December 31, 2022** | **December 31, 2021** |
|---|---|---|
| PAO Novatek | 0 | 6,243 |
| Yamal LNG | 4,626 | 4,333 |
| Arctic LNG 2 | 0 | 2,450 |
| Terneftegas | 0 | 573 |
| Kharyaga | 0 | 53 |
| Provisions | (1,752) | — |
| **Total Upstream Capital Employed** | **2,874** | **13,652** |

Activities in Russia in 2022

Oil and gas production in Russia accounted for approximately 17% of TotalEnergies' hydrocarbon production in 2022.

In the Exploration-Production segment, oil and natural gas production in 2022 was mainly from its interest in PAO Novatek (19.4%), which has been deconsolidated since December 31, 2022, as well as from its interests in the Termokarstovoye (49%) and Kharyaga (20%) fields, which were sold on September 15, 2022 and August 3, 2022, respectively.

In the iGRP segment, LNG production in Russia was from the Yamal LNG project. This development project of the onshore South Tambey field (gas and condensates) located on the Yamal peninsula was launched in 2013 by the company OAO Yamal LNG.

TotalEnergies holds a direct 20.02% interest in the project through its subsidiary TotalEnergies EP Yamal. The project includes a four-train gas liquefaction plant with a nominal capacity of 17.4 Mt/y of LNG. In 2022, the plant's production exceeded the nominal capacity reaching 21 Mt.

In addition, TotalEnergies hold a 10% direct interest in the Arctic LNG 2 project (19.8 MT/y, under construction) since 2019 through the subsidiary TotalEnergies EP Salmanov. Given the uncertainties that technological and financial sanctions pose on the ability to complete the Arctic LNG 2 project, TotalEnergies has ceased to recognize as proved reserves the resources associated with the Arctic LNG 2 project as of December 31, 2021, and has provisioned in its accounts the value of its investments as of March 31, 2022.

As of December 31, 2022, TotalEnergies no longer recognizes reserves from its interest in Novatek and holds 5% of its proved reserves in Russia in connection with its interest in Yamal LNG.

In the Marketing & Services segment, TotalEnergies stopped producing lubricants in Russia at the end of May 2022, in accordance with its principles of conduct published on March 22, 2022 and announced the sale of these activities in March 2023 to a company created by the Russian management team of the subsidiary TotalEnergies Marketing Russia.

For more detailed information on economic sanctions against Russia, see Section 3.2 of Chapter 3 of the Universal Registration Document 2022 (starting on page 130), incorporated herein by reference.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

The following information concerning directors and senior management from the Universal Registration Document 2022 is incorporated herein by reference:

- composition of the Board of Directors (introduction and point 4.1.1 of chapter 4, starting on page 178); and
- information concerning the General Management (point 4.1.5 of chapter 4, starting on page 216).

The following information concerning compensation from the Universal Registration Document 2022 is incorporated herein by reference:

- responsible compensation policy (point 5.6.1.2 of chapter 5, starting on page 329); and
- compensation for the administration and management bodies (point 4.3 of chapter 4, starting on page 225).

The following information concerning Board practices and corporate governance from the Universal Registration Document 2022 is incorporated herein by reference:

- functioning of the Board of Directors (point 4.1.2 of chapter 4, starting on page 202);
- report of the Lead Independent Director on her mandate (point 4.1.3 of chapter 4, starting on page 214);
- assessment of the Board of Directors practices (point 4.1.4 of chapter 4, on page 215); and
- statement regarding corporate governance (point 4.2 of chapter 4, on page 224).

The following information concerning employees and share ownership from the Universal Registration Document 2022 is incorporated herein by reference:

- responsible management of the company's workforce (point 5.6.1.1 of chapter 5, starting on page 327);
- shares held by the administration and management bodies (point 4.1.6 of chapter 4, starting on page 222); and
- employee shareholding (point 6.4.2 of chapter 6, on page 395).

TotalEnergies believes that the relationship between its management and labor unions is, in general, satisfactory.

# ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

The following information concerning shareholders from the Universal Registration Document 2022 is incorporated herein by reference:

- major shareholders (point 6.4.1 of chapter 6, starting on page 394); and
- shareholding structure (point 6.4.3 of chapter 6, on page 396).

TotalEnergies' main transactions with related parties (principally all the investments carried under the equity method) and the balances receivable from and payable to them are shown in point 8.3 of Note 8 ("Equity affiliates, other investments and related parties") to the Consolidated Financial Statements (on page F-52). In the ordinary course of its business, TotalEnergies enters into transactions with various organizations with which certain of its directors or executive officers may be associated, but no such transactions of a material or unusual nature have been entered into during the period commencing on January 1, 2020 and ending on the date of this document. For further information on regulated agreement and undertakings and related-party transactions, refer to point 4.4.1 of chapter 4 of the Universal Registration Document 2022 (on page 257), incorporated herein by reference.

# ITEM 8. FINANCIAL INFORMATION

The following information from the Universal Registration Document 2022 is incorporated herein by reference:

- legal and arbitration proceedings (point 3.5 of chapter 3, on page 142);
- dividend policy and other related information (point 6.2 of chapter 6, starting on page 387);
- supplemental oil and gas information (points 9.1 and 9.2 of chapter 9, starting on page 538);
- report on payments made to governments (point 9.3 of chapter 9, starting on page 558); and
- reporting of payments to governments for purchases of oil, gas and minerals (EITI reporting) (point 9.4 of chapter 9, starting on page 587).

The Consolidated Financial Statements and Notes thereto are included in pages F-9 et seq. attached hereto.

Except for certain events mentioned in "Item 5. Operating and financial review and prospects " and point 3.5 of chapter 3 (on page 142) of the Universal Registration Document 2022, incorporated herein by reference and Note 17 to the Consolidated Financial Statements (on page F-90), no significant changes to TotalEnergies' financial or commercial situation have occurred since the date of the Consolidated Financial Statements.

Refer to "Item 18. Financial statements" for the reports of the statutory auditors.

# ITEM 9. THE OFFER AND LISTING

## 9.1 Markets

The main trading markets for the TotalEnergies shares are the following: Euronext Paris (France) and the New York Stock Exchange ("NYSE", United States). The shares are also listed on Euronext Brussels (Belgium) and the London Stock Exchange (United Kingdom).

## 9.2 Offer and listing details

Provided below is certain information on trading on Euronext Paris and the New York Stock Exchange (NYSE). For additional information on listing details and share performance, refer to point 6.1 in chapter 6 of the Universal Registration Document 2022 (starting on page 384), incorporated herein by reference.

### 9.2.1 Trading on Euronext Paris

Official trading of listed securities on Euronext Paris, including the TotalEnergies shares, is transacted through EU investment service providers that are members of Euronext Paris and takes place continuously on each business day in Paris from 9:00 a.m. to 5:30 p.m. (Paris time), with a fixing of the closing price at 5:35 p.m. (Paris time). Euronext Paris may suspend or resume trading in a security listed on Euronext Paris if the quoted price of the security exceeds certain price limits defined by the regulations of Euronext Paris. The Euronext Paris ticker symbol for TotalEnergies SE is TTE.

The markets of Euronext Paris settle and transfer ownership two trading days after a transaction (T+2). Highly liquid shares, including those of TotalEnergies SE, are eligible for deferred settlement (Service de Règlement Différé - SRD). Payment and delivery for shares under the SRD occurs on the last trading day of each month. Use of the SRD service requires payment of a commission.

In France, the TotalEnergies shares are included in the principal index published by Euronext Paris (the "CAC 40 Index"). The CAC 40 Index is derived daily by comparing the total market capitalization of forty stocks traded on Euronext Paris to the total market capitalization of the stocks that made up the CAC 40 Index on December 31, 1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 Index indicates trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. In the UK, the shares are included in both FTSE Eurotop 100 and FTSEurofirst 100 indices. As a result of the creation of Euronext, the TotalEnergies shares are included in Euronext 100, the index representing Euronext's blue chip companies based on market capitalization. The TotalEnergies shares are also included in the Stoxx Europe 50 and Euro Stoxx 50, blue chip indices comprised of the fifty most highly capitalized and most actively traded equities throughout Europe and within the European Monetary Union, respectively.

### 9.2.2 Trading on the New York Stock Exchange

ADSs evidenced by ADRs have been listed on the NYSE since October 25, 1991. JPMORGAN CHASE BANK, N.A. serves as depositary with respect to the ADSs evidenced by ADRs traded on the NYSE. One ADS corresponds to one TotalEnergies share.

The NYSE ticker symbol for TotalEnergies SE is TTE.

# ITEM 10. ADDITIONAL INFORMATION

## 10.1 Share capital

The following information from the Universal Registration Document 2022 is incorporated herein by reference:

- information concerning the share capital (point 7.1 of chapter 7, starting on page 402);
- the use of delegations of authority and power granted to the Board of Directors with respect to share capital increases (`point 4.4.2 of chapter 4, starting on page 258);
- information on share buybacks (point 6.3 of chapter 6, starting on page 390); and
- factors likely to have an impact in the event of a public offering (point 4.4.4 of chapter 4, starting on page 260).

## 10.2 Memorandum and articles of association

The following information from the Universal Registration Document 2022 is incorporated herein by reference:

- information concerning the articles of incorporation and bylaws, and other information (point 7.2 of chapter 7, starting on page 403); and
- participation of shareholders at shareholders' meetings (point 4.4.3 of chapter 4, on page 259).

## 10.3 Material contracts

There have been no material contracts (not entered into in the ordinary course of business) entered into by members of TotalEnergies since March 24, 2021.

## 10.4 Exchange controls

Under current French exchange control regulations, no limits exist on the amount of payments that TotalEnergies may remit to residents of the United States. Laws and regulations concerning foreign exchange controls do require, however, that an accredited intermediary must handle all payments or transfer of funds made by a French resident to a non-resident.

## 10.5 Taxation

### 10.5.1 General

This section generally summarizes the material U.S. federal income tax and French tax consequences of owning and disposing of shares or ADSs of TotalEnergies SE to U.S. Holders that hold their shares or ADSs as capital assets for tax purposes. A U.S. Holder is a beneficial owner of shares or ADSs that is (i) a citizen or resident of the United States for U.S. federal income tax purposes, (ii) a domestic corporation or other domestic entity treated as a corporation for U.S. federal income tax purposes, (iii) an estate whose income is subject to U.S. federal income tax regardless of its source, or (iv) a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person.

This section does not address the Medicare tax on net investment income, the application of special accounting rules under Section 451(b) of the Internal Revenue Code of 1986, as amended ("IRC"), U.S. federal estate or gift taxes or any taxes from jurisdictions other than the United States and France. This section does not apply to members of special classes of holders subject to special rules, including without limitation:

- broker-dealers;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- tax-exempt organizations;
- certain financial institutions;
- insurance companies;
- U.S. pension funds;
- U.S. Regulated Investment Companies (RICs), Real Estate Investment Trusts (REITs), and Real Estate Mortgage Investment Conduits (REMICs);
- persons who are liable for the alternative minimum tax;
- persons that actually or constructively own 10% or more of the shares of TotalEnergies SE (by vote or value);
- persons who acquired the shares or ADSs pursuant to the exercise of any employee share option or otherwise as consideration;
- persons that purchase or sell shares or ADSs as part of a wash sale for U.S. federal income tax purposes;
- persons holding offsetting positions in respect of the shares or ADSs (including as part of a straddle, hedging, conversion or integrated transaction);
- U.S. expatriates; and
- persons whose functional currency is not the U.S. dollar.

If a partnership or other entity or arrangement treated as a partnership for U.S. federal income tax purposes holds shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. Partners of a partnership holding these shares or ADSs should consult their tax advisors as to the tax consequences of owning or disposing of shares or ADSs, as applicable.

Under French law, specific rules apply to trusts, in particular specific tax and filing requirements; additionally, specific rules apply to wealth, estate and gift taxes as they apply to trusts. Given the complex nature of these rules and the fact that their application varies depending on the status of the trust, the grantor, the beneficiary and the assets held in the trust, the following summary does not address the tax treatment of shares or ADSs held in a trust. If shares or ADSs are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax advisor regarding the specific tax consequences of acquiring, owning and disposing of shares or ADSs.

In addition, the discussion below is limited to U.S. Holders that (i) are residents of the United States for purposes of the Treaty (as defined below), (ii) do not maintain a permanent establishment or fixed base in France to which the shares or ADSs are attributable and through which the respective U.S. Holders carry on, or have carried on, a business (or, if the holder is an individual, performs or has performed independent personal services), and (iii) are otherwise eligible for the benefits of the Treaty in respect of income and gain from the shares or ADSs (in particular, under the "Limitation on Benefits" provision of the Treaty). In addition, this section is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

The discussions below of the material U.S. federal income tax consequences to U.S. Holders of owning and disposing of shares or ADSs of TotalEnergies SE are based on the IRC, Treasury regulations promulgated thereunder and judicial and administrative interpretations thereof, as well as on the Convention Between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital dated August 31, 1994, as amended (the "Treaty"), all as in effect on the date hereof and all of which are subject to change, which change could apply retroactively and could affect the tax consequences described below. The description of the material French tax consequences is based on the laws of the Republic of France and French tax regulations, all as currently in effect, as well as the Treaty, as currently in effect. These laws, regulations and the Treaty are subject to change, possibly on a retroactive basis.

In general, and taking into account the earlier assumptions, for U.S. federal income tax purposes, a U.S. Holder of ADRs evidencing ADSs will be treated as the owner of the shares represented by those ADRs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to U.S. federal income tax. The U.S. Treasury has expressed concerns that intermediaries in the chain of ownership between the holder of an ADS and the issuer of the security underlying the ADS may be taking actions that are inconsistent with the beneficial ownership of the underlying security. Accordingly, the creditability of any French taxes and the availability of the reduced tax rate for any dividends received by certain non-corporate U.S. Holders (as discussed below), could be affected by actions taken by intermediaries in the chain of ownership between the holders of the ADSs and TotalEnergies if as a result of such actions the U.S. Holders of the ADSs are not properly treated as beneficial owners of underlying shares.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects of the ownership or disposition of the shares and ADSs and is not intended to substitute competent professional advice. Individual situations of holders of shares and ADSs may vary from the description made below. The following summary does not address the French tax treatment applicable to dividends paid in so-called "Non Cooperative Countries and Territories" ("NCCT") within the meaning of Article 238-0 A of the French Code général des impôts ("French Tax Code") as such provision or list may be amended from time to time or replaced by any other provision or list having a similar purpose. It does not apply to dividends paid to persons established or domiciled in such a NCCT, or paid to a bank account opened in a financial institution located in such a NCCT, nor does it apply to capital gains realized by persons established or domiciled in such a NCCT. Furthermore, the following summary does not address the tax treatment applicable to temporary transfers and other similar transactions which could, under certain conditions, fall within the scope of the anti-abuse measure set forth in Article 119 bis A of the French Tax Code.

Holders are urged to consult their own tax advisors regarding the U.S. federal, state and local, and the French and other tax consequences of owning and disposing shares or ADSs of TotalEnergies in their respective circumstances. In particular, a holder is encouraged to confirm with its advisor whether the holder is a U.S. Holder eligible for the benefits of the Treaty.

### 10.5.2 Taxation of dividends

## French taxation

The term "dividends" used in the following discussion means dividends within the meaning of the Treaty.

Dividends paid to non-residents of France who are U.S. Holders are in principle subject to a French withholding tax regardless of whether they are paid in cash, in shares or a mix of both. The French withholding tax is levied (i) at a rate of 12.8% for dividends paid to U.S. Holders who are individuals and (ii) at a rate of 25% as from 2022 for dividends paid to U.S. Holders that are legal entities (the "Legal Entities U.S. Holders") subject to more favorable provisions of the Treaty as described below and certain more favorable French domestic law provisions.

The withholding tax is in principle levied on the gross amount of dividends. However, Article 235 quinquies of the French tax code resulting from the Finance Law n° 2021-1900, published in the Official Journal on December 31, 2021 introduced the possibility, under certain conditions, for non-residents legal entities to compute the withholding tax on a net basis and to recover the excess of the tax initially withheld on a gross amount.

Under the Treaty, a U.S. Holder is generally entitled to a reduced rate of French withholding tax of 15% with respect to dividends, provided that certain requirements are satisfied. This reduced rate is, in practice, only of interest to Legal Entities U.S. Holders subject to the withholding tax at a rate of 25% in 2022.

Administrative guidelines (Bulletin Officiel des Finances Publiques, BOI-INT-DG-20-20-20-20-12/09/2012) (the "Administrative Guidelines") set forth the conditions under which the reduced French withholding tax at the rate of 15% may be available. The immediate application of the reduced 15% rate is available to those U.S. Holders that may benefit from the so-called "simplified procedure" (within the meaning of the Administrative Guidelines).

Under the "simplified procedure", U.S. Holders may claim the immediate application of withholding tax at the rate of 15% on the dividends to be received by them, provided that:

(i) they furnish to the U.S. financial institution managing their securities account a certificate of residence conforming with form No. 5000 FR. The immediate application of the 15% withholding tax will be available only if the certificate of residence is sent to the U.S. financial institution managing their securities account no later than the dividend payment date. Furthermore, each financial institution managing the U.S. Holders' securities account must also send to the French paying agent the figure of the total amount of dividends to be received which are eligible to the reduced withholding tax rate before the dividend payment date; and

(ii) the U.S. financial institution managing the U.S. Holder's securities account provides the French paying agent with a list of the eligible U.S. Holders and other pieces of information set forth in the Administrative Guidelines. Furthermore, the financial institution managing the U.S. Holders' securities account should certify that the U.S. Holder is, to the best of its knowledge, a United States resident within the meaning of the Treaty. These documents must be sent to the French paying agent after the dividend payment date and within a time frame that will allow the French paying agent to file them no later than the end of the third month computed as from the end of the month of the dividend payment date.

Where the U.S. Holder's identity and tax residence are known by the French paying agent, the latter may release such U.S. Holder from furnishing to (i) the financial institution managing its securities account, or (ii) as the case may be, the U.S. Internal Revenue Service ("IRS"), the abovementioned certificate of residence, and apply the 15% withholding tax rate to dividends it pays to such U.S. Holder.

For a U.S. Holder that is not entitled to the “simplified procedure” and whose identity and tax residence are not known by the paying agent at the time of the payment, the French withholding tax at the domestic rate will be levied at the time the dividends are paid. Such U.S. Holder, however, may be entitled to a refund of the withholding tax in excess of the 15% rate under the “standard procedure”, as opposed to the “simplified procedure”, provided that the U.S. Holder furnishes to the French paying agent an application for refund on forms No. 5000 FR and 5001 FR (or any other relevant form to be issued by the French tax authorities) certified by the U.S. financial institution managing the U.S. Holder’s securities account (or, if not, by the competent U.S. tax authorities) before December 31 of the second year following the date of payment of the withholding tax at the domestic rate to the French tax authorities, according to the requirements provided by the Administrative Guidelines.

Copies of forms No. 5000 FR and 5001 FR (or any other relevant form to be issued by the French tax authorities) as well as the form of the certificate of residence and the U.S. financial institution certification, together with instructions, are available from the IRS and the French tax authorities.

These forms, together with instructions, are to be provided by the Depositary to all U.S. Holders of ADRs registered with the Depositary. The Depositary is to use reasonable efforts to follow the procedures established by the French tax authorities for U.S. Holders to benefit from the immediate application of the 15% French withholding tax rate or, as the case may be, to recover the portion in excess over 15% of the French withholding tax initially withheld.

To effect such benefit or recovery, the Depositary shall advise such U.S. Holder to return the relevant forms to it, properly completed and executed. Upon receipt of the relevant forms properly completed and executed by such U.S. Holder, the Depositary shall cause them to be filed with the appropriate French tax authorities, and upon receipt of any resulting remittance, the Depositary shall distribute to the U.S. Holder entitled thereto, as soon as practicable, the proceeds thereof in U.S. dollars.

The identity and address of the French paying agent are available from TotalEnergies.

In addition, subject to certain specific filing obligations, there is no withholding tax on dividend payments made by French companies to:

(i) non-French collective investment funds formed under foreign law and established in a Member State of the European Union or in another State or territory, such as the United States, that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, and which fulfill the two following conditions: (a) the fund raises capital among a number of investors for the purpose of investing in accordance with a defined investment policy, in the interest of its investors, and (b) the fund has characteristics similar to those of collective investment funds organized under French law fulfilling the conditions set forth in Article 119 bis 2, 2 of the French Tax Code and the Administrative Guidelines Bulletin Officiel des Finances Publiques, BOI-RPPM-RCM-30-30-20-70-06/10/2021 (i.e., among others, open-end mutual fund (OPCVM), open-end real estate fund (OPCI) and closed-end investment companies (SICAF)); and

(ii) companies whose effective place of management is, or which have a permanent establishment receiving the dividends, in a Member State of the European Union or in another State or territory that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, such as the United States, that are in a loss-making position and subject, at the time of the distribution, to insolvency proceedings similar to the one set out in Article L. 640-1 of the French Commercial Code (or where there is no such procedure available, in a situation of cessation of payments with recovery being manifestly impossible) and that meet the other conditions set out in Article 119 quinquies of the French Tax Code as specified by the Administrative Guidelines Bulletin Officiel des Finances Publiques, BOI-RPPM-RCM-30-30-20-80-29/06/2022.

Collective investment funds and companies mentioned above are urged to consult their own tax advisors to confirm whether they are eligible to such provisions and under which conditions.

Finally, companies having their seat in a Member State of the European Union or in another Member State of the European Economic Area Agreement or any third country that has concluded with France a tax treaty including an administrative assistance provision to tackle tax evasion and avoidance and which is not a NCCT, such as the United States, and being in a tax loss position might, provided that the conditions set forth in Article 235 *quater* of the French Tax Code are met, benefit from a temporary reimbursement of the withholding tax applicable on dividend payments, the corresponding amount having to be refunded to the French treasury, in particular, at the time they become in a profitable tax position.

## U.S. taxation

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, the gross amount of any dividend that a U.S. Holder must include in gross income equals the amount paid by TotalEnergies (i.e., the net distribution received plus any tax withheld therefrom) from its current or accumulated earnings and profits (as determined for U.S. federal income tax purposes). Dividends will not be eligible for the dividends-received deduction allowed to a U.S. corporation under IRC section 243. Distributions, if any, in excess of such current and accumulated earnings and profits (as determined for U.S. federal income tax purposes) will constitute a non-taxable return of capital to a U.S. Holder and will be applied against and reduce such U.S. Holder’s tax basis in such shares or ADSs, but not below zero. To the extent that such distributions are in excess of such basis, the distributions will constitute capital gain. Because TotalEnergies does not currently maintain calculations of earnings and profits for U.S. federal income tax purposes, a U.S. Holder of shares or ADSs of TotalEnergies should expect to treat the entire amount of distributions paid with respect to the shares or ADSs as dividends.

Dividends paid to a non-corporate U.S. Holder that constitute “qualified dividend income” will be taxable to the holder at the preferential rates applicable to long-term capital gains provided (1) TotalEnergies is neither a passive foreign investment company nor treated as such with respect to the U.S. Holder for the taxable year in which the dividend was paid and the preceding taxable year and (2) certain holding period requirements are met. TotalEnergies believes that dividends paid by TotalEnergies with respect to its shares or ADSs will be qualified dividend income. The dividend is taxable to the U.S. Holder when the holder, in the case of shares, or the Depositary, in the case of ADSs, receives the dividend, actually or constructively.

The amount of any dividend distribution includible in the income of a U.S. Holder equals the U.S. dollar value of the euro payment made, determined at the spot euro/dollar exchange rate on the date the dividend distribution is includible in the U.S. Holder’s income, regardless of whether the payment is in fact converted into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in the U.S. Holder’s income to the date the payment is converted into U.S. dollars will generally be treated as ordinary income or loss and, for foreign tax credit limitation purposes, from sources within the United States and will not be eligible for the special tax rate applicable to qualified dividend income. The U.S. federal income tax rules governing the availability and computation of foreign tax credits are complex. U.S. Holders should consult their own tax advisors concerning the implications of these rules in light of their particular circumstances.

Subject to certain conditions and limitations, U.S. Holders may elect to claim a credit against their U.S. federal income tax liability for the net amount of French taxes withheld in accordance with the Treaty and paid over to the French tax authorities. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. In addition, special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the preferential tax rates. To the extent a refund of the tax withheld is available to a U.S. Holder under French law or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit against such holder’s U.S. federal income tax liability. For this purpose, dividends distributed by TotalEnergies will generally constitute “passive income” for purposes of computing the foreign tax credit allowable to the U.S. Holder.

If a U.S. Holder has the option to receive a distribution in shares (or ADSs) instead of cash, the distribution of shares (or ADSs) will be taxable as if the holder had received an amount equal to the fair market value of the distributed shares (or ADSs), and such holder's tax basis in the distributed shares (or ADSs) will be equal to such amount.

### 10.5.3 Taxation of disposition of shares

A U.S. Holder will not be subject to French tax on any capital gain from the sale or exchange of the shares or ADSs or redemption of the underlying shares that the ADSs represent.

Pursuant to Article 235 ter ZD of the French tax code, a financial transaction tax applies, under certain conditions, to the acquisition of shares of publicly traded companies registered in France having a market capitalization over €1 billion on December 1 of the year preceding the acquisition. A list of the companies within the scope of the financial transaction tax for 2022 is published in the Administrative guidelines Bulletin Officiel des Finances Publiques, BOI-ANNX-000467-29/12/2021. TotalEnergies is included in this list, although it cannot be excluded that this list might be amended in the future. The tax also applies to the acquisition of ADRs evidencing ADSs. The financial transaction tax is due at a rate of 0.3% on the price paid to acquire the shares. The person or entity liable for the tax is generally the provider of investment services defined in Article L. 321-1 of the French Monetary and Financial Code (prestataire de services d'investissement). Investment service providers providing equivalent services outside France are subject to the tax under the same terms and conditions. Taxable transactions are broadly construed but several exceptions may apply. In general, non-income taxes, such as this financial transaction tax, paid by a U.S. Holder are not eligible for a foreign tax credit for U.S. federal income tax purposes. U.S. Holders should consult their own tax advisors as to the tax consequences and creditability of such financial transaction tax.

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, a U.S. Holder will generally recognize capital gain or loss upon the sale or other disposition of shares or ADSs equal to the difference between the U.S. dollar value of the amount realized on the sale or other disposition and the holder's tax basis, determined in U.S. dollars, in the shares or ADSs. The gain or loss will generally be U.S. source gain or loss and will be long-term capital gain or loss if the U.S. Holder's holding period of the shares or ADSs is more than one year at the time of the disposition. Long-term capital gain of a non-corporate U.S. Holder is generally taxed at preferential rates if specified minimum holding periods are met. The deductibility of capital losses is subject to limitation.

### 10.5.4 Passive foreign investment company status

TotalEnergies believes that the shares and ADSs are not treated as stock of a passive foreign investment company (PFIC) for U.S. federal income tax purposes, and TotalEnergies does not expect that it will be treated as a PFIC in the current or future taxable years. This conclusion is a factual determination that is made annually and thus is subject to uncertainty and change. In general, a non-U.S. corporation will be a PFIC for any taxable year if either (i) at least 75% of its gross income for such year is passive income or (ii) at least 50% of the value of its assets (based on an average of the quarterly values of the assets) during such year is attributable to assets that produce passive income or are held for the production of passive income. If TotalEnergies were treated as a PFIC with respect to a U.S. Holder for any taxable year, the U.S. Holder generally would suffer adverse tax consequences, that may include having gains realized on the disposition of the shares or ADSs treated as ordinary income rather than capital gain and being subject to punitive interest charges on the receipt of certain distributions and on the proceeds of the sale or other disposition of the shares or ADSs. U.S. Holders would also be subject to information reporting requirements on an annual basis. U.S. Holders should consult their tax advisors about the potential application of the PFIC rules to shares or ADSs.

### 10.5.5 French estate and gift taxes

In general, a transfer of shares or ADSs by gift or by reason of the death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of Article 8 of the Convention between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978, as amended, unless the donor or the transferor is domiciled in France at the time of the gift, or at the time of the transferor's death, or if the shares or ADSs were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

### 10.5.6 U.S. state and local taxes

In addition to U.S. federal income tax, U.S. Holders of shares or ADSs may be subject to U.S. state and local taxes with respect to their shares or ADSs. U.S. Holders should consult their own tax advisors.

## 10.6 Dividends and paying agents

The information set forth in points 6.2.2 and 6.2.3 of chapter 6 of the Universal Registration Document 2022 (starting on page 388) is incorporated herein by reference.

## 10.7 Statements by experts

Not applicable.

## 10.8 Documents on display

TotalEnergies files annual, periodic and other reports and information with the Securities and Exchange Commission. All of its SEC filings made after December 31, 2001 are available to the public at the SEC website at www.sec.gov and from certain commercial document retrieval services.

# ITEM 10J. ANNUAL REPORT TO SECURITY HOLDERS

Not applicable.

# ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Please refer to Notes 15.3 ("Financial risks management") (starting on page F-82) and 16.2 ("Oil, Gas and Power markets related risks management") (on page F-90) to the Consolidated Financial Statements, for a qualitative and quantitative discussion of TotalEnergies' exposure to market risks. Please also refer to Notes 15.2 ("Fair value of financial instruments (excluding commodity contracts)") (starting on page F-77) and 16 ("Financial instruments related to commodity contracts") (starting on page F-87) to the Consolidated Financial Statements, for details of the different derivatives owned by TotalEnergies in these markets.

As part of its financing and cash management activities, TotalEnergies uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. TotalEnergies may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 15.2 and 16 to the Consolidated Financial Statements.

The financial performance of TotalEnergies is sensitive to a number of factors; the most significant being oil and gas prices, generally expressed in dollars, and exchange rates, in particular that of the dollar versus the euro. Generally, a rise in the price of crude oil has a positive effect on earnings as a result of an increase in revenues from oil and gas production. Conversely, a decline in crude oil prices reduces revenues. The impact of changes in crude oil prices on the activities of the Refining & Chemicals and Marketing & Services segments depends upon the speed at which the prices of finished products adjust to reflect these changes. All of TotalEnergies' activities are, to various degrees, sensitive to fluctuations in the dollar/euro exchange rate.

# ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

## 12.1 American depositary receipts fees and charges

JPMORGAN CHASE BANK, N.A., as depositary for the TotalEnergies ADR program, collects its fees for delivery and surrender of ADRs directly from investors depositing shares or surrendering ADRs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid. A copy of the depositary agreement is attached as Exhibit (a) to the registration statement on Form F 6 (Reg. No. 333 199737) filed with the SEC on October 31, 2014 and amended on July 30, 2021.

| **Investors must pay:** | **For:** |
|---|---|
| \$5.00 (or less) per 100 ADSs (or portion of 100 ADSs) | - Issuance of ADRs, including issuances resulting from a distribution of shares or rights or other property, stocks splits or mergers<br>- Cancellation of ADRs for the purpose of withdrawal, including if the deposit agreement terminates |
| A fee equivalent to the fee that would be payable if securities distributed to the investor had been shares and the shares had been deposited for issuance of ADSs | - Distribution, by the depositary, of deposited securities to ADS registered holders |
| Registration or transfer fees | - Transfer and registration of shares on TotalEnergies' share register to or from the name of the depositary or its agent when the investor deposits or withdraws shares |
| Expenses of the depositary | - Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)<br>- Converting foreign currency to U.S. dollars |
| Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes | - As necessary |
| Any charges incurred by the depositary or its agents for servicing the deposited securities | - As necessary |

**Fees paid to TotalEnergies SE by the depositary**

In consideration for acting as depositary for the TotalEnergies ADR program, JPMORGAN CHASE BANK, N.A. has agreed to share, on an annual basis, with TotalEnergies SE portions of certain fees collected, less ADS program expenses paid by the depositary. For example, these expenses include transfer agency fees, custody fees, costs and expenses, central securities depository fees, costs and expenses not already charged to the holders of ADSs under the deposit agreement and other reasonable and documented out-of-pocket fees, costs and expenses incurred by the depositary in acting as such for the TotalEnergies ADR program.

In the year ended December 31, 2022, the ADR depositary paid aggregate fees to TotalEnergies SE in an amount of USD \$11.4 million.

For additional information on TotalEnergies shares and the American depositary shares, please refer to Exhibit 2.2 "Description of securities registered under Section 12 of the Exchange Act".

# ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

# ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

# ITEM 15. CONTROLS AND PROCEDURES

## 15.1 Disclosure controls and procedures

An evaluation was carried out under the supervision and with the participation of TotalEnergies' management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness, as of the end of the period covered by this report, of the design and operation of TotalEnergies' disclosure controls and procedures, which are defined as those controls and procedures designed to ensure that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended, is recorded, summarized and reported within specified time periods. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that TotalEnergies SE files under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to management, including themselves, as appropriate to allow timely decisions regarding required disclosure.

## 15.2 Management’s annual report on internal control over financial reporting

TotalEnergies' management is responsible for establishing and maintaining adequate internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, the effectiveness of an internal control system may change over time.

TotalEnergies' management, including the Chief Executive Officer and the Chief Financial Officer, conducted an evaluation of the effectiveness of internal control over financial reporting using the criteria set forth in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on the results of this evaluation, TotalEnergies' management concluded that its internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of internal control over financial reporting as of December 31, 2022, was audited by ERNST & YOUNG Audit and PricewaterhouseCoopers Audit, independent registered public accounting firms, as stated in their report included starting on page F-2 attached hereto.

## 15.3 Changes in internal control over financial reporting

There were no changes in TotalEnergies' internal control over financial reporting that occurred during the period covered by this report that have materially affected, or that were reasonably likely to materially affect, TotalEnergies' internal control over financial reporting.

## 15.4 Internal control and risk management procedures

For additional information, refer to points 3.3 and 3.6 of chapter 3 of the Universal Registration Document 2022 (starting on pages 134 and 143, respectively), incorporated herein by reference.

# ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Mr. Jérôme Contamine and Mrs. Lise Croteau are the Audit Committee financial experts. They are both independent members of the Board of Directors in accordance with the NYSE listing standards applicable to TotalEnergies.

# ITEM 16B. CODE OF ETHICS

At its meeting on October 27, 2016, the Board of Directors adopted a revised code of ethics that applies to its Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and the financial and accounting officers for its principal activities. A copy of this code of ethics is included as an exhibit to this Annual Report. TotalEnergies will promptly disclose to its shareholders, if required by applicable laws or stock exchange requirements, any amendments to or waivers from the code of ethics applicable to its directors or officers by posting such information on our website.

# ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

## 16C.1 Fees for accountants’ services

The information set forth in point 4.4.5.2 of chapter 4 of the Universal Registration Document 2022 (on page 261) is incorporated herein by reference.

## 16C.2 Audit Committee pre-approval policy

The Audit Committee has adopted an Audit and Non-Audit Services Pre-Approval Policy that sets forth the procedures and the conditions pursuant to which services proposed to be performed by the statutory auditors may be pre-approved and that are not prohibited by regulatory or other professional requirements. This policy provides for both pre-approval of certain types of services through the use of an annual budget approved by the Audit Committee for these types of services and special pre-approval of services by the Audit Committee on a case-by-case basis. The Audit Committee reviews on an annual basis the services provided by the statutory auditors. During 2022, no audit-related fees, tax fees or other non-audit fees were approved by the Audit Committee pursuant to the de minimis exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

## 16C.3 Auditor’s term of office

French law provides that the statutory and alternate auditors are appointed for renewable 6 fiscal-year terms. The Shareholders’ Meeting of May 25, 2022 decided to renew the appointment of Ernst & Young as statutory auditors for an additional six-year term. It also decided to appoint PricewaterhouseCoopers Audit as statutory auditors to replace KPMG, which had been the Company's statutory auditors for more than 20 years and could no longer be reappointed in accordance with the rotation rules for statutory auditors, according to the European audit reform. The information set forth in point 4.4.5.1 of chapter 4 of the Universal Registration Document 2022 (on page 260) is incorporated herein by reference.

# ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

TotalEnergies’ Audit Committee consists of five directors, including four directors who meet the independence requirements under Rule 10A-3 of the Securities Exchange Act of 1934, as amended, and one who is exempt under such requirements pursuant to the Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees. The Audit Committee member exempt from the independence requirements under this rule is Mr. Romain Garcia-Ivaldi, appointed as the director representing employees pursuant to Article L.225-27-1 of the French Commercial Code (see “Item 6 — Directors, Senior Management and Employees”). TotalEnergies’ reliance on such exemption does not materially adversely affect the ability of the Audit Committee to act independently.

# ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

| **Period** ***(in 2022)*** | ***Total Number of Shares (or Units) Purchased*** | ***Average Price Paid per Share (or Units) ($)[(i)]*** | ***Total Number of Shares (or Units) Purchased, as part of Publicly Announced Plans or Programs[(ii)]*** | ***Maximum Number of Shares (or Units) that may yet be purchased under the Plans or Programs[(iii)]*** |
|---|---|---|---|---|
| January | 3,198,452 | 51.45 | 3,198,452 | 227,003,991 |
| February | 4,903,642 | 57.68 | 4,903,642 | 249,056,477 |
| March | 14,276,034 | 50.77 | 14,276,034 | 241,590,721 |
| April | 0 | n/a | 0 | 241,591,668 |
| May | 18,009,022 | 53.82 | 18,009,022 | 223,610,895 |
| June | 18,071,386 | 56.05 | 18,071,386 | 206,447,211 |
| July | 0 | n/a | 0 | 206,447,920 |
| August | 21,154,458 | 52.07 | 21,154,458 | 185,400,240 |
| September | 17,763,130 | 50.00 | 17,763,130 | 167,555,347 |
| October | 0 | n/a | 0 | 167,555,347 |
| November | 23,229,168 | 57.75 | 23,229,168 | 143,706,422 |
| December | 19,602,451 | 61.30 | 19,602,451 | 124,725,461 |

(i) Based on the daily European Central Bank exchange rate of each transaction.

(ii) The Annual Shareholders’ Meeting of May 25, 2022, canceled and superseded the previous resolution (for any unused portion) from the Annual Shareholders’ Meeting of May 28, 2021, authorizing the Board of Directors to trade in the Company’s own shares on the market for a period of 18 months within the framework of the stock purchase program. The maximum number of shares that may be purchased by virtue of this authorization or under the previous authorization may not exceed 10% of the total number of shares constituting the share capital, this amount being periodically adjusted to take into account operations modifying the share capital after each shareholders’ meeting. Under no circumstances may the total number of shares held by the Company, either directly or indirectly through its subsidiaries, exceed 10% of the share capital. This authorization will be renewed subject to the approval of the Annual Shareholders’ Meeting of May 26, 2023.

(iii) Based on 10% of the Company’s share capital, and after deducting the shares held by the Company for cancellation and the shares held by the Company to cover the share subscription or purchase option plans and the performance share plans for Company employees.

# ITEM 16F. CHANGE IN REGISTRANT’S CERTIFYING ACCOUNTANT

The terms of office of KPMG SA, joint principal Statutory Auditor of the Company since 1996, expired at the end of the Shareholders' Meeting of May 25, 2022. KPMG SA's terms of office could not be legally extended as they had reached the maximum legal duration following the transposition of the European audit reform into French law.

Consequently, the Board of Directors decided to propose to the Shareholders' Meeting to appoint PricewaterhouseCoopers Audit as new joint Principal Statutory Auditor.

The Shareholders' Meeting of May 25, 2022 resolved to appoint PricewaterhouseCoopers Audit as new joint principal Statutory Auditor to replace KPMG SA. The selection of the Statutory Auditors to be appointed by the Shareholders' Meeting was overseen by the Audit Committee, which issued a recommendation to the Board of Directors.

The report of Ernst & Young Audit and KPMG SA on the consolidated financial statements for each of the years ended December 31, 2021 and 2020 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles. During each of the years ended December 31, 2021 and 2020 and any subsequent interim period prior to the Shareholders’ Meeting of May 25, 2022:

- there were no "disagreements" (as that term is described in Item 16F(a)(1)(iv) of the Instructions to Form 20-F and the instructions to Item 16F) between TotalEnergies and KPMG SA on any matters of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreement(s), if not resolved to KPMG SA's satisfaction, would have caused KPMG SA to make reference to the subject matter of the disagreement(s) in connection with its report; and
- there were no "reportable events" (as that term is defined in Item 16F(a)(1)(v) of the Instructions to Form 20-F).

During the Company's two most recent fiscal years, and any subsequent interim period prior to engaging PricewaterhouseCoopers Audit, neither the Company, nor anyone on its behalf, has consulted PricewaterhouseCoopers Audit regarding:

- either the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the registrant's financial statements; and neither a written report was provided to the Company, nor oral advice was provided, that PricewaterhouseCoopers Audit concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing or financial reporting issue;

- or any matter that was either the subject of a disagreement (as described in Item 16F(a)(1)(iv) of the Instructions to Form 20-F and the related instructions to this Item) or a reportable event (as defined in Item 16F(a)(1)(v) of the Instructions to Form 20-F).

The Company has furnished KPMG SA with a copy of the statements made in this Item 16F and requested that KPMG SA furnish a letter addressed to the SEC stating whether or not it agrees with the above statements and, if not, stating the respects in which it does not agree.

A copy of KPMG SA's letter, dated March 24, 2023, is filed as Exhibit 15.4 to this Form 20-F.

The terms of office of all the Statutory Auditors will expire following the Ordinary Shareholders' Meeting convened to approve the financial statements for the fiscal year ended December 31, 2027.

# ITEM 16G. CORPORATE GOVERNANCE

This section presents a summary of significant differences between French corporate governance practices and the New York Stock Exchange's (“NYSE”) corporate governance standards, as required by section 303A.11 of the NYSE Listed Company Manual.

## 16G.1 Overview

The following paragraphs provide a brief, general summary of significant ways in which our corporate governance practices differ from those required by the listing standards of the NYSE for U.S. companies that have common stock listed on the NYSE. While our management believes that our corporate governance practices are similar in many respects to those of U.S. domestic NYSE listed companies and provide investors with protections that are comparable in many respects to those established by the NYSE Listed Company Manual, certain significant differences are described below.

The principal sources of corporate governance standards in France are the French Commercial Code (*Code de commerce*), the French Financial and Monetary Code (*Code monétaire et financier*) and the regulations and recommendations provided by the French Financial Markets Authority (*Autorité des marchés financiers, AMF*), as well as a number of general recommendations and guidelines on corporate governance, most notably the Corporate Governance Code of Listed Corporations (the “AFEP-MEDEF Code”) published by the two main French business confederations, the *Association Française des Entreprises Privées* (AFEP) and the *Mouvement des Entreprises de France* (MEDEF), the latest version of which was published in December 2022.

The AFEP-MEDEF Code includes, among other things, recommendations relating to the role and operation of the board of directors (creation, composition and evaluation of the board of directors and the audit, compensation and nominations committees) and the independence criteria for board members. Articles L. 820-1 et seq. of the French Commercial Code authorizes statutory auditors to provide certain non-audit services if in compliance with provisions of the French Commercial Code, the European legislation and the Code of ethics of the auditors. It also defines certain criteria for the independence of statutory auditors. In France, the independence of statutory auditors is also monitored by an independent body, the High Council for statutory auditors (*Haut Conseil du Commissariat aux Comptes*).

For an overview of certain of our corporate governance policies, refer to points 4.1 and 4.2 of chapter 4 of the Universal Registration Document 2022 (starting on page 178), incorporated herein by reference.

## 16G.2 Composition of Board of Directors; Independence

The NYSE listing standards provide that the board of directors of a U.S.-listed company must include a majority of independent directors and that the audit committee, the nominating/corporate governance committee and the compensation committee must be composed entirely of independent directors. A director qualifies as independent only if the board affirmatively determines that the director has no material relationship with the company, either directly or as a partner, shareholder or officer of an organization that has a relationship with the company. Furthermore, as discussed below, the listing standards require additional procedures in regards to the independence of directors who sit on the audit committee and the compensation committee. In addition, the listing standards enumerate a number of relationships that preclude independence.

French law does not contain any independence requirement for the members of the board of directors of a French company, except for the audit committee, as described below. The AFEP-MEDEF Code recommends, however, that (i) the independent directors should account for half of the members of the board of directors of widely-held corporations without controlling shareholders, and (ii) independent directors should account for at least one-third of board members in controlled companies. Members of the board representing employees and employee shareholders are not taken into account in calculating these percentages. The AFEP-MEDEF Code states that a director is independent when “he or she has no relationship of any kind whatsoever with the corporation, its group or the management that may interfere with his or her freedom of judgment. Accordingly, an independent director is understood to be any non-executive director of the corporation or the group who has no particular bonds of interest (significant shareholder, employee, other) with them”. The AFEP-MEDEF Code also enumerates specific criteria for determining independence, which are on the whole consistent with the goals of the NYSE listing standards, although the specific tests under the two standards may vary on some points.

As noted in the AFEP-MEDEF Code, “qualification as an independent director should be discussed by the appointments committee […] and decided on by the board on the occasion of the appointment of a director, and annually for all directors”.

For an overview of TotalEnergies SE’s Board of Directors’ assessment of the independence of its members, including a description of the Board of Directors’ independence criteria, refer to point 4.1.1.4 of chapter 4 of the Universal Registration Document 2022 (starting on page 196), incorporated herein by reference.

## 16G.3 Representation of women on corporate boards

The French Commercial Code provides for legally binding quotas to balance gender representation on boards of directors of French listed companies, requiring that each gender represents at least 40%. Directors representing the employees and directors representing the employee shareholders are not taken into account in calculating this percentage. When the board of directors consists of a maximum of eight members, the difference between the number of directors of each gender should not be higher than two. Any appointment of a director made in violation of these rules will be declared null and void and payment of the directors’ compensation will be suspended until the board composition is compliant with the required quota (the suspension of the directors’ compensation will also be disclosed in the management report). However, if a director whose appointment is null and void takes part in decisions of the board of directors, such decisions are not declared automatically null and void by virtue thereof. As of March 15, 2023, TotalEnergies SE’s Board of Directors consisted of eight male members and six female members. Excluding the directors representing employees and the director representing employee shareholders in accordance with French law, the proportion of women on the Board of Directors was 45.5%.

## 16G.4 Board committees

### 16G.4.1 Overview

The NYSE listing standards require that a U.S.-listed company have an audit committee, a nominating/corporate governance committee and a compensation committee. Each of these committees must consist solely of independent directors and must have a written charter that addresses certain matters specified in the listing standards. Furthermore, the listing standards require that, in addition to the independence criteria referenced above under "Composition of Board of Directors; Independence", certain enumerated factors be taken into consideration when making a determination on the independence of directors on the compensation committee or when engaging advisors to the compensation committee.

With the exception of an audit committee, as described below, French law currently requires neither the establishment of board committees nor the adoption of written charters.

The AFEP-MEDEF Code recommends, however, that the board of directors sets up, in addition to the audit committee required by French law, a nominations committee, a compensation committee and a corporate social responsibility (CSR) committee. The AFEP-MEDEF Code also recommends that at least two-thirds of the audit committee members and a majority of the members of each of the compensation committee and the nominations committee be independent directors. It is recommended that the chairman of the compensation committee be independent and that one of its members be an employee director. None of those three committees should include any Executive Officer[1].

TotalEnergies SE has established an Audit Committee, a Governance and Ethics Committee, a Compensation Committee and a Strategy & CSR Committee. As of March 15, 2023, the composition of these Committees was as follows:

- the Audit Committee had five members, 75% of whom have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing employees are not taken into account when determining the independence rate);
- the Governance and Ethics Committee had five members, 80% of whom have been deemed independent by the Board of Directors;
- the Compensation Committee had four members, 100% of whom have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing the employee shareholders and directors representing employees are not taken into account when determining the independence rate); and
- the Strategy & CSR Committee had six members, 60% of the members of this Committee have been deemed independent by the Board of Directors (according to point 10.3 of the AFEP-MEDEF Code, directors representing the employee shareholders and directors representing employees are not taken into account when determining the independence rate).

For a description of the independence assessment of each member of the Board of Directors, see point 4.1.1.4 of chapter 4 of the Universal Registration Document 2022 (starting on page 196), incorporated herein by reference. For a description of the scope of each Committee's activity, see point 4.1.2.3 of chapter 4 of the Universal Registration Document 2022 (starting on page 209), incorporated herein by reference.

The NYSE listing standards also require that the audit, nominating/corporate governance and compensation committees of a U.S.-listed company be vested with decision-making powers on certain matters. Under French law, however, those committees are advisory in nature and have no decision-making authority. Board committees are responsible for examining matters within the scope of their charter and making recommendations thereon to the board of directors. Under French law, the board of directors has the final decision-making authority.

### 16G.4.2 Audit Committee

The NYSE listing standards contain detailed requirements for the audit committees of U.S.-listed companies. Some, but not all, of these requirements also apply to non U.S.-listed companies, such as TotalEnergies SE. French law and the AFEP-MEDEF Code share the NYSE listing standards' goal of establishing a system for overseeing the company's accounting process that is independent from management and that ensures auditor independence. As a result, they address similar topics, with some overlap.

Article L. 823-19 of the French Commercial Code requires the board of directors of companies listed in France to establish an audit committee, at least one member of which must be an independent director and must be competent in finance, accounting or statutory audit procedures. The AFEP-MEDEF Code provides that at least two-thirds of the directors on the audit committee be independent and that the audit committee should not include any Executive Officer. Under NYSE rules, in the absence of an applicable exemption, audit committees are required to satisfy the independence requirements under Rule 10A-3 of the Exchange Act. TotalEnergies SE's Audit Committee consists of five directors, four of whom meet independence requirements under Rule 10A-3 and one (a director representing employees) who is relying on Rule 10A-3(b)(1)(iv)(C) exemption for non-executive officer employees (see "Item 6 – Directors, Senior Management and Employees").

The duties of TotalEnergies SE's Audit Committee, in line with French law and the AFEP-MEDEF Code, are described in point 4.1.2.3 of chapter 4 of the Universal Registration Document 2022 (starting on page 209), incorporated herein by reference. The Audit Committee regularly reports to the Board of Directors on the fulfillment of its tasks, the results of the financial statements certification process and the contribution of such process to guaranteeing the financial information's integrity.

One structural difference between the legal status of the audit committee of a U.S.-listed company and that of a French-listed company concerns the degree of the committee's involvement in managing the relationship between the company and the auditors. French law requires French companies that publish consolidated financial statements, such as TotalEnergies SE, to have two co-statutory auditors, while the NYSE listing standards require that the audit committee of a U.S.-listed have direct responsibility for the appointment, compensation, retention and oversight of the work of the auditor. French law provides that the election of the co-statutory auditors is the sole responsibility of the shareholders duly convened at a shareholders' meeting. In making their decision, the shareholders may rely on proposals submitted to them by the board of directors based on recommendations from the audit committee. The shareholders elect the statutory auditors for an audit period of six financial years. The statutory auditors may only be revoked by a court order and only on grounds of professional negligence or incapacity to perform their mission.

## 16G.5 Meetings of non-management directors

The NYSE listing standards require that the non-management directors of a U.S.-listed company meet at regularly scheduled executive sessions without management. French law does not contain such a requirement. The AFEP-MEDEF Code recommends, however, that a meeting not attended by the Executive Officers be organized at least once a year.

Since December 16, 2015, the rules of procedure of the board of directors provide that, with the agreement of the Governance and Ethics Committee, the Lead Independent Director may hold meetings of the directors who do not hold executive or salaried positions on the Board of Directors. He or she reports to the Board of Directors on the conclusions of such meetings.

[1] As defined by the AFEP-MEDEF Code, Executive Officers "include the Chairman and Chief Executive Officer, the Deputy chief executive officer(s) of public limited companies with a Board of Directors, the Chairman and members of the Management Board in public limited companies having a Management Board and Supervisory Board and the statutory managers of partnerships limited by shares".

In December 2022, the Lead Independent Director held a meeting of the independent directors. She subsequently presented a summary of this meeting to the Board of Directors.

Thus, the Board of Directors' practice is in line with the recommendation made in the AFEP-MEDEF Code.

## 16G.6 Shareholder approval of compensation

Pursuant to the provisions of the French Commercial Code, as amended, the compensation of the chairman of the board of directors, the members of the board of directors, the chief executive officer and, as the case may be, the deputy chief executive officer(s) in French listed companies shall each year be submitted to the approval of their shareholders. Articles L. 22-10-8 and L. 22-10-34 of the French Commercial Code (formerly Articles L. 225-37-2 and L. 225-100 as amended by the ordinance n°2019-1234 supplemented by the decree n° 2019-1235 each dated November 27, 2019) provide, respectively, for an ex ante vote and two ex post votes:

- ex ante vote: the shareholders shall each year approve the compensation policy of the above-mentioned directors and officers for the current fiscal year. Such policy shall describe all components of fixed and variable compensation and shall explain the decision process followed for its determination, review and implementation. In the event a resolution is rejected by the shareholders, the preceding already-approved compensation policy for the concerned director(s) and officer(s) will be applicable; in the absence of a preceding already-approved compensation policy, the compensation is determined in line with compensation granted the preceding year if any, or in line with existing practices in the company; and
- two ex post votes, the shareholders shall each year approve:
  - the fixed, variable and extraordinary components of the aggregate compensation and benefit of any kinds due or attributable to the chief executive officer and the chairman of the board for the preceding fiscal year. In the event a resolution is rejected by the shareholders, the variable and extraordinary components of the compensation will not be paid to the chief executive officer and the chairman of the board;
  - the total annual compensation of all the above-mentioned directors and officers. In the event a resolution is rejected by the shareholders, such compensation will not be paid to the directors and officers.

## 16G.7 Disclosure

The NYSE listing standards require US-listed companies to adopt, and post on their websites, a set of corporate governance guidelines. The guidelines must address, among other things: director qualification standards, director responsibilities, director access to management and independent advisers, director compensation, director orientation and continuing education, management succession and an annual performance evaluation of the board. In addition, the chief executive officer of a U.S.-listed company must certify to the NYSE annually that he or she is not aware of any violations by the company of the NYSE's corporate governance listing standards.

French law requires neither the adoption of such guidelines nor the provision of such certification. The AFEP-MEDEF Code recommends, however, that the board of directors of a French-listed company review its operation annually and perform a formal evaluation at least once every three years, under the leadership of the appointments or nominations committee or an independent director, assisted by an external consultant. TotalEnergies SE's Board of Directors' most recent formal self-evaluation took place in late 2022. The AFEP-MEDEF Code also recommends that shareholders be informed of these evaluations each year in the annual report. In addition, Article L. 225-37 of the French Commercial Code requires the board of directors to present to the shareholders a corporate governance report appended to the management report, notably describing the composition of the board and the balanced representation of men and women on the board, the preparation and organization of the board's work, the offices and positions of each TotalEnergies SE executive officer and the compensation attributable and received by each such officer as well as the compensation attributable and received by the members of the board of directors. The AFEP-MEDEF Code also includes ethical rules concerning which directors are expected to comply.

## 16G.8 Code of business conduct and ethics

The NYSE listing standards require each U.S.-listed company to adopt, and post on its website, a code of business conduct and ethics for its directors, officers and employees. Under Article 17 of Law n° 2016/1691 of December 9, 2016, top management (such as the chairman of the board or chief executive officer) of large French companies is required to adopt a code of conduct proscribing the different types of behavior being likely to characterize acts of corruption, bribery or influence peddling. This code must be included in the rules of procedure of the company and be submitted to employee representatives. Under the SEC's rules and regulations, all companies required to submit periodic reports to the SEC, including TotalEnergies SE, must disclose in their annual reports whether they have adopted a code of ethics for their principal executive officers and senior financial officers. In addition, they must file a copy of the code with the SEC, post the text of the code on their website or undertake to provide a copy upon request to any person without charge. There is significant, though not complete, overlap between the code of ethics required by the NYSE listing standards and the code of ethics for senior financial officers required by the SEC's rules. For a description of the code of ethics adopted by TotalEnergies, refer to point 3.3.2 of chapter 3 of the Universal Registration Document 2022 (starting on page 134), incorporated herein by reference, and "Item 16B. Code of ethics".

# ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

# ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

# ITEM 17. FINANCIAL STATEMENTS

See "Item 18. Financial Statements".

# ITEM 18. FINANCIAL STATEMENTS

The Consolidated Financial Statements and Notes thereto are included in pages F-9 et seq. attached hereto.

The reports of the statutory auditors, ERNST & YOUNG Audit and PricewaterhouseCoopers Audit, are included in pages F-1 to F-8 attached hereto.

# ITEM 19. EXHIBITS

The following documents are filed as part of this Annual Report:

| | |
|---|---|
| 1 | Articles of Associations (*Statuts*) of TotalEnergies SE (as amended through February 7, 2023). |
| 2.1 | The total amount of long-term debt securities authorized under any instrument does not exceed 10% of the total assets of TotalEnergies SE and its subsidiaries on a consolidated basis. We hereby agree to furnish to the SEC, upon its request, a copy of any instrument defining the rights of holders of long-term debt of TotalEnergies SE or of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed. |
| 2.2 | Description of TotalEnergies securities registered under section 12 of the Exchange Act. |
| 8 | List of Subsidiaries (see Note 18 to the Consolidated Financial Statements, starting on page F-91). |
| 11 | Code of Ethics (incorporated by reference to exhibit 11 of TotalEnergies' annual report on Form 20-F for the year ended December 31, 2016, filed on March 17, 2017). |
| 12.1 | Certification of Chief Executive Officer. |
| 12.2 | Certification of Chief Financial Officer. |
| 13.1 | Certification of Chief Executive Officer. |
| 13.2 | Certification of Chief Financial Officer. |
| 15.1 | Excerpt of the pages and sections of the Universal Registration Document 2022 incorporated herein by reference. |
| 15.2 | Consent of ERNST & YOUNG Audit and of PricewaterhouseCoopers Audit. |
| 15.3 | Consent of ERNST & YOUNG Audit and of KPMG SA. |
| 15.4 | KPMG SA's letter regarding statements of Item 16 F. |
| 101.INS | Inline XBRL Instance Document. |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document. |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document. |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document. |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document. |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document. |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and included in Exhibit 101). |

# SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

TotalEnergies SE

By: /s/ PATRICK POUYANNÉ

| | |
|---|---|
| Name: | Patrick Pouyanné |
| Title: | Chairman and Chief Executive Officer |

Date: March 24, 2023

**PricewaterhouseCoopers Audit**

63, rue de Villiers
92208 Neuilly-sur-Seine
S.A.S. au capital de € 2 510 460
672 006 483 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

**ERNST & YOUNG Audit**

Tour First
TSA 14444
92037 Paris-La Défense cedex
S.A.S. à capital variable
344 366 315 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

**TotalEnergies SE**

**Report of Independent Registered Public Accounting Firms on the Internal Control Over Financial Reporting**

To the Shareholders and Board of Directors,

***Opinion on Internal Control Over Financial Reporting***

We have audited TotalEnergies SE and subsidiaries' ("the Company") internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year ended December 31, 2022 and the related notes (collectively, "the consolidated financial statements"), and our report dated March 21, 2023 expressed an unqualified opinion on those consolidated financial statements.

***Basis for Opinion***

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are public accounting firms registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

***Definition and Limitations of Internal Control Over Financial Reporting***

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Neuilly-sur-Seine and Paris-La Défense, France, March 21, 2023

/s/ PricewaterhouseCoopers Audit

/s/ ERNST & YOUNG Audit

**PricewaterhouseCoopers Audit**

63, rue de Villiers
92208 Neuilly-sur-Seine cedex
France
SAS au capital de € 2 510 460
672 006 483 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

**ERNST & YOUNG Audit**

Tour First
TSA 14444
92037 Paris-La Défense cedex
France
SAS à capital variable
344 366 315 R.C.S Nanterre

Commissaire aux comptes
Membre de la compagnie
régionale de Versailles et du Centre

TotalEnergies SE

**Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements**

To the Shareholders and Board of Directors,

*Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated balance sheets of TotalEnergies SE and subsidiaries ("the Company") as of December 31, 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for the year then ended, and the related notes (collectively, "the consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, and the results of its operations and its cash flows for the year then ended, in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Group's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework), and our report dated March 21, 2023 expressed an unqualified opinion on the effectiveness of the Group's internal control over financial reporting.

*Basis for Opinion*

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are public accounting firms registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

***Critical Audit Matters***

The Critical Audit Matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the Audit Committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of Critical Audit Matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the Critical Audit Matters below, providing separate opinions on the Critical Audit Matters or on the accounts or disclosures to which they relate.

**Evaluation of the impairment of non-current assets used in exploration and production activities in the Exploration and Production (E&P) and the Integrated Gas, Renewables and Power (iGRP) segments**

*Description of the Matter*

As stated in Notes 7.1 "Intangible assets", 7.2 "Property, plant and equipment" and 3 to the consolidated financial statements as of December 31, 2022, the non-current assets used in exploration and production activities in the E&P and iGRP segments are mainly comprised of proved mineral interests (7,937 million US dollars in net value), unproved mineral interests (13,016 million US dollars in net value), proved properties (63,508 million US dollars in net value), work in progress of exploration and production activities (19,606 million US dollars in net value) and a portion of the balance of investments and loans in equity affiliates (23,007 million US dollars in net value). The methods for testing impairments of these assets are described in Notes 7.1, 7.2 and 3.D "Asset impairment".

The recoverable amount of these assets is tested as soon as a triggering event is identified, these tests being carried out at the level of the related cash generating units (CGUs), that include the hydrocarbon sites and industrial assets involved in the production, processing and extraction of hydrocarbons. The value in use of a CGU is determined on the basis of discounted future cash flows, within the framework of the economic assumptions and operating conditions expected by the Company's senior management. The key valuation assumptions considered by the Company in assessing value in use include future hydrocarbon price, future carbon price, future operating costs, estimates of hydrocarbon reserves and the after-tax discount rate.

As described in the notes "Major judgments and accounting estimates" and 3.D to the consolidated financial statements, the Company retains an oil price trajectory that converges from 2030 to the price retained in 2050 by the International Energy Agency's (IEA) NZE scenario, i.e. 24,5$$_{2022}$/b. The prices retained for gas stabilize in 2027 and until 2040 at lower levels than the current prices and converge towards the IEA's NZE scenario prices in 2050. In addition, TotalEnergies includes from 2023, a minimum CO2 cost of $100/t or the applicable price in a given country if higher. Beyond 2028, the CO2 price is inflated by 2% per year.

Finally, as described in notes 7.1 and 7.2 to the consolidated financial statements, exploration expenditures capitalized in unproved mineral interests or in work in progress are subject to specific impairment tests to ensure that the exploratory wells have revealed sufficient reserves, and sufficient progress in the assessment of the reserves and the economic and operating viability of the project has been made.

Net impairments of non-current assets of exploration and production activities in the E&P and iGRP segments for 2022 amounted to 714 million US dollars in operating income and 15,622 million US dollars in net income, including 14,669 million US dollars related to the Company's assets in Russia.

As described in the note "Major judgments and accounting estimates - Russian-Ukrainian conflict" to the consolidated financial statements, the evolving context of international sanctions and related uncertainties has led the Company to identify triggering events with respect to its Russian assets. All the related assets were fully impaired as at December 31, 2022 or sold during the year, with the exception of the shares held in Yamal LNG:

- Novatek: as described in note 8.1 “Equity affiliates: investments and loans”, this stake is recognized in “Other investments” as at December 31, 2022, at zero fair value given the very significant uncertainties.
- Arctic LNG 2: capital employed is valued at zero as of December 31, 2022 considering the risks on the project completion.
- Yamal LNG: an impairment test of the investment was carried out as of December 31, 2022 which confirmed the absence of impairment to be recorded. Depending on the evolution of the conflict, activities may be affected in the future.

Depending on the evolution of the conflict, activities may be affected in the future.

In order to assess the resilience of the portfolio to different parameters, sensitivities to several assumptions were carried out by management, including a 10% and 20% decrease in the hydrocarbon's price applied over the assets life as well as a carbon price of $200/t, inflated by 2% per year from 2028.

We considered the evaluation of the impairment of non-current assets used in exploration and production activities in the E&P and iGRP segments to be a critical audit matter as evaluating the Company's assumptions described above involves a high degree of judgment, notably the consequences of the Russian-Ukrainian conflict or projections related to future events.

*How We Addressed the Matter in Our Audit*

We obtained an understanding, evaluated the design, and tested the operating effectiveness of certain controls implemented by the Company to address the risk of material misstatement relating to the evaluation of the impairment of non-current assets used in exploration and production activities in the E&P and iGRP segments. This included testing control activities regarding the identification of a triggering event and the determination of key management assumptions underlying the recoverable value of the assets tested.

We assessed whether there was a triggering event for these assets, such as the Russian-Ukrainian conflict, a significant decline in production, the enactment of a new tax law, the impact of new assumptions on hydrocarbon prices or the carbon price, including in connection with the Company's ambition to achieve carbon neutrality by 2050 together with society.

For the impairment tests:

- we confronted the hydrocarbon price scenarios used by the Company, prepared by the Strategy and Markets division, with publicly available industry information (from the IEA, brokers and consultants as applicable), in particular the price relating to the APS and NZE scenarios, considered by the IEA to be compatible with the Paris Agreement;

- we analyzed the carbon price assumptions included in the future cash flows, notably by comparing them with current market data and publicly available industry information (in particular, IEA);

- we assessed the consistency of the production end-dates used in the future cash flow forecast with those included in the contracts for license expiration;

- we compared the main assumptions (future hydrocarbon prices, future carbon prices, future operating costs, hydrocarbon reserve estimates, after-tax discount rates and expected future dividends) to those included in the analysis, budgets and forecasts approved by the Executive Committee and the Board of Directors;

- we assessed the consistency of the assumptions on future operating costs by calculating cost-to-production ratios and comparing them year over year;

- we compared oil production profiles to the proved and probable hydrocarbon reserves produced as part of the Company’s internal procedures;

- with the assistance of our valuation specialists, we re-performed the calculation of the after-tax discount rate used by management and we compared it to the rates calculated by market analysts;

- we assessed the consistency of the tax rates used by management with the applicable tax schemes and the oil agreements in place;

- we assessed the information disclosed in Note 3.D “Asset impairment” to the consolidated financial statements, including the sensitivity analysis of operating income and net income to the scenarios for hydrocarbon pricing and the carbon price.

For exploration expenditures capitalized in unproved mineral rights or work in progress:

- we inspected the documentation, supporting a sufficient quantity of hydrocarbon reserves (as further described in our critical audit matter below) or progress in assessing the reserves and the technical and economic viability of the project.

Finally, for Russian assets:

- we assessed the consolidation methods applied as at December 31, 2022 by the Company for its minority interests in Novatek, Yamal LNG and Arctic LNG 2, in a specific and evolving context, notably given sanctions;

- we assessed the valuation principles and terms resulting from the consolidation methods as well as the impairment losses determined for Novatek and Arctic LNG 2 shares.

**Effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of the oil and gas assets used in production activities in the Exploration & Production (E&P) and integrated Gas Renewables Power (iGRP) segments**

*Description of the Matter*

As discussed in the paragraph “Estimation of hydrocarbon reserves” of the note “Major judgments and accounting estimates” to the consolidated financial statements, the estimation of proved and proved developed hydrocarbon reserves is important for the implementation of the “Successful Efforts” method used to account for the Company’s oil and gas activities. Notes 7.1 “Intangible Assets” and 7.2 “Property, Plant and Equipment” to the consolidated financial statements outline that under this method, oil and gas assets are depreciated using the unit-of-production method based on either proved hydrocarbon reserves or proved developed hydrocarbon reserves. Those reserves are estimated by the Company’s petroleum engineers in accordance with industry practice and Securities and Exchange Commission (SEC) regulations.

The main assumptions used by the Company to estimate the proved and proved developed hydrocarbon reserves in order to calculate the depreciation of the oil and gas assets used in production activities in the E&P and iGRP segments for the year ended December 31, 2022 include the following: geoscience and engineering data used to determine deposit quantities, the contractual arrangements that determine the Company’s share of the reserves, and hydrocarbons prices.

We considered the effect of estimated proved and proved developed hydrocarbon reserves on the depreciation of oil and gas assets used in production activities in the E&P and iGRP segments to be a critical audit matter as management’s assessment of the Company’s assumptions used involves a high degree of complex judgment due to their uncertain nature.

*How We Addressed the Matter in Our Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of certain controls, implemented by the Company, to address the risk of material misstatement relating to the depreciation of oil and gas assets used in production activities in the E&P and iGRP segments, depending on proved and proved developed hydrocarbon reserves. This included testing certain controls on the determination and evaluation of deposit quantities and the modeling of the contractual arrangements that determine the Company’s share of proved and proved developed hydrocarbon reserves.

We assessed the qualifications and experience of the Company’s petroleum engineers responsible for estimating reserves.

We analyzed the main changes in proved and proved developed hydrocarbon reserves compared to the previous year.

We compared previously forecasted production to actual 2022 production.

We inspected evidence from contractual arrangements that determine the Company’s share of proved and proved developed hydrocarbon reserves until the term of the contracts and we evaluated, where applicable, the reasons leading the Company to believe that the renewal of the contractual arrangements is reasonably certain.

We assessed the consistency of the production end-dates used to calculate depreciation with those provided for in the contracts for license expiration and in the future cash flow forecasts used for the impairment tests.

We assessed the methodology applied by the Company to estimate these proved and proved developed hydrocarbon reserves, in light of SEC regulations and the 12-month average price for 2022.

Neuilly-sur-Seine and Paris-La Défense, France, March 21, 2023

/s/ PricewaterhouseCoopers Audit

We have served as the Company’s
auditor since 2022.

/s/ ERNST & YOUNG Audit

We have served as the Company’s
auditor since 2004.

**KPMG SA**

Tour EQHO
2, avenue Gambetta
CS 60055
92066 Paris-La Défense cedex
S.A. au capital de € 5 497 100
775 726 417 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

**ERNST & YOUNG Audit**

Tour First
TSA 14444
92037 Paris-La Défense cedex
S.A.S. à capital variable
344 366 315 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

TotalEnergies SE

Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements

To the Shareholders and Board of Directors,

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of TotalEnergies SE and subsidiaries ("the Company") as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2021, and the related notes (collectively, "the consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2021, in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are public accounting firms registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Paris-La Défense, France, March 16, 2022

KPMG SA

Represented by

/s/ Jacques-François, Georges, Marie Lethu
Jacques-François, Georges, Marie Lethu
Partner

/s/ Eric, Valéry, Jean-Yves Jacquet
Eric, Valéry, Jean-Yves Jacquet
Partner

We or our predecessor firms have served as the Company's auditor from 1996 to 2022.

ERNST & YOUNG Audit

/s/ ERNST & YOUNG Audit

We have served as the Company's auditor since 2004.

# Consolidated statement of income

**TotalEnergies**

| **For the year ended December 31,** (M$)[a] | | **2022** | **2021** | **2020** |
|---|---|---|---|---|
| **Sales** | *(Notes 3, 4, 5)* | **280,999** | **205,863** | **140,685** |
| Excise taxes | *(Notes 3 & 5)* | (17,689) | (21,229) | (20,981) |
| Revenues from sales | *(Notes 3 & 5)* | 263,310 | 184,634 | 119,704 |
| Purchases, net of inventory variation | *(Note 5)* | (169,448) | (118,622) | (77,486) |
| Other operating expenses | *(Note 5)* | (29,789) | (26,894) | (25,538) |
| Exploration costs | *(Note 5)* | (1,299) | (740) | (731) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | *(Note 5)* | (12,221) | (13,556) | (22,264) |
| Other income | *(Note 6)* | 2,849 | 1,312 | 2,237 |
| Other expense | *(Note 6)* | (7,344) | (2,317) | (1,506) |
| Financial interest on debt | | (2,386) | (1,904) | (2,147) |
| Financial income and expense from cash & cash equivalents | | 1,143 | 379 | 37 |
| Cost of net debt | *(Note 15)* | (1,243) | (1,525) | (2,110) |
| Other financial income | *(Note 6)* | 896 | 762 | 914 |
| Other financial expense | *(Note 6)* | (533) | (539) | (690) |
| Net income (loss) from equity affiliates | *(Note 8)* | (1,892) | 3,438 | 452 |
| Income taxes | *(Note 11)* | (22,242) | (9,587) | (318) |
| **CONSOLIDATED NET INCOME** | | **21,044** | **16,366** | **(7,336)** |
| TotalEnergies share | | 20,526 | 16,032 | (7,242) |
| Non-controlling interests | | 518 | 334 | (94) |
| Earnings per share ($) | | 7.91 | 5.95 | (2.90) |
| Fully-diluted earnings per share ($) | | 7.85 | 5.92 | (2.90) |

(a) Except for per share amounts.

# Consolidated statement of comprehensive income

**TotalEnergies**

| **For the year ended December 31,** (M$) | | **2022** | **2021** | **2020** |
|---|---|---|---|---|
| **Consolidated net income** | | **21,044** | **16,366** | **(7,336)** |
| **Other comprehensive income** | | | | |
| Actuarial gains and losses | *(Note 10)* | 574 | 1,035 | (212) |
| Change in fair value of investments in equity instruments | *(Note 8)* | 112 | 66 | 533 |
| Tax effect | | (96) | (411) | 65 |
| Currency translation adjustment generated by the parent company | *(Note 9)* | (4,976) | (7,202) | 7,541 |
| **Items not potentially reclassifiable to profit and loss** | | **(4,386)** | **(6,512)** | **7,927** |
| Currency translation adjustment | *(Note 9)* | 1,734 | 4,216 | (4,645) |
| Cash flow hedge | *(Notes 15 & 16)* | (5,452) | 278 | (313) |
| Variation of foreign currency basis spread | *(Note 15)* | 65 | 2 | 28 |
| Share of other comprehensive income of equity affiliates, net amount | *(Note 8)* | 3,497 | 706 | (1,831) |
| Other | | (16) | (1) | (8) |
| Tax effect | | 1,449 | (135) | 72 |
| **Items potentially reclassifiable to profit and loss** | | **1,277** | **5,066** | **(6,697)** |
| **Total other comprehensive income (net amount)** | | **(3,109)** | **(1,446)** | **1,230** |
| **COMPREHENSIVE INCOME** | | **17,935** | **14,920** | **(6,106)** |
| *- TotalEnergies share* | | *17,419* | *14,616* | *(6,312)* |
| *- Non-controlling interests* | *(Note 9)* | *516* | *304* | *206* |

# Consolidated balance sheet

**TotalEnergies**

| **As of December 31,** (M$) | | **2022** | **2021** | **2020** |
|---|---|---|---|---|
| **ASSETS** | | | | |
| **Non-current assets** | | | | |
| Intangible assets, net | *(Notes 4 & 7)* | 31,931 | 32,484 | 33,528 |
| Property, plant and equipment, net | *(Notes 4 & 7)* | 107,101 | 106,559 | 108,335 |
| Equity affiliates: investments and loans | *(Note 8)* | 27,889 | 31,053 | 27,976 |
| Other investments | *(Note 8)* | 1,051 | 1,625 | 2,007 |
| Non-current financial assets | *(Note 15)* | 2,731 | 2,404 | 4,781 |
| Deferred income taxes | *(Note 11)* | 5,049 | 5,400 | 7,016 |
| Other non-current assets | *(Note 6)* | 2,388 | 2,797 | 2,810 |
| **Total non-current assets** | | **178,140** | **182,322** | **186,453** |
| **Current assets** | | | | |
| Inventories, net | *(Note 5)* | 22,936 | 19,952 | 14,730 |
| Accounts receivable, net | *(Note 5)* | 24,378 | 21,983 | 14,068 |
| Other current assets | *(Note 5)* | 36,070 | 35,144 | 13,428 |
| Current financial assets | *(Note 15)* | 8,746 | 12,315 | 4,630 |
| Cash and cash equivalents | *(Note 15)* | 33,026 | 21,342 | 31,268 |
| Assets classified as held for sale | *(Note 2)* | 568 | 400 | 1,555 |
| **Total current assets** | | **125,724** | **111,136** | **79,679** |
| **TOTAL ASSETS** | | **303,864** | **293,458** | **266,132** |
| | | | | |
| **LIABILITIES & SHAREHOLDERS' EQUITY** | | | | |
| **Shareholders' equity** | | | | |
| Common shares | | 8,163 | 8,224 | 8,267 |
| Paid-in surplus and retained earnings | | 123,951 | 117,849 | 107,078 |
| Currency translation adjustment | | (12,836) | (12,671) | (10,256) |
| Treasury shares | | (7,554) | (1,666) | (1,387) |
| **Total shareholders' equity - TotalEnergies share** | *(Note 9)* | **111,724** | **111,736** | **103,702** |
| **Non-controlling interests** | | **2,846** | **3,263** | **2,383** |
| **Total shareholders' equity** | | **114,570** | **114,999** | **106,085** |
| **Non-current liabilities** | | | | |
| Deferred income taxes | *(Note 11)* | 11,021 | 10,904 | 10,326 |
| Employee benefits | *(Note 10)* | 1,829 | 2,672 | 3,917 |
| Provisions and other non-current liabilities | *(Note 12)* | 21,402 | 20,269 | 20,925 |
| Non-current financial debt | *(Note 15)* | 45,264 | 49,512 | 60,203 |
| **Total non-current liabilities** | | **79,516** | **83,357** | **95,371** |
| **Current liabilities** | | | | |
| Accounts payable | | 41,346 | 36,837 | 23,574 |
| Other creditors and accrued liabilities | *(Note 5)* | 52,275 | 42,800 | 22,465 |
| Current borrowings | *(Note 15)* | 15,502 | 15,035 | 17,099 |
| Other current financial liabilities | *(Note 15)* | 488 | 372 | 203 |
| Liabilities directly associated with the assets classified as held for sale | *(Note 2)* | 167 | 58 | 1,335 |
| **Total current liabilities** | | **109,778** | **95,102** | **64,676** |
| **TOTAL LIABILITIES & SHAREHOLDERS' EQUITY** | | **303,864** | **293,458** | **266,132** |

# Consolidated statement of cash flow

**TotalEnergies**

| **For the year ended December 31,** (M$) | | **2022** | **2021** | **2020** |
|---|---|---|---|---|
| **CASH FLOW FROM OPERATING ACTIVITIES** | | | | |
| Consolidated net income | | 21,044 | 16,366 | (7,336) |
| Depreciation, depletion, amortization and impairment | *(Note 5.3)* | 13,680 | 14,343 | 22,861 |
| Non-current liabilities, valuation allowances, and deferred taxes | *(Note 5.5)* | 4,594 | 962 | (1,782) |
| (Gains) losses on disposals of assets | | 369 | (454) | (909) |
| Undistributed affiliates' equity earnings | | 6,057 | (667) | 948 |
| (Increase) decrease in working capital | *(Note 5.5)* | 1,191 | (616) | 1,869 |
| Other changes, net | | 432 | 476 | (848) |
| **Cash flow from operating activities** | | **47,367** | **30,410** | **14,803** |
| **CASH FLOW USED IN INVESTING ACTIVITIES** | | | | |
| Intangible assets and property, plant and equipment additions | *(Note 7)* | (15,690) | (12,343) | (10,764) |
| Acquisitions of subsidiaries, net of cash acquired | | (94) | (321) | (966) |
| Investments in equity affiliates and other securities | | (3,042) | (2,678) | (2,120) |
| Increase in non-current loans | | (976) | (1,247) | (1,684) |
| **Total expenditures** | | **(19,802)** | **(16,589)** | **(15,534)** |
| Proceeds from disposals of intangible assets and property, plant and equipment | | 540 | 770 | 740 |
| Proceeds from disposals of subsidiaries, net of cash sold | | 835 | 269 | 282 |
| Proceeds from disposals of non-current investments | | 577 | 722 | 578 |
| Repayment of non-current loans | | 2,734 | 1,172 | 855 |
| **Total divestments** | | **4,686** | **2,933** | **2,455** |
| **Cash flow used in investing activities** | | **(15,116)** | **(13,656)** | **(13,079)** |
| **CASH FLOW FROM FINANCING ACTIVITIES** | | | | |
| Issuance (repayment) of shares: | | | | |
| – Parent company shareholders | | 370 | 381 | 374 |
| – Treasury shares | | (7,711) | (1,823) | (611) |
| Dividends paid: | | | | |
| – Parent company shareholders | | (9,986) | (8,228) | (6,688) |
| – Non-controlling interests | | (536) | (124) | (184) |
| Net issuance of perpetual subordinated notes | *(Note 9)* | – | 3,248 | 331 |
| Payments on perpetual subordinated notes | *(Note 9)* | (339) | (313) | (315) |
| Other transactions with non-controlling interests | | (49) | 652 | (204) |
| Net issuance (repayment) of non-current debt | *(Note 15)* | 1,108 | (359) | 15,800 |
| Increase (decrease) in current borrowings | | (6,073) | (10,856) | (6,501) |
| Increase (decrease) in current financial assets and liabilities | *(Note 15)* | 3,944 | (8,075) | (604) |
| **Cash flow from / (used in) financing activities** | | **(19,272)** | **(25,497)** | **1,398** |
| **NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS** | | **12,979** | **(8,743)** | **3,122** |
| Effect of exchange rates | | (1,295) | (1,183) | 794 |
| Cash and cash equivalents at the beginning of the period | | 21,342 | 31,268 | 27,352 |
| **CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD** | *(Note 15)* | **33,026** | **21,342** | **31,268** |

# Consolidated statement of changes in shareholders' equity

**TotalEnergies**

| (M$) | Common shares issued Number | Common shares issued Amount | Paid-in surplus and retained earnings | Currency translation adjustment | Treasury shares Number | Treasury shares Amount | Shareholders' equity - TotalEnergies share | Non-controlling interests | Total shareholders' equity |
|---|---|---|---|---|---|---|---|---|---|
| **As of January 1, 2020** | **2,601,881,075** | **8,123** | **121,170** | **(11,503)** | **(15,474,234)** | **(1,012)** | **116,778** | **2,527** | **119,305** |
| Net income 2020 | – | – | (7,242) | – | – | – | (7,242) | (94) | (7,336) |
| Other comprehensive income | – | – | (321) | 1,251 | – | – | 930 | 300 | 1,230 |
| **Comprehensive income** | **–** | **–** | **(7,563)** | **1,251** | **–** | **–** | **(6,312)** | **206** | **(6,106)** |
| Dividend | – | – | (7,899) | – | – | – | (7,899) | (234) | (8,133) |
| Issuance of common shares | 51,242,950 | 144 | 1,470 | – | – | – | 1,614 | – | 1,614 |
| Purchase of treasury shares | – | – | – | – | (13,236,044) | (611) | (611) | – | (611) |
| Sale of treasury shares[(a)] | – | – | (236) | – | 4,317,575 | 236 | – | – | – |
| Share-based payments | – | – | 188 | – | – | – | 188 | – | 188 |
| Share cancellation | – | – | – | – | – | – | – | – | – |
| Net issuance (repayment) of perpetual subordinated notes | – | – | 331 | – | – | – | 331 | – | 331 |
| Payments on perpetual subordinated notes | – | – | (308) | – | – | – | (308) | – | (308) |
| Other operations with non-controlling interests | – | – | (61) | (4) | – | – | (65) | (117) | (182) |
| Other items | – | – | (14) | – | – | – | (14) | 1 | (13) |
| **As of December 31, 2020** | **2,653,124,025** | **8,267** | **107,078** | **(10,256)** | **(24,392,703)** | **(1,387)** | **103,702** | **2,383** | **106,085** |
| Net income 2021 | – | – | 16,032 | – | – | – | 16,032 | 334 | 16,366 |
| Other comprehensive income | – | – | 991 | (2,407) | – | – | (1,416) | (30) | (1,446) |
| **Comprehensive income** | **–** | **–** | **17,023** | **(2,407)** | **–** | **–** | **14,616** | **304** | **14,920** |
| Dividend | – | – | (8,200) | – | – | – | (8,200) | (124) | (8,324) |
| Issuance of common shares | 10,589,713 | 31 | 350 | – | – | – | 381 | – | 381 |
| Purchase of treasury shares | – | – | – | – | (37,306,005) | (1,823) | (1,823) | – | (1,823) |
| Sale of treasury shares[(a)] | – | – | (216) | – | 4,573,195 | 216 | – | – | – |
| Share-based payments | – | – | 143 | – | – | – | 143 | – | 143 |
| Share cancellation | (23,284,409) | (74) | (1,254) | – | 23,284,409 | 1,328 | – | – | – |
| Net issuance (repayment) of perpetual subordinated notes | – | – | 3,254 | – | – | – | 3,254 | – | 3,254 |
| Payments on perpetual subordinated notes | – | – | (368) | – | – | – | (368) | – | (368) |
| Other operations with non-controlling interests | – | – | 30 | (6) | – | – | 24 | 689 | 713 |
| Other items | – | – | 9 | (2) | – | – | 7 | 11 | 18 |
| **As of December 31, 2021** | **2,640,429,329** | **8,224** | **117,849** | **(12,671)** | **(33,841,104)** | **(1,666)** | **111,736** | **3,263** | **114,999** |
| Net income 2022 | – | – | 20,526 | – | – | – | 20,526 | 518 | 21,044 |
| Other comprehensive income | – | – | (2,933) | (174) | – | – | (3,107) | (2) | (3,109) |
| **Comprehensive income** | **–** | **–** | **17,593** | **(174)** | **–** | **–** | **17,419** | **516** | **17,935** |
| Dividend | – | – | (9,989) | – | – | – | (9,989) | (536) | (10,525) |
| Issuance of common shares | 9,367,482 | 26 | 344 | – | – | – | 370 | – | 370 |
| Purchase of treasury shares | – | – | – | – | (140,207,743) | (7,711) | (7,711) | – | (7,711) |
| Sale of treasury shares[(a)] | – | – | (318) | – | 6,195,654 | 318 | – | – | – |
| Share-based payments | – | – | 229 | – | – | – | 229 | – | 229 |
| Share cancellation | (30,665,526) | (87) | (1,418) | – | 30,665,526 | 1,505 | – | – | – |
| Net issuance (repayment) of perpetual subordinated notes | – | – | (44) | – | – | – | (44) | – | (44) |
| Payments on perpetual subordinated notes | – | – | (331) | – | – | – | (331) | – | (331) |
| Other operations with non-controlling interests | – | – | 45 | 9 | – | – | 54 | 37 | 91 |
| Other items | – | – | (9) | – | – | – | (9) | (434) | (443) |
| **AS OF DECEMBER 31, 2022** | **2,619,131,285** | **8,163** | **123,951** | **(12,836)** | **(137,187,667)** | **(7,554)** | **111,724** | **2,846** | **114,570** |

(a) Treasury shares related to the performance share grants.

Changes in equity are detailed in Note 9.

TotalEnergies

# Notes to the Consolidated Financial Statements

On February 7, 2023, the Board of Directors established and authorized the publication of the Consolidated Financial Statements of TotalEnergies SE for the year ended December 31, 2022, which will be submitted for approval to the Shareholders' Meeting to be held on May 26, 2023.

# Basis of preparation of the consolidated financial statements

The Consolidated Financial Statements of TotalEnergies SE and its subsidiaries (the Company) are presented in U.S. dollars and have been prepared on the basis of IFRS (International Financial Reporting Standards) as adopted by the European Union and IFRS as issued by the IASB (International Accounting Standard Board) as of December 31, 2022.

The accounting principles applied for the consolidated financial statements at December 31, 2022, were the same as those that were used for the financial statements at December 31, 2021, except for amendments and interpretations of IFRS which were mandatory for the periods beginning after January 1, 2022 (and not early adopted by TotalEnergies). Their application did not have a significant impact on the financial statements as of December 31, 2022.

As of January 1, 2020, TotalEnergies early adopted the amendments to IFRS 7 and IFRS 9 relating to the interest rate benchmark reform phase II. In particular, these amendments allow to maintain the hedge accounting qualification of interest rate derivatives. As part of this transition, TotalEnergies set up a working group in order to cover all aspects relating to the IBOR reform and its impacts.

As of December 31, 2022, the transition to IBOR indices had no notable impact on the financial instruments managed by TotalEnergies's treasury, the main USD LIBOR maturities, including the 3-month USD LIBOR, continuing to be published until June 2023. In addition, the EONIA rate was published for the last time on January 3, 2022 and replaced by the ESTR rate. This change had a non-material impact on the remuneration of cash collateral exchanged with clearing houses. Bonds and associated derivatives impacted by the IBOR reform are presented in Note 15.1 "Financial debt and derivative financial instruments". In this context, the financing contracts for the Company's projects continue to be amended in accordance with the recommendations of regulators and according to the required schedule.

# Major judgments and accounting estimates

The preparation of financial statements in accordance with IFRS for the closing as of December 31, 2022 requires the General Management to make estimates, assumptions and judgments that affect the information reported in the Consolidated Financial Statements and the Notes thereto.

These estimates, assumptions and judgments are based on historical experience and other factors believed to be reasonable at the date of preparation of the financial statements. They are reviewed on an on-going basis by General Management and therefore could be revised as circumstances change or as a result of new information.

Different estimates, assumptions and judgments could significantly affect the information reported, and actual results may differ from the amounts included in the Consolidated Financial Statements and the Notes thereto.

The following summary provides further information about the key estimates, assumptions and judgments that are involved in preparing the Consolidated Financial Statements and the Notes thereto. It should be read in conjunction with the sections of the Notes mentioned in the summary.

- **Estimation of hydrocarbon reserves**

The estimation of oil and gas reserves is a key factor in the Successful Efforts method used by TotalEnergies to account for its oil and gas activities.

TotalEnergies' oil and gas reserves are estimated by TotalEnergies' petroleum engineers in accordance with industry standards and SEC (*U.S. Securities and Exchange Commission)* regulations.

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geosciences and engineering data, can be determined with reasonable certainty to be recoverable (from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations), prior to the time at which contracts providing the rights to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

Proved oil and gas reserves are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. TotalEnergies reassesses its oil and gas reserves at least once a year on all its properties.

The Successful Efforts method and the mineral interests and property, plant and equipment of exploration and production are presented in Note 7 "Intangible and tangible assets".

- **Impairment of property, plant and equipment, intangible assets and goodwill**

As part of the determination of the recoverable value of assets for impairment (IAS 36), the estimates, assumptions and judgments mainly concern hydrocarbon prices scenarios, operating costs, production volumes and oil and gas proved and probable reserves, refining margins and product marketing conditions (mainly petroleum, petrochemical and chemical products as well as renewable industry products). The estimates and assumptions used by the executive management are determined in specialized internal departments in light of economic conditions and external expert analysis. The discount rate is reviewed annually.

In 2020, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, TotalEnergies had reviewed its oil assets that could be qualified as "stranded", and therefore had decided to impair its oil sands assets in Canada.

Impairment of assets and the method applied are described in Note 3 "Business segment information".

- **Climate change and energy transition**

Climate change and the energy transition were considered in preparing the Consolidated Financial Statements. They may have significant impacts on the value of TotalEnergies's assets and liabilities mentioned below, and on similar assets and liabilities that may be recognized in the future.

TotalEnergies supports the goals of the 2015 Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and the fight against poverty, and which aims to keep the increase in average global temperatures well below 2°C compared to pre-industrial levels.

TotalEnergies wants to rise to the dual challenge of meeting the energy needs of a growing world population while reducing global warming, and play an active role in the transformation that is underway in the energy industry, by transforming itself and becoming a broad energy company, capable of producing and selling the low-carbon molecules and electrons that the energy transition needs.

TotalEnergies has embedded the changing energy markets into its strategy by investing in renewables and electricity, developing the production of biofuels, biogas and low-carbon hydrogen, favoring the use of natural gas, the transition fuel whose flexibility offers a lower carbon alternative to coal for electricity production and helps to mitigate the intermittency of solar and wind energies, targeting its investments in low-cost and low-emission oil, and developing nature-based carbon storage solutions as well as $CO_2$ capture and sequestration.

TotalEnergies is committed to reducing its carbon footprint caused by the production, processing and supply of energy to its customers. Although the pace of the transition will depend on public policy, consumption patterns and resulting demand, TotalEnergies has set itself the mission to offer its customers energy products that are affordable and generate less $CO_2$ and to support its partners and suppliers in their own low-carbon strategies.

TotalEnergies' ambition is to get to Net Zero by 2050, together with society. As in 2021, the Board of Directors submitted a Sustainability & Climate - Progress Report 2022 to a consultative vote of the Shareholders of TotalEnergies at the Combined Shareholders' Meeting of May 25, 2022. This report gives an account of the progress made in the implementation of the Company's ambition in terms of sustainable development and energy transition towards carbon neutrality, and with regards to its related objectives for 2030, and it also completes this ambition (resolution approved by 89% of votes).

TotalEnergies evaluates the solidity of its portfolio, particularly new material capital expenditure investments, on the basis of relevant scenarios and sensitivity tests. Each material capex investment, including in the exploration, acquisition or development of oil and gas resources, as well as in other energies and technologies, is subject to an evaluation that takes into consideration the objectives of the Paris Agreement, each new investment thus enhancing the resilience of the Company's portfolio.

Economic criteria are analyzed as part of a price scenario for oil and gas that is compatible with the Paris agreement goals (Brent at 50$/b under the IEA APS scenario and Henry Hub at $3 per Mbtu). Even if CO2 pricing does not currently apply in all of the Company's host countries, TotalEnergies includes as a base case in its investment criteria a minimum CO2 price of 100$/t (or the applicable price in a given country, if it is higher), and beyond 2028, the CO2 price is inflated by 2% per year. For investments in upstream oil & gas projects, TotalEnergies focuses on value creation and cash generation over volume, and the Company prioritizes projects with low technical costs (less than $20/b for operating costs plus investment costs) or low-breakeven points (less than $30/b, taxes included) and a profitability that exceeds an internally defined threshold. CCS and NBS projects are evaluated on the basis of the actual cost of one ton of CO2 (internal threshold in $/tCO2). As for projects in renewable energies, they are evaluated on their ability to generate a return on equity higher than 10%.

All oil and gas projects must help to lower the average intensity of greenhouse gas emissions (Scope 1+2) in their respective category. Currently, that means:

- For new oil and gas projects (greenfield and acquisitions), the intensity of Scope 1+2 greenhouse gas is compared depending on their nature, to the intensity of the average greenhouse gas to the Company's Upstream production assets or that of various Downstream units (LNG plants, refineries).
- For additional investments in existing assets (brownfield projects), the investment must lower the Scope 1+2 emissions intensity of the asset in question.
- For projects involving other energies and technologies (biofuels, biogas, CCS, etc.), the greenhouse-gas emissions reductions are assessed based on their contribution to reducing the Company's emissions.

Besides, as described in note 3. D "Impairment of assets", in order to ensure the resilience of its assets recognized on the balance sheet, the oil price trajectory retained by the Company for the computation of its impairments converges in the long term towards the price retained in 2050 by the IEA's NZE scenario, i.e. $\$24.5_{2022}$/b; the prices retained for gas, the transition fuel, stabilize between now and 2027 and until 2040 at lower levels than current prices and converge towards the IEA's NZE scenario prices in 2050.

The strategy is implemented in the long-term plan of the Company, which is forecasted for a 5-year period, updated every year, and approved by the Board of Directors.

It reflects the economic environment, the ambition of the Company on carbon neutrality (Net Zero emissions) together with society, the related targets by 2030 and the current dynamics of energy transition, knowing that there is still significant uncertainty on the path to energy transition that the various countries will take.

The financial statements of TotalEnergies are prepared in coherence with the main technical and economic assumptions of the long-term plan and the objectives stated above.

They are also sensitive to various environmental considerations, including oil & gas prices and refining margins, as well as technical parameters, such as the estimation of hydrocarbons reserves. In particular, the selected assumptions and estimates have an impact on hydrocarbons reserves, the useful life of assets, the impairment of assets and provisions.

***Asset impairments***

The energy transition is likely to have an impact on future oil and gas prices and therefore on the recoverable amount of intangible assets and property, plant and equipment in the oil and gas industry.

The principles applied in determining the recoverable amounts are as follows:

- The future cash flows were determined using the assumptions included in the 2023 budget and in the long-term plan of the Company approved by the Executive Committee and the Board of Directors. These assumptions, in particular including operational costs, estimation of oil and gas reserves, future volumes produced and marketed, represent the best estimate from the Company Management of economic and technical conditions over the remaining life of the assets.

- The Company, notably relying on data on global energy demand from the “World Energy Outlook” issued by the IEA since 2016, and on its own supply and demand assessments, determines oil & gas prices scenarios based on assumptions about the evolution of core indicators of the Upstream activity (demand for hydrocarbons in different markets, investment forecasts, decline in production fields, changes in oil & gas reserves and supply by area and by nature of oil & gas products), of the Downstream activity (changes in refining capacity and demand for petroleum products) and by integrating “climate” challenges.
- These price scenarios, first prepared within the Strategy & Markets Division, are also reviewed with the Company segments which bring their own expertise. They also integrate studies issued by international agencies, banks and independent consultants. They are then approved by the Executive Committee and the Board of Directors.
- The IEA 2022 World Energy Outlook anticipates three scenarios that are key references for the Company: the STEPS (Stated Policies Scenario) and APS (Announced Pledges Scenario) for the short/mid-term and the NZE (Net Zero Emissions by 2050) for the long-term.
- The STEPS only includes climate actions already implemented to date around the world and those under development. The APS also takes into account climate ambitions declared to date in the world, including the NDCs (Nationally Determined Contributions) and carbon neutrality ambitions. It is considered by the IEA to be compatible with the Paris Agreement. The IEA's NZE is understood as the set of actions to be taken to be compatible with a 1.5°C scenario in 2050 (without overshooting). This normative scenario does not predict oil demand in the short and medium term, and therefore the price scenarios it proposes, particularly in the short and medium term, do not include a "realistic" evolution of demand. In fact, this scenario predicts that oil demand will fall by 20% between 2020 and 2030, whereas, according to the Company's projections and those of most energy companies and consultants, demand will stabilize between 2025 and 2030, before declining from 2030 onwards.
- Beyond the 2020-2030 decade, the oil price trajectory retained by the Company converges in the long term, to the price retained in 2050 by the IEA's NZE scenario, i.e $\$24.5_{2022}$/b. The prices retained for gas, the transition fuel, stabilize between now and 2027 and until 2040 at lower levels than the current prices and converge towards the IEA's NZE scenario prices in 2050.

The oil price trajectories adopted by the Company are based on the following assumptions:

- Oil demand has experienced sustained growth after the Covid crisis as the global economic recovery generated strong tensions on energy prices from mid-2021 onwards, exacerbated in 2022 by the war in Ukraine. Despite the risks of recession in Europe in particular, global liquid demand in 2023 is expected to be higher than in 2019 pre-crisis, notably thanks to the end of lockdown measures in China allowing the restart of industrial activity. It should continue to grow until 2030, in a context of sustained growth in global energy demand. Indeed, population growth and rising living standards, particularly in emerging countries, should sustain oil consumption, despite the gradual electrification of transport and efficiency gains in combustion engines, mainly in developed countries. As for oil supply, it is marked by historic production cuts decided (and implemented) by OPEP+ members and by the difficulties encountered by some non-OPEP+ producers. In the US, while production in 2023 is expected to be slightly higher than in 2019, doubts remain about the capacity for further growth in shale oil in subsequent years. The Company maintains its analysis that the weakness of investment oil upstream since 2015, accentuated by the health and economic crisis of 2020 and the natural decline of fields currently in production, leads to a global supply-demand balance that will remain tight until 2030. Thus the Brent price scenario used to determine the value in use of the CGUs assumes a stable price of $\$70_{2022}$/b from 2023 to 2030. The developments observed at the end of 2022, in particular the resurgence of the Covid pandemic in China, could slow down the Chinese economic recovery, and therefore justify this price level from 2023.
- Beyond 2030, given technological developments, particularly in the transport sector, oil demand should have reached its peak and the selected price scenario decreases linearly to reach $\$50_{2022}$/b in 2040 and then $\$24.5_{2022}$/b in 2050, in line with the NZE scenario.

  The average Brent prices over the period 2023-2050 thus stands at $\$53.9_{2022}$/b.

For natural gas, the transition fuel, the price trajectory adopted by the Company is based on the following assumptions:

- Natural gas demand in 2021 has exceeded its pre-crisis level with very strong tensions on prices in Europe and, by extension, in Asia through LNG prices, following the cuts in Russian pipe gas imports that began at the end of 2021 and continued in 2022 with the complete shutdown of the Nordstream. Global gas demand in 2022 is estimated to be almost at the level of 2021. The Company anticipates stable demand in 2023 with the recourse to American LNG to replace Russian gas in Europe, still in competition with Asia. The Company thus anticipates a return in 2023 to higher prices than before the crisis on the Asia, Europe and USA hubs, but not to the same levels as the highs reached in the third quarter of 2022. Thereafter, natural gas demand would be driven by the same fundamentals as oil (decrease in Europe but resistance in Asia-Pacific), plus its substitution for coal in power generation and by its role as a flexible and controllable source to mitigate the intermittent use and seasonality of renewable energies. The abundant global supply and the growth of liquefied natural gas would, however, limit the potential for higher gas prices. Beyond 2040, with the development of renewables including storage and hydrogen, gas demand is expected to stabilize.

In this context, the gas price level used to determine the value in use of the CGUs concerned is as follows:

- On the NBP quotation (Europe): $\$20_{2022}$/Mbtu in 2023, $\$17_{2022}$/Mbtu in 2024, $\$14_{2022}$/Mbtu in 2025, $\$11_{2022}$/Mbtu in 2026, then $\$8_{2022}$/Mbtu between 2027 and 2040.
- On the Henry Hub quotation (United States): $\$3_{2022}$/Mbtu between 2023 and 2040.
- On the DES Japan (Asia) quotation: $\$21_{2022}$/Mbtu in 2023, $\$18_{2022}$/Mbtu in 2024, $\$15_{2022}$/Mbtu in 2025, $\$12_{2022}$/Mbtu in 2026, then $\$9_{2022}$/Mbtu between 2027 and 2040.

From 2040 onwards, the price trajectory converges towards the price retained in 2050 by the NZE scenario, i.e. $\$3.9_{2022}$/Mbtu for NBP, $\$1.8_{2022}$/Mbtu for Henry Hub and $\$5.2_{2022}$/Mbtu DES Japan (Asia).

The future operational costs were determined by taking into account the existing technologies, the fluctuation of prices for petroleum services in line with market developments and the internal cost reduction programs effectively implemented.

The determination of value in use also takes into account on all assets a minimum $CO_2$ cost of $100/t or the applicable price in a given country, if it is higher. Beyond 2028, the $CO_2$ price is inflated by 2% per year.

The future cash flows are estimated over a period consistent with the life of the assets of the CGUs. They are prepared post-tax and take into account specific risks related to the CGUs' assets. They are discounted using an 8% post-tax discount rate, this rate being the weighted-average cost of TotalEnergies capital estimated from historical market data. This rate was 7% in 2021 and 2020. The value in use calculated by discounting the above post-tax cash flows using an 8% post-tax discount rate is not materially different from the value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates generally range from 7% to 14%.

Asset impairments are subject to sensitivity testing. In particular, upstream assets are tested as follows:

- Decreases of -10% and -20% in the hydrocarbon’s prices, over the duration of the price scenario.

- Consideration of a CO2 cost of $200/t, inflated by 2% per year from 2028 onwards for all assets.
- Increase or decrease of 1% in the discount rate of future cash flows.

Finally, in June 2020, TotalEnergies also reviewed its upstream assets that can be qualified as “stranded”, meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects concerned are the Fort Hills and Surmont oil sands projects in Canada. TotalEnergies has decided to take only proved reserves into account for impairment testing on these two assets - contrary to general practice which considers proved and probable reserves - and to approve no new projects for increasing the capacity of these Canadian oil sand assets.

The Company’s strategy of focusing new oil investments on low carbon intensity projects also led it to exit from extra heavy crude oil assets in Venezuela’s Orinoco Belt in 2021.

The characteristics of TotalEnergies' portfolio mitigate the risk of having stranded assets in the future if a structural decline in demand for hydrocarbons occurs due to stricter global environmental regulations and constraints and a resulting change in consumer preferences.

The Company will continue to review price assumptions as the energy transition progresses and this may result in additional impairment charges in the future.

The effect of asset impairments on TotalEnergies' financial statements and the associated sensitivity calculations are detailed in note 3.D Asset impairment

***Exploration assets***

The energy transition could affect the future development or economic viability of certain exploration assets.

TotalEnergies applies IFRS 6 “Exploration for and Evaluation of Mineral Resources”. Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Exploratory wells are capitalized and tested for impairment on an individual basis as follows:

- Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;
- Costs of exploratory wells are capitalized as work in progress until proved reserves have been found, if both of the following conditions are met:
    - The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made;
    - TotalEnergies is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether TotalEnergies is waiting for governmental or other third-party authorization on a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to exploration costs.

These assets will continue to be carefully reviewed as the energy transition progresses, in line with the resulting capital expenditure allocation policy.

The effect of exploration activities on the financial statements of TotalEnergies is detailed in note 7.2 Property, plant and equipment.

***Intangible and tangible assets - depreciation and useful lives***

The energy transition may curtail the useful life of oil and gas assets, thereby increasing the annual depreciation charges related to these assets.

The following accounting principles are applied to the hydrocarbon production assets of exploration and production activities:

Unproved mineral interests are tested for impairment based on the results of the exploratory activity or as part of the impairment tests of the cash-generating units to which they are allocated.

Unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves.

The corresponding expense is recorded as depreciation of tangible assets and mineral interests.

Development costs of oil and gas production facilities are capitalized. These costs include borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations.

The depletion rate of development wells and of production assets is equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

In the event that, due to the price effect on reserves evaluation, the unit-of-production method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated with the price of the previous year. This was the case for fiscal year 2020 where the method of unit-of-production depreciation was applied to all assets over 2020 based on proved reserves measured with the price used in 2019. As of December 31, 2021, and December 31, 2022, this alternative method is not applied as, given the price used to assess the reserves, the unit-of-production method correctly reflects the useful life of the assets.

With respect to phased development projects or projects subject to progressive well production start-up, the fixed assets’ depreciable amount, excluding production or service wells, is adjusted to exclude the portion of development costs attributable to the undeveloped reserves of these projects.

With respect to production sharing contracts, the unit-of-production method is based on the portion of production and reserves assigned to TotalEnergies taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil/gas) as well as the sharing of hydrocarbon rights after deduction of cost oil (profit oil/gas).

Hydrocarbon transportation and processing assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the economic life of the asset.

Given the characteristics of the Company’s portfolio of oil & gas assets, its current value on the balance sheet will be almost entirely depreciated by 2040.

Consequently, TotalEnergies does not anticipate significant changes in the useful life of its existing oil and gas assets that would represent an element of significant judgment impacting its consolidated accounts in the future.

The impact of the depreciation of oil and gas assets on the financial statements of TotalEnergies is detailed in notes 7.1 Intangible assets and 7.2 Property, plant and equipment.

***Asset retirement obligations***

The energy transition may bring forward asset retirement obligations of certain oil and gas assets, thereby increasing the present value of the associated provisions.

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a discount rate to the amount of the liability. Given the long-term nature of expenditures related to our asset retirement obligations, the rate is determined by reference to the rates of high quality AA-rated corporate bonds on the USD area for a long-term horizon. The increase of the provision due to the passage of time is recognized as “Other financial expense”.

The discount rate used for the valuation of asset retirement obligation is 4% in 2022 and 3% in 2021 and in 2020 (the expenses are estimated at current currency values with an inflation rate of 2% in 2022 and 1.5% in 2021 and in 2020).

In upstream activities, in application of its internal procedures, TotalEnergies regularly reviews, on an asset-by-asset basis, the estimate of its future asset retirement costs, as well as the date at which work will be performed. The assets and liabilities recognized in respect of retirement obligations under these rules as described in note 12.1 Provisions and other non-current liabilities are adjusted accordingly.

The Company will continue to review its estimates of both costs and the maturity of commitments on a regular basis and will take into account any significant impact that may result from changes in these parameters in the future.

The effect of the asset retirement obligations on the financial statements of TotalEnergies and the associated sensitivity calculations are detailed in note 12.1 Provisions and other non-current liabilities. A maturity schedule of these obligations is presented in note 13.1 Off-balance sheet commitments and contractual obligations.

- **Employee benefits**

The benefit obligations and plan assets can be subject to significant volatility due in part to changes in market values and actuarial assumptions. These assumptions vary between different pension plans and thus take into account local conditions. They are determined following a formal process involving expertise and TotalEnergies internal judgments, in financial and actuarial terms, and also in consultation with actuaries and independent experts.

The assumptions for each plan are reviewed annually and adjusted if necessary to reflect changes from the experience and actuarial advice. The discount rate is reviewed quarterly.

Payroll, staff and employee benefits obligations and the method applied are described in Note 10 “Payroll, staff and employee benefits obligations”.

- **Asset retirement obligations**

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

This estimate is based on information available in terms of costs and work program. It is regularly reviewed to take into account the changes in laws and regulations, the estimates of reserves and production, the analysis of site conditions and technologies.

The discount rate is reviewed annually.

Asset retirement obligations and the method used are described in Note 12 “Provisions and other non-current liabilities”.

- **Income Taxes**

A tax liability is recognized when in application of a tax regulation, a future payment is considered probable and can be reasonably estimated. The exercise of judgment is required to assess the impact of new events on the amount of the liability.

Deferred tax assets are recognized in the accounts to the extent that their recovery is considered probable. The amount of these assets is determined after taking into account deferred tax liabilities with comparable maturity, arising from the same entities and tax regimes. It takes into account existing taxable profits and future taxable profits which estimation is inherently uncertain and subject to change over time. The exercise of judgment is required to assess the impact of new events on the value of these assets and including changes in estimates of future taxable profits and the deadlines for their use.

In addition, these tax positions may depend on interpretations of tax laws and regulations in the countries where TotalEnergies operates. These interpretations may have uncertain nature. Depending on the circumstances, they are final only after negotiations or resolution of disputes with authorities that can last several years.

Incomes taxes and the accounting methods are described in Note 11 “Income taxes”.

- **Russian-Ukrainian conflict**

The consolidated financial statements as of December 31, 2022 are impacted by the Russian-Ukrainian conflict.

Since February 2022, Russia’s invasion of Ukraine led European and American authorities to adopt several sets of sanctions measures targeting Russian and Belarusian persons and entities, as well as the financial sector.

On March 2022, TotalEnergies announced that, given the uncertainty created by the technological and financial sanctions on the ability to carry out the Arctic LNG 2 project currently under construction and their probable tightening with the worsening conflict, TotalEnergies SE had decided to no longer book proved reserves for the Arctic LNG 2 project.

Early April 2022, new sanctions were effectively adopted by the European authorities, notably prohibiting export from European Union countries of goods and technology for use in the liquefaction of natural gas benefiting a Russian company. It appeared that these new prohibitions constitute additional risks on the execution of the Arctic LNG 2 project.

The potential impact of international sanctions on the value of TotalEnergies' stake in Novatek led the Company to identify indications of impairment. The impairment tests performed in order to determine the value in use based on future cash flows, taking into account assumptions reflecting the impact of the sanctions on future cash flows, led TotalEnergies to record impairment charges in the second quarter and again in the third quarter of 2022.

In addition, on July 18, 2022, TotalEnergies agreed to sell to Novatek TotalEnergies' 49% interest in Terneftegaz, which operates the Termokarstovoye gas and condensates field in Russia. This transfer was finalized on September 15, 2022.

Finally on December 9, 2022, the Board of Directors of TotalEnergies decided to withdraw the representatives of the Company from the Board of Directors of PAO Novatek with immediate effect.

These events had the following impacts on the 2022 consolidated financial statements.

- TotalEnergies recorded, in its accounts as of March 31, 2022, an impairment of $(4,095) million, concerning notably Arctic LNG 2.
- The Company recorded, in its accounts of the second and third quarter, of 2022, impairments of $(3,513) million and $(3,056) million respectively mainly concerning Novatek.
- At the end of the fourth quarter of 2022, the criteria for significant influence no longer being met under IAS 28 “Investments in associates and joint ventures”, TotalEnergies’ 19.4% stake in Novatek is no longer accounted for under the equity method in the Company’s accounts. This led to the recognition of a supplementary impairment loss of $(4,092) million in the fourth quarter of 2022 financial statements.
- In this context, the Company has ensured that there no impairment needed to be recognized on Yamal LNG, by testing the value of its equity accounted investment.

In total, the impact of impairments and provisions recorded in 2022 in relation to the Russian-Ukrainian conflict amounts to $(14,756) million in net income, TotalEnergies share.

The table below presents the contribution of Russian assets to the key income and cash flow indicators:

| **Russian Upstream Assets (M$)** | **2022** | **2021** |
|---|---|---|
| Net income (share) TotalEnergies | (11,578) | 1,995 |
| Operating cash flow | 1,480 | 1,163 |

The Capital Employed[1] by TotalEnergies in Russia as of December 31, 2022 was $2,874 million.

| | **As of December 31, 2022** | **As of December 31, 2021** |
|---|---|---|
| PAO Novatek | – | 6,243 |
| Yamal LNG | 4,626 | 4,333 |
| Arctic LNG 2 | – | 2,450 |
| Terneftegas | – | 573 |
| Kharyaga | – | 53 |
| Provisions | (1,752) | – |
| **Total** | **2,874** | **13,652** |

Depending on the developments of the Russian-Ukrainian conflict and the measures that the European and American authorities could be required to take, the activities of TotalEnergies in Russia, in particular those relating to the Yamal LNG asset, could be affected in the future.

## Judgments in case of transactions not addressed by any accounting standard or interpretation

Furthermore, when the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, the management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

[1] Capital employed consists of non-current assets and working capital, at replacement cost, net of deferred taxes and non-current liabilities.

# Note 1 General accounting principles

## 1.1 Accounting principles

### A) Principles of consolidation

Entities that are directly controlled by the parent company or indirectly controlled by other consolidated entities are fully consolidated.

Investments in joint ventures are consolidated under the equity method. TotalEnergies accounts for joint operations by recognizing its share of assets, liabilities, income and expenses.

Investments in associates, in which TotalEnergies has significant influence, are accounted for by the equity method. Significant influence is presumed when TotalEnergies holds, directly or indirectly (e.g. through subsidiaries), 20% or more of the voting rights. Companies in which ownership interest is less than 20%, but over which TotalEnergies is deemed to exercise significant influence, are also accounted for by the equity method.

All internal balances, transactions and income are eliminated.

### B) Business combinations

Business combinations are accounted for using the acquisition method. This method requires the recognition of the acquired identifiable assets and assumed liabilities of the companies acquired by TotalEnergies at their fair value.

The purchase accounting of the acquisition is finalized up to a maximum of one year from the acquisition date.

The acquirer shall recognize goodwill at the acquisition date, being the excess of:

- The consideration transferred, the amount of non-controlling interests and, in business combinations achieved in stages, the fair value at the acquisition date of the investment previously held in the acquired company;
- Over the fair value at the acquisition date of acquired identifiable assets and assumed liabilities.

If the consideration transferred is lower than the fair value of acquired identifiable assets and assumed liabilities, an additional analysis is performed on the identification and valuation of the identifiable elements of the assets and liabilities. After having completed such additional analysis, any negative goodwill is recorded as income.

Non-controlling interests are measured either at their proportionate share in the net assets of the acquired company or at fair value.

In transactions with non-controlling interests, the difference between the price paid (received) and the book value of non-controlling interests acquired (sold) is recognized directly in equity.

### C) Foreign currency translation

The presentation currency of TotalEnergies' Consolidated Financial Statements is the US dollar. However, the functional currency of the parent company is the euro. The resulting currency translation adjustments are presented on the line "currency translation adjustment generated by the parent company" of the consolidated statement of comprehensive income, within "items not potentially reclassifiable to profit and loss". In the balance sheet, they are recorded in "currency translation adjustment".

The financial statements of subsidiaries are prepared in the currency that most clearly reflects their business environment. This is referred to as their functional currency.

Since July 1, 2018, Argentina is considered to be hyperinflationary. IAS 29 "Financial Reporting in Hyperinflationary Economies" is applicable to entities whose functional currency is the Argentine peso. The functional currency of the Argentine Exploration & Production subsidiary is the US dollar, therefore IAS 29 has no incidence on TotalEnergies accounts. Net asset of the other business segments is not significant.

#### *(i) Monetary transactions*

Transactions denominated in currencies other than the functional currency of the entity are translated at the exchange rate on the transaction date. At each balance sheet date, monetary assets and liabilities are translated at the closing rate and the resulting exchange differences are recognized in the statement of income.

#### *(ii) Translation of financial statements*

Assets and liabilities of entities denominated in currencies other than dollar are translated into dollar on the basis of the exchange rates at the end of the period. The income and cash flow statements are translated using the average exchange rates for the period. Foreign exchange differences resulting from such translations are either recorded in shareholders' equity under "Currency translation adjustments" (for TotalEnergies share) or under "Non-controlling interests" (for the share of non-controlling interests) as deemed appropriate.

## 1.2 Significant accounting principles applicable in the future

The expected impact of the standards or interpretations published respectively by the International Accounting Standards Board (IASB) and the International Financial Reporting Standards Interpretations Committee (IFRS IC) which were not yet in effect at December 31, 2022, is not material.

# Note 2 Changes in TotalEnergies' perimeter

## 2.1 Main acquisitions and divestments

In 2022, the main changes in TotalEnergies perimeter were as follows:

### ➢Integrated Gas, Renewables & Power

- On February 28, 2022, TotalEnergies has successfully been named a winner of maritime lease area OCS-A 0538 by the BOEM (Bureau of Ocean Energy Management) in the New York Bight auction in United States.

  This bid for the development of an offshore wind farm off the U.S. East Coast was won for a consideration of $795 million (100%) by both TotalEnergies and EnBW.

  Located up to 47 nautical miles (87 kilometers) from the coast, the lease covers a 132 square miles (341 square kilometer) area that could accommodate a generation capacity of at least 3 GW, enough to provide power to about one million homes. The project is expected to come online by 2028.

- In September 2022, TotalEnergies finalized the acquisition of 50% of Clearway Energy Group (CEG), the 5th US renewable energy player, with Global Infrastructure Partners (GIP).

  In the frame of this transaction, GIP received $1.6 billion in cash and an interest of 50% minus one share in the TotalEnergies subsidiary that holds a 50.5% ownership in SunPower Corporation, leader in residential solar in the U.S.

  These transactions had an impact of $1,391 million on TotalEnergies' net income, TotalEnergies' share, and as of September 30, 2022, TotalEnergies' interests in Clearway Energy Group (CEG) and in TotalEnergies' subsidiary that holds a 50.5% ownership in SunPower are accounted for using the equity method. This impact is treated as an adjustment item.

### ➢Exploration & Production

- In January 2022, TotalEnergies has decided to initiate the contractual process of withdrawing from the Yadana field and from MGTC in Myanmar, both as operator and as shareholder, without any financial compensation for TotalEnergies.

  As a result, TotalEnergies registered an impairment of assets of $(201) million in operating income and of $(305) million in net income TotalEnergies' share in the financial statements as of December 31, 2021.

  This withdrawal became effective on July 20, 2022.

- In February 2022, TotalEnergies announced its decision not to sanction and so to withdraw from the North Platte deepwater project in the US Gulf of Mexico.

  The decision not to continue with the project was taken as TotalEnergies has better opportunities of allocation of its capital within its global portfolio.

  An impairment of the project's assets has been recorded in the consolidated financial statements of the first quarter of 2022, for an amount of $(957) million in net income, TotalEnergies' share.

- In April 2022, TotalEnergies finalized the acquisition of the Atapu and Sepia pre-salt oil fields offered by Brazil's National Agency of Petroleum, Natural Gas and Biofuels (ANP) in the Transfer of Rights (ToR) Surplus bidding round, that took place in December 2021.

  The details of the acquisition are presented in Note 2.2 to the consolidated financial statements.

- TotalEnergies holds a 19.4% stake in the company Novatek, a stake that it cannot sell given the prevailing shareholders' agreements, as it is forbidden for TotalEnergies to sell any asset to one of Novatek's main shareholders who is under sanction.

  In view of the European sanctions in force since the beginning of the war, the two directors representing TotalEnergies on the board of directors of Novatek are led to abstain from voting in meetings of the board of directors of this company, in particular on financial matters. They are therefore no longer in a position to fully carry out their duties on the board which might become an issue for the governance of this company.

  Under these circumstances, on December 9, 2022, the Board of Directors of TotalEnergies has decided to withdraw the representatives of the Company from the Board of PAO Novatek with immediate effect.

  As a result, at the end of 2022, the criteria for significant influence no longer being met under IAS 28 "Investments in Associates and Joint Ventures", TotalEnergies' 19.4% stake in Novatek is no longer accounted for under the equity method in the Company's consolidated financial statements.

## 2.2 Major business combinations

**Accounting principles**

In accordance with IFRS 3 "Business combinations", TotalEnergies is assessing the fair value of identifiable acquired assets, liabilities and contingent liabilities on the basis of available information. This assessment will be finalised within 12 months following the acquisition date.

➢ Exploration & Production

- Transfer of rights in the Atapu and Sepia fields in Brazil

  On April 26, 2022, Petrobras transferred to TotalEnergies 22.5% of the rights of the pre-salt Atapu oil field. Production started in 2020 and has reached a plateau of 160,000 barrels per day with a first Floating, Production, Storage and Offloading unit (FPSO). A second FPSO is planned to be sanctioned, which would increase the overall oil production of the field to around 350,000 b/d.

On April 27, 2022, Petrobras also transferred to TotalEnergies 28% of the rights of the pre-salt Sepia oil field. Production started in 2021 and is targeting a plateau of 180,000 barrels per day with a first Floating, Production, Storage and Offloading unit (FPSO). A second FPSO is planned to be sanctioned, which would increase the overall oil production of the field to around 350,000 b/d.

The preliminary purchase price allocation is shown below:

| (M$) | At the acquisition date |
|---|---|
| Intangible assets | 543 |
| Tangible assets | 4,512 |
| Other assets and liabilities | (437) |
| Fair value of consideration | 4,618 |

## 2.3 Divestment projects

**Accounting principles**

Pursuant to IFRS 5 "Non-current assets held for sale and discontinued operations", assets and liabilities of affiliates that are held for sale are presented separately on the face of the balance sheet. Depreciation of assets ceases from the date of classification in “Non-current assets held for sale”.

As of December 31, 2022, there is no material divestment project recorded in “assets held for sale”.

In line with its low-carbon strategy, TotalEnergies announced in September 2022 its intention to exit the Canadian oil sands through a spin-off of its subsidiary TotalEnergies EP Canada in 2023. The spin-off is expected to be submitted to the vote of the Annual General Meeting of Shareholders in May 2023.

As of December 31, 2022, the subsidiary TotalEnergies EP Canada is not presented as an asset held for sale in the consolidated financial statements, as the transaction is notably subject to approval of TotalEnergies' shareholders in May 2023.

# Note 3 Business segment information

### Description of the business segments

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies and which is reviewed by the main operational decision-making body of TotalEnergies, namely the Executive Committee.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The organization of TotalEnergies’ activities is structured around the four following segments:

- An Integrated Gas, Renewables & Power segment comprising integrated gas (including LNG) and low carbon electricity businesses. It includes the upstream and midstream LNG activity;
- An Exploration & Production segment. Starting September 2021, it notably includes the carbon sink activity (carbon storage and nature-based solutions) that was previously reported in the Integrated Gas, Renewables & Power segment. Business segment information relating to fiscal year 2020 has not been restated due to the non-material impact of this change;
- A Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also includes the activities of oil Supply, Trading and marine Shipping;
- A Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products;

In addition, the Corporate segment includes holdings operating and financial activities.

### Definition of the indicators

#### (i) Operating income (measure used to evaluate operating performance)

Revenue from sales after deducting cost of goods sold and inventory variations, other operating expenses, exploration expenses and depreciation, depletion, and impairment of tangible assets and mineral interests.

Operating income excludes the amortization of intangible assets other than mineral interests, currency translation adjustments and gains or losses on the disposal of assets.

#### (ii) Net operating income (measure used to evaluate the return on capital employed)

Operating income after taking into account the amortization of intangible assets other than mineral interests, currency translation adjustments, gains or losses on the disposal of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, income from equity accounted for affiliates, capitalized interest expenses…), and after income taxes applicable to the above.

The only income and expense not included in net operating income but included in net income TotalEnergies share are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt) and non-controlling interests.

#### (iii) Adjusted income

Operating income, net operating income, or net income excluding the effect of adjustment items described below.

### (iv) Capital employed

Non-current assets and working capital, at replacement cost, net of deferred income taxes and non-current liabilities.

### (v) ROACE (Return on Average Capital Employed)

Ratio of adjusted net operating income to average capital employed between the beginning and the end of the period.

Performance indicators excluding the adjustment items, such as adjusted incomes and ROACE are meant to facilitate the analysis of the financial performance and the comparison of income between periods.

## Adjustment items

Adjustment items include:

### (i) Special items

Due to their unusual nature or particular significance, certain transactions qualified as “special items” are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred within prior years or are likely to occur again within the coming years.

### (ii) The inventory valuation effect

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments’ performance and facilitate the comparability of the segments’ performance with those of its main competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost methods.

### (iii) Effect of changes in fair value

The effect of changes in fair value presented as adjustment items reflects for certain transactions differences between the internal measure of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TotalEnergies, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in TotalEnergies' internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items and the effect of changes in fair value.

## A) Information by business segment

| For the year ended December 31, 2022 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 48,753 | 9,942 | 121,618 | 100,661 | 25 | — | 280,999 |
| Intersegment sales | 7,000 | 55,190 | 45,857 | 1,433 | 248 | (109,728) | — |
| Excise taxes | — | — | (737) | (16,952) | — | — | (17,689) |
| **Revenues from sales** | **55,753** | **65,132** | **166,738** | **85,142** | **273** | **(109,728)** | **263,310** |
| Operating expenses | (45,771) | (24,521) | (156,897) | (81,746) | (1,329) | 109,728 | (200,536) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (1,402) | (8,115) | (1,533) | (1,033) | (138) | — | (12,221) |
| **Operating income** | **8,580** | **32,496** | **8,308** | **2,363** | **(1,194)** | **—** | **50,553** |
| Net income (loss) from equity affiliates and other items | 2,766 | (9,943) | 885 | (20) | 288 | — | (6,024) |
| Tax on net operating income | (1,712) | (17,445) | (2,544) | (787) | 281 | — | (22,207) |
| **Net operating income** | **9,634** | **5,108** | **6,649** | **1,556** | **(625)** | **—** | **22,322** |
| Net cost of net debt | | | | | | | (1,278) |
| Non-controlling interests | | | | | | | (518) |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **20,526** |

| For the year ended December 31, 2022 (adjustments)[(a)] (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 104 | — | — | — | — | — | 104 |
| Intersegment sales | — | — | — | — | — | — | — |
| Excise taxes | — | — | — | — | — | — | — |
| **Revenues from sales** | **104** | **—** | **—** | **—** | **—** | **—** | **104** |
| Operating expenses | 1,087 | (985) | 130 | 200 | (600) | — | (168) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (122) | 298 | — | (72) | (9) | — | 95 |
| **Operating income[(b)]** | **1,069** | **(687)** | **130** | **128** | **(609)** | **—** | **31** |
| Net income (loss) from equity affiliates and other items | (3,490) | (10,925) | (32) | (23) | 106 | — | (14,364) |
| Tax on net operating income | (89) | (759) | (751) | (99) | 141 | — | (1,557) |
| **Net operating income[(b)]** | **(2,510)** | **(12,371)** | **(653)** | **6** | **(362)** | **—** | **(15,890)** |
| Net cost of net debt | | | | | | | 277 |
| Non-controlling interests | | | | | | | (58) |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **(15,671)** |

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
(b) Of which inventory valuation effect

| | | | | | |
|---|---|---|---|---|---|
| On operating income | — | — | 239 | 261 | — |
| On net operating income | — | — | 336 | 194 | — |

| For the year ended December 31, 2022 (adjusted) (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 48,649 | 9,942 | 121,618 | 100,661 | 25 | — | 280,895 |
| Intersegment sales | 7,000 | 55,190 | 45,857 | 1,433 | 248 | (109,728) | — |
| Excise taxes | — | — | (737) | (16,952) | — | — | (17,689) |
| **Revenues from sales** | **55,649** | **65,132** | **166,738** | **85,142** | **273** | **(109,728)** | **263,206** |
| Operating expenses | (46,858) | (23,536) | (157,027) | (81,946) | (729) | 109,728 | (200,368) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (1,280) | (8,413) | (1,533) | (961) | (129) | — | (12,316) |
| **Adjusted operating income** | **7,511** | **33,183** | **8,178** | **2,235** | **(585)** | **—** | **50,522** |
| Net income (loss) from equity affiliates and other items | 6,256 | 982 | 917 | 3 | 182 | — | 8,340 |
| Tax on net operating income | (1,623) | (16,686) | (1,793) | (688) | 140 | — | (20,650) |
| **Adjusted net operating income** | **12,144** | **17,479** | **7,302** | **1,550** | **(263)** | **—** | **38,212** |
| Net cost of net debt | | | | | | | (1,555) |
| Non-controlling interests | | | | | | | (460) |
| **ADJUSTED NET INCOME - TotalEnergies SHARE** | | | | | | | **36,197** |

| For the year ended December 31, 2022 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| Total expenditures | 6,475 | 10,646 | 1,391 | 1,186 | 104 | — | 19,802 |
| Total divestments | 3,427 | 807 | 214 | 222 | 16 | — | 4,686 |
| Cash flow from operating activities | 9,670 | 27,654 | 8,663 | 3,124 | (1,744) | — | 47,367 |
| **Balance sheet as of December 31, 2022** | | | | | | | |
| Property, plant and equipment, intangible assets, net | 30,885 | 87,833 | 11,525 | 8,120 | 669 | — | 139,032 |
| Investments & loans in equity affiliates | 20,869 | 2,138 | 4,431 | 451 | — | — | 27,889 |
| Other non-current assets | 3,669 | 3,069 | 570 | 1,050 | 130 | — | 8,488 |
| Working capital | (432) | (2,831) | (3,293) | (288) | (3,393) | — | (10,237) |
| Provisions and other non-current liabilities | (5,250) | (24,633) | (3,760) | (1,303) | 694 | — | (34,252) |
| Assets and liabilities classified as held for sale | 155 | 208 | — | — | - | — | 363 |
| **Capital Employed (Balance sheet)** | **49,896** | **65,784** | **9,473** | **8,030** | **(1,900)** | **—** | **131,283** |
| Less inventory valuation effect | — | — | (2,035) | (437) | — | — | (2,472) |
| **CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)** | **49,896** | **65,784** | **7,438** | **7,593** | **(1,900)** | **—** | **128,811** |
| **ROACE as a percentage** | **23 %** | **25 %** | **94 %** | **19 %** | | | **28 %** |

| For the year ended December 31, 2021 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 30,704 | 7,246 | 87,600 | 80,288 | 25 | — | 205,863 |
| Intersegment sales | 4,260 | 34,896 | 27,637 | 451 | 254 | (67,498) | — |
| Excise taxes | — | — | (1,108) | (20,121) | — | — | (21,229) |
| **Revenues from sales** | **34,964** | **42,142** | **114,129** | **60,618** | **279** | **(67,498)** | **184,634** |
| Operating expenses | (29,964) | (16,722) | (108,982) | (57,159) | (927) | 67,498 | (146,256) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (1,650) | (9,110) | (1,583) | (1,100) | (113) | — | (13,556) |
| **Operating income** | **3,350** | **16,310** | **3,564** | **2,359** | **(761)** | **—** | **24,822** |
| Net income (loss) from equity affiliates and other items | 2,745 | (760) | 518 | 108 | 45 | — | 2,656 |
| Tax on net operating income | (602) | (7,506) | (1,068) | (738) | 152 | — | (9,762) |
| **Net operating income** | **5,493** | **8,044** | **3,014** | **1,729** | **(564)** | **—** | **17,716** |
| Net cost of net debt | | | | | | | (1,350) |
| Non-controlling interests | | | | | | | (334) |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **16,032** |

| For the year ended December 31, 2021 (adjustments)[(a)] (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | (44) | — | — | — | — | — | (44) |
| Intersegment sales | — | — | — | — | — | — | — |
| Excise taxes | — | — | — | — | — | — | — |
| **Revenues from sales** | **(44)** | **—** | **—** | **—** | **—** | **—** | **(44)** |
| Operating expenses | (271) | (187) | 1,470 | 278 | — | — | 1,290 |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (342) | (418) | (25) | (36) | — | — | (821) |
| **Operating income[(b)]** | **(657)** | **(605)** | **1,445** | **242** | **—** | **—** | **425** |
| Net income (loss) from equity affiliates and other items | (215) | (1,839) | 56 | (61) | (54) | — | (2,113) |
| Tax on net operating income | 122 | 49 | (396) | (70) | (67) | — | (362) |
| **Net operating income[(b)]** | **(750)** | **(2,395)** | **1,105** | **111** | **(121)** | **—** | **(2,050)** |
| Net cost of net debt | | | | | | | 25 |
| Non-controlling interests | | | | | | | (3) |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **(2,028)** |

[(a)] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
[(b)] Of which inventory valuation effect

| | | | | | |
|---|---|---|---|---|---|
| On operating income | — | — | 1,481 | 315 | — |
| On net operating income | — | — | 1,296 | 236 | — |

| For the year ended December 31, 2021 (adjusted) (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 30,748 | 7,246 | 87,600 | 80,288 | 25 | — | 205,907 |
| Intersegment sales | 4,260 | 34,896 | 27,637 | 451 | 254 | (67,498) | — |
| Excise taxes | — | — | (1,108) | (20,121) | — | — | (21,229) |
| **Revenues from sales** | **35,008** | **42,142** | **114,129** | **60,618** | **279** | **(67,498)** | **184,678** |
| Operating expenses | (29,693) | (16,535) | (110,452) | (57,437) | (927) | 67,498 | (147,546) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (1,308) | (8,692) | (1,558) | (1,064) | (113) | — | (12,735) |
| **Adjusted operating income** | **4,007** | **16,915** | **2,119** | **2,117** | **(761)** | **—** | **24,397** |
| Net income (loss) from equity affiliates and other items | 2,960 | 1,079 | 462 | 169 | 99 | — | 4,769 |
| Tax on net operating income | (724) | (7,555) | (672) | (668) | 219 | — | (9,400) |
| **Adjusted net operating income** | **6,243** | **10,439** | **1,909** | **1,618** | **(443)** | **—** | **19,766** |
| Net cost of net debt | | | | | | | (1,375) |
| Non-controlling interests | | | | | | | (331) |
| **AJUSTED NET INCOME - TotalEnergies SHARE** | | | | | | | **18,060** |

| For the year ended December 31, 2021 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| Total expenditures | 6,341 | 7,276 | 1,638 | 1,242 | 92 | — | 16,589 |
| Total divestments | 1,350 | 894 | 348 | 319 | 22 | — | 2,933 |
| Cash flow from operating activities | 827 | 22,009 | 6,473 | 2,333 | (1,232) | — | 30,410 |
| **Balance sheet as of December 31, 2021** | | | | | | | |
| Property, plant and equipment, intangible assets, net | 31,525 | 86,418 | 11,884 | 8,578 | 638 | — | 139,043 |
| Investments & loans in equity affiliates | 20,501 | 6,337 | 3,729 | 486 | — | — | 31,053 |
| Other non-current assets | 3,359 | 4,441 | 608 | 1,105 | 309 | — | 9,822 |
| Working capital | 5,058 | (1,216) | (2,558) | 378 | (4,220) | — | (2,558) |
| Provisions and other non-current liabilities | (4,495) | (24,613) | (3,840) | (1,478) | 581 | — | (33,845) |
| Assets and liabilities classified as held for sale | 30 | 308 | — | — | — | — | 338 |
| **Capital Employed (Balance sheet)** | **55,978** | **71,675** | **9,823** | **9,069** | **(2,692)** | **—** | **143,853** |
| Less inventory valuation effect | — | — | (1,754) | (286) | — | — | (2,040) |
| **CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)** | **55,978** | **71,675** | **8,069** | **8,783** | **(2,692)** | **—** | **141,813** |
| **ROACE as a percentage** | **12 %** | **14 %** | **20 %** | **18 %** | | | **14 %** |

| For the year ended December 31, 2020 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 15,629 | 4,973 | 56,615 | 63,451 | 17 | — | 140,685 |
| Intersegment sales | 2,003 | 18,483 | 17,378 | 357 | 223 | (38,444) | — |
| Excise taxes | — | — | (2,405) | (18,576) | — | — | (20,981) |
| **Revenues from sales** | **17,632** | **23,456** | **71,588** | **45,232** | **240** | **(38,444)** | **119,704** |
| Operating expenses | (15,847) | (11,972) | (70,524) | (42,807) | (1,049) | 38,444 | (103,755) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (2,312) | (16,998) | (1,878) | (984) | (92) | — | (22,264) |
| **Operating income** | **(527)** | **(5,514)** | **(814)** | **1,441** | **(901)** | **—** | **(6,315)** |
| Net income (loss) from equity affiliates and other items | 794 | 697 | (393) | 37 | 272 | — | 1,407 |
| Tax on net operating income | 71 | (208) | 59 | (515) | (67) | — | (660) |
| **Net operating income** | **338** | **(5,025)** | **(1,148)** | **963** | **(696)** | **—** | **(5,568)** |
| Net cost of net debt | | | | | | | (1,768) |
| Non-controlling interests | | | | | | | 94 |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **(7,242)** |

| For the year ended December 31, 2020 (adjustments)[a] (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 20 | — | — | — | — | — | 20 |
| Intersegment sales | — | — | — | — | — | — | — |
| Excise taxes | — | — | — | — | — | — | — |
| **Revenues from sales** | **20** | **—** | **—** | **—** | **—** | **—** | **20** |
| Operating expenses | (423) | (137) | (1,552) | (330) | (60) | — | (2,502) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (953) | (7,693) | (306) | — | — | — | (8,952) |
| **Operating income[b]** | **(1,356)** | **(7,830)** | **(1,858)** | **(330)** | **(60)** | **—** | **(11,434)** |
| Net income (loss) from equity affiliates and other items | (382) | 54 | (677) | (24) | 107 | — | (922) |
| Tax on net operating income | 298 | 388 | 348 | 93 | (145) | — | 982 |
| **Net operating income[b]** | **(1,440)** | **(7,388)** | **(2,187)** | **(261)** | **(98)** | **—** | **(11,374)** |
| Net cost of net debt | | | | | | | (29) |
| Non-controlling interests | | | | | | | 102 |
| **NET INCOME - TotalEnergies SHARE** | | | | | | | **(11,301)** |

[a] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.
[b] Of which inventory valuation effect

| | | | | | |
|---|---|---|---|---|---|
| On operating income | — | — | (1,244) | (196) | — |
| On net operating income | — | — | (1,165) | (137) | — |

| For the year ended December 31, 2020 (adjusted) (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| External sales | 15,609 | 4,973 | 56,615 | 63,451 | 17 | – | 140,665 |
| Intersegment sales | 2,003 | 18,483 | 17,378 | 357 | 223 | (38,444) | – |
| Excise taxes | – | – | (2,405) | (18,576) | – | – | (20,981) |
| **Revenues from sales** | **17,612** | **23,456** | **71,588** | **45,232** | **240** | **(38,444)** | **119,684** |
| Operating expenses | (15,424) | (11,835) | (68,972) | (42,477) | (989) | 38,444 | (101,253) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (1,359) | (9,305) | (1,572) | (984) | (92) | – | (13,312) |
| **Adjusted operating income** | **829** | **2,316** | **1,044** | **1,771** | **(841)** | **–** | **5,119** |
| Net income (loss) from equity affiliates and other items | 1,176 | 643 | 284 | 61 | 165 | – | 2,329 |
| Tax on net operating income | (227) | (596) | (289) | (608) | 78 | – | (1,642) |
| **Adjusted net operating income** | **1,778** | **2,363** | **1,039** | **1,224** | **(598)** | **–** | **5,806** |
| Net cost of net debt | | | | | | | (1,739) |
| Non-controlling interests | | | | | | | (8) |
| **ADJUSTED NET INCOME - TotalEnergies SHARE** | | | | | | | **4,059** |

| For the year ended December 31, 2020 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Intercompany | Total |
|---|---|---|---|---|---|---|---|
| Total expenditures | 6,230 | 6,782 | 1,325 | 1,052 | 145 | — | 15,534 |
| Total divestments | 1,152 | 819 | 149 | 158 | 177 | — | 2,455 |
| Cash flow from operating activities | 2,129 | 9,922 | 2,438 | 2,101 | (1,787) | — | 14,803 |
| **Balance sheet as of December 31, 2020** | | | | | | | |
| Property, plant and equipment, intangible assets, net | 30,704 | 89,207 | 12,486 | 8,734 | 732 | — | 141,863 |
| Investments & loans in equity affiliates | 16,455 | 7,328 | 3,638 | 555 | — | — | 27,976 |
| Other non-current assets | 3,647 | 5,093 | 791 | 1,260 | 1,042 | — | 11,833 |
| Working capital | (1,004) | 1,968 | (264) | (43) | (4,470) | — | (3,813) |
| Provisions and other non-current liabilities | (4,566) | (24,909) | (4,658) | (1,641) | 606 | — | (35,168) |
| Assets and liabilities classified as held for sale | 375 | 241 | (83) | — | — | — | 533 |
| **Capital Employed (Balance sheet)** | **45,611** | **78,928** | **11,910** | **8,865** | **(2,090)** | **—** | **143,224** |
| Less inventory valuation effect | — | — | (535) | (72) | — | — | (607) |
| **CAPITAL EMPLOYED (BUSINESS SEGMENT INFORMATION)** | **45,611** | **78,928** | **11,375** | **8,793** | **(2,090)** | **—** | **142,617** |
| **ROACE as a percentage** | **4 %** | **3 %** | **9 %** | **14 %** | | | **4 %** |

## B) Reconciliation of the information by business segment with Consolidated Financial Statements

The table below presents the impact of adjustment items on the consolidated statement of income:

| For the year ended December 31, 2022 (M$) | Adjusted | Adjustments[a] | Consolidated statement of income |
|---|---|---|---|
| **Sales** | **280,895** | **104** | **280,999** |
| Excise taxes | (17,689) | — | (17,689) |
| Revenues from sales | 263,206 | 104 | 263,310 |
| Purchases, net of inventory variation | (171,049) | 1,601 | (169,448) |
| Other operating expenses | (28,745) | (1,044) | (29,789) |
| Exploration costs | (574) | (725) | (1,299) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (12,316) | 95 | (12,221) |
| Other income | 1,349 | 1,500 | 2,849 |
| Other expense | (1,542) | (5,802) | (7,344) |
| Financial interest on debt | (2,386) | — | (2,386) |
| Financial income and expense from cash & cash equivalents | 746 | 397 | 1,143 |
| Cost of net debt | (1,640) | 397 | (1,243) |
| Other financial income | 812 | 84 | 896 |
| Other financial expense | (533) | — | (533) |
| Net income (loss) from equity affiliates | 8,254 | (10,146) | (1,892) |
| Income taxes | (20,565) | (1,677) | (22,242) |
| **CONSOLIDATED NET INCOME** | **36,657** | **(15,613)** | **21,044** |
| TotalEnergies share | 36,197 | (15,671) | 20,526 |
| Non-controlling interests | 460 | 58 | 518 |

[a] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

| For the year ended December 31, 2021 (M$) | Adjusted | Adjustments[a] | Consolidated statement of income |
|---|---|---|---|
| **Sales** | **205,907** | **(44)** | **205,863** |
| Excise taxes | (21,229) | – | (21,229) |
| Revenues from sales | 184,678 | (44) | 184,634 |
| Purchases, net of inventory variation | (120,160) | 1,538 | (118,622) |
| Other operating expenses | (26,754) | (140) | (26,894) |
| Exploration costs | (632) | (108) | (740) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (12,735) | (821) | (13,556) |
| Other income | 1,300 | 12 | 1,312 |
| Other expense | (944) | (1,373) | (2,317) |
| Financial interest on debt | (1,904) | – | (1,904) |
| Financial income and expense from cash & cash equivalents | 340 | 39 | 379 |
| Cost of net debt | (1,564) | 39 | (1,525) |
| Other financial income | 762 | – | 762 |
| Other financial expense | (539) | – | (539) |
| Net income (loss) from equity affiliates | 4,190 | (752) | 3,438 |
| Income taxes | (9,211) | (376) | (9,587) |
| **CONSOLIDATED NET INCOME** | **18,391** | **(2,025)** | **16,366** |
| TotalEnergies share | 18,060 | (2,028) | 16,032 |
| Non-controlling interests | 331 | 3 | 334 |

[a] Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

| For the year ended December 31, 2020<br>(M$) | Adjusted | Adjustments[a] | Consolidated statement of income |
|---|---|---|---|
| **Sales** | **140,665** | **20** | **140,685** |
| Excise taxes | (20,981) | – | (20,981) |
| Revenues from sales | 119,684 | 20 | 119,704 |
| Purchases, net of inventory variation | (75,672) | (1,814) | (77,486) |
| Other operating expenses | (24,850) | (688) | (25,538) |
| Exploration costs | (731) | – | (731) |
| Depreciation, depletion and impairment of tangible assets and mineral interests | (13,312) | (8,952) | (22,264) |
| Other income | 1,405 | 832 | 2,237 |
| Other expense | (689) | (817) | (1,506) |
| Financial interest on debt | (2,140) | (7) | (2,147) |
| Financial income and expense from cash & cash equivalents | 68 | (31) | 37 |
| Cost of net debt | (2,072) | (38) | (2,110) |
| Other financial income | 914 | – | 914 |
| Other financial expense | (689) | (1) | (690) |
| Net income (loss) from equity affiliates | 1,388 | (936) | 452 |
| Income taxes | (1,309) | 991 | (318) |
| **CONSOLIDATED NET INCOME** | **4,067** | **(11,403)** | **(7,336)** |
| TotalEnergies share | 4,059 | (11,301) | (7,242) |
| Non-controlling interests | 8 | (102) | (94) |

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

## C) Additional information on adjustment items

The main adjustment items for 2022 are the following:

1) An "Inventory valuation effect" amounting to $500 million in operating income and $501 million in net income TotalEnergies' share for the Refining & Chemicals and Marketing & Services segments;
2) The main adjustment items of the period are the following exceptional impairments and provisions related to Russia:
   - In the first quarter, an impairment of $(4,095) million in net income, concerning notably Arctic LNG 2.
   - In the second quarter, an impairment of $(3,513) million in net income mainly related to the potential impact of international sanctions on the value of the stake in Novatek and in the third quarter, an additional impairment of $(3,056) million in net income.
   - In the fourth quarter, an impairment of $(4,092) million in net income following discontinuation of equity accounting of Novatek.

   In total, the impact of impairments and provisions recorded in 2022 in respect TotalEnergies's assets in Russia amounts to $(14,756) million in net income, TotalEnergies share.
3) The adjustment items also include a $1,391 million gain on the partial disposal of TotalEnergies' interest in its subsidiary which owns 50.5% of Sunpower and on the revaluation of its retained interest which is accounted for using the equity method.

The detail of the adjustment items is presented in the table below.

### Adjustments to operating income

| For the year ended December 31, 2022<br>(M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | — | – | 239 | 261 | – | 500 |
| Effect of changes in fair value | 1,248 | – | – | – | – | 1,248 |
| Restructuring charges | (25) | – | – | (5) | – | (30) |
| Asset impairment and provisions charges | (126) | (588) | – | (98) | (9) | (821) |
| Gains (losses) on disposals of assets | – | – | – | – | – | – |
| Other items | (28) | (99) | (109) | (30) | (600) | (866) |
| **TOTAL** | **1,069** | **(687)** | **130** | **128** | **(609)** | **31** |

### Adjustments to net income, TotalEnergies share

| For the year ended December 31, 2022 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | – | – | 323 | 178 | – | 501 |
| Effect of changes in fair value | 1,138 | – | – | – | – | 1,138 |
| Restructuring charges | (28) | – | – | (14) | – | (42) |
| Asset impairment and provisions charges | (4,481) | (11,141) | – | (112) | (9) | (15,743) |
| Gains (losses) on disposals of assets | 1,391 | – | – | – | – | 1,391 |
| Other items | (576) | (1,093) | (990) | (60) | (197) | (2,916) |
| **TOTAL** | **(2,556)** | **(12,234)** | **(667)** | **(8)** | **(206)** | **(15,671)** |

### Adjustments to operating income

| For the year ended December 31, 2021 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | – | – | 1,481 | 315 | – | 1,796 |
| Effect of changes in fair value | (217) | – | – | – | – | (217) |
| Restructuring charges | (17) | (59) | (10) | – | – | (86) |
| Asset impairment and provisions charges | (342) | (356) | (25) | (36) | – | (759) |
| Gains (losses) on disposals of assets | – | (170) | — | — | – | (170) |
| Other items | (81) | (20) | (1) | (37) | – | (139) |
| **TOTAL** | **(657)** | **(605)** | **1,445** | **242** | **–** | **425** |

### Adjustments to net income, TotalEnergies share

| For the year ended December 31, 2021 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | – | – | 1,277 | 218 | – | 1,495 |
| Effect of changes in fair value | (194) | – | – | – | – | (194) |
| Restructuring charges | (17) | (75) | (118) | (44) | (54) | (308) |
| Asset impairment and provisions charges | (332) | (500) | (42) | (36) | – | (910) |
| Gains (losses) on disposals of assets[(a)] | – | (1,726) | – | – | – | (1,726) |
| Other items | (196) | (51) | (31) | (40) | (67) | (385) |
| **TOTAL** | **(739)** | **(2,352)** | **1,086** | **98** | **(121)** | **(2,028)** |

(a) Of which $(1,379) million relate to the impact of the TotalEnergies' interest sale of Petrocedeño to PDVSA.

### Adjustments to operating income

| For the year ended December 31, 2020 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | – | – | (1,244) | (196) | – | (1,440) |
| Effect of changes in fair value | 20 | – | – | – | – | 20 |
| Restructuring charges | (39) | (35) | (30) | – | – | (104) |
| Asset impairment and provisions charges | (953) | (7,693) | (306) | – | – | (8,952) |
| Other items | (384) | (102) | (278) | (134) | (60) | (958) |
| **TOTAL** | **(1,356)** | **(7,830)** | **(1,858)** | **(330)** | **(60)** | **(11,434)** |

### Adjustments to net income, TotalEnergies share

| For the year ended December 31, 2020 (M$) | Integrated Gas, Renewables & Power | Exploration & Production | Refining & Chemicals | Marketing & Services | Corporate | Total |
|---|---|---|---|---|---|---|
| Inventory valuation effect | – | – | (1,160) | (120) | — | (1,280) |
| Effect of changes in fair value | 23 | – | – | – | – | 23 |
| Restructuring charges | (43) | (29) | (292) | – | – | (364) |
| Asset impairment and provisions charges | (829) | (7,328) | (306) | (2) | – | (8,465) |
| Gains (losses) on disposals of assets | — | — | – | – | 104 | 104 |
| Other items | (566) | — | (423) | (106) | (224) | (1,319) |
| **TOTAL** | **(1,415)** | **(7,357)** | **(2,181)** | **(228)** | **(120)** | **(11,301)** |

## D) Asset impairment

**Accounting principles**

The recoverable amounts of intangible assets and property, plant and equipment are tested for impairment as soon as any indication of impairment exists. This test is performed at least annually for goodwill.

The recoverable amount is the higher of the fair value (less costs to sell) or the value in use.

Assets are grouped into cash-generating units (or CGUs) and tested. A CGU is a homogeneous set of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

The value in use of a CGU is determined by reference to the discounted expected future cash flows of these assets, based upon Management's expectation of future economic and operating conditions. When this value is less than the carrying amount of the CGU, an impairment loss is recorded. This loss is allocated first to goodwill with a corresponding amount in "Other expenses". Any further losses are then allocated to property, plant and mineral interests with a corresponding amount in "Depreciation, depletion and impairment of tangible assets and mineral interests" and to other intangible assets with a corresponding amount in "Other expenses".

Impairment losses recognized in prior periods can be reversed up to the original carrying amount, had the impairment loss not been recognized. Impairment losses recognized on goodwill cannot be reversed.

Investments in associates or joint ventures are tested for impairment whenever indication of impairment exists. If any objective evidence of impairment exists, the carrying amount of the investment is compared with its recoverable amount, being the higher of its fair value less costs to sell and value in use. If the carrying amount exceeds the recoverable amount, an impairment loss is recorded in "Net income (loss) from equity affiliates".

For the financial year 2022, asset impairments were recorded for an amount of $(821) million in operating income and $(15,743) million in net income, TotalEnergies share. These impairments were qualified as adjustment items of the operating income and net income, TotalEnergies share.

Impairments relate to certain cash-generating units (CGUs) for which indicators of impairment have been identified, due to changes in operating conditions or the economic environment of the activities concerned.

**Principles for determining value in use of a CGU**

The principles applied are as follows:

- The future cash flows were determined using the assumptions included in the 2023 budget and in the long-term plan of the Company approved by the Executive Committee and the Board of Directors. These assumptions, in particular including operational costs, estimation of oil and gas reserves, future volumes produced and marketed, represent the best estimate from the Company Management of economic and technical conditions over the remaining life of the assets.
- The Company, notably relying on data on global energy demand from the “World Energy Outlook” issued by the IEA since 2016, and on its own supply and demand assessments, determines oil & gas prices scenarios based on assumptions about the evolution of core indicators of the Upstream activity (demand for hydrocarbons in different markets, investment forecasts, decline in production fields, changes in oil & gas reserves and supply by area and by nature of oil & gas products), of the Downstream activity (changes in refining capacity and demand for petroleum products) and by integrating “climate” challenges.
- These price scenarios, first prepared within the Strategy & Markets Division, are also reviewed with the Company segments which bring their own expertise. They also integrate studies issued by international agencies, banks and independent consultants. They are then approved by the Executive Committee and the Board of Directors.
- The IEA 2022 World Energy Outlook anticipates three scenarios that are key references for the Company: the STEPS (Stated Policies Scenario) and APS (Announced Pledges Scenario) for the short/mid-term, and the NZE (Net Zero Emissions by 2050) for the long-term.
- The STEPS only includes climate actions already implemented to date around the world and those under development. The APS also takes into account climate ambitions declared to date in the world, including the NDCs (Nationally Determined Contributions) and carbon neutrality ambitions. It is compatible with the Paris Agreement. The IEA's NZE is understood as the set of actions to be taken to be compatible with a 1.5°C scenario in 2050 (without overshooting). This normative scenario does not predict oil demand in the short and medium term, and therefore the price scenarios it proposes, particularly in the short and medium term, do not include a "realistic" evolution of demand. In fact, this scenario predicts that oil demand will fall by 20% between 2020 and 2030, whereas, according to the Company's projections and those of most energy companies and consultants, demand will stabilize between 2025 and 2030, before declining from 2030 onwards.
- Beyond the 2020-2030 decade, the oil price trajectory retained by the Company converges in the long term, to the price retained in 2050 by the IEA's NZE scenario, i.e $24.5$_{2022}$/b. The prices retained for gas, the transition fuel, stabilize between now and 2027 and until 2040 at lower levels than the current prices and converge towards the IEA's NZE scenario prices in 2050.

The oil price trajectories adopted by the Company are based on the following assumptions:

- Oil demand has experienced sustained growth after the Covid crisis as the global economic recovery generated strong tensions on energy prices from mid-2021 onwards, exacerbated in 2022 by the war in Ukraine. Despite the risks of recession in Europe in particular, global liquid demand in 2023 is expected to be higher than in 2019 pre-crisis, notably thanks to the end of lockdown measures in China allowing the restart of industrial activity. It should continue to grow until 2030, in a context of sustained growth in global energy demand. Indeed, population growth and rising living standards, particularly in emerging countries, should sustain oil consumption, despite the gradual electrification of transport and efficiency gains in combustion engines, mainly in developed countries. As for oil supply, it is marked by historic production cuts decided (and implemented) by OPEP+ members and by the difficulties encountered by some non-OPEP+ producers. In the US, while production in 2023 is expected to be slightly higher than in 2019, doubts remain about the capacity for further growth in shale oil in subsequent years. The Company maintains its analysis that the weakness of investment oil upstream since 2015, accentuated by the health and economic crisis of 2020 and the natural decline of fields currently in production, leads to a global supply-demand balance that will remain tight until 2030. Thus the Brent price scenario used to determine the value in use of the CGUs assumes a stable price of $\$70_{2022}$/b from 2023 to 2030. The developments observed at the end of 2022, in particular the resurgence of the Covid pandemic in China, could slow down the Chinese economic recovery, and therefore justify this price level from 2023.
- Beyond 2030, given technological developments, particularly in the transport sector, oil demand should have reached its peak and the selected price scenario decreases linearly to reach $\$50_{2022}$/b in 2040 and then $\$24.5_{2022}$/b in 2050, in line with the NZE scenario.

The average Brent prices over the period 2023-2050 thus stands at $\$53.9_{2022}$/b.

For natural gas, the transition fuel, the price trajectory adopted by the Company is based on the following assumptions:

- Natural gas demand in 2021 has exceeded its pre-crisis level with very strong tensions on prices in Europe and, by extension, in Asia through LNG prices, following the cuts in Russian pipe gas imports that began at the end of 2021 and continued in 2022 with the complete shutdown of the Nordstream. Global gas demand in 2022 is estimated to be almost at the level of 2021. The Company anticipates stable demand in 2023 with the recourse to American LNG to replace Russian gas in Europe, still in competition with Asia. The Company thus anticipates a return in 2023 to higher prices than before the crisis on the Asia, Europe and USA hubs, but not to the same levels as the highs reached in the third quarter of 2022. Thereafter, natural gas demand would be driven by the same fundamentals as oil (decrease in Europe but resistance in Asia-Pacific), plus its substitution for coal in power generation and by its role as a flexible and controllable source to mitigate the intermittent use and seasonality of renewable energies. The abundant global supply and the growth of liquefied natural gas would, however, limit the potential for higher gas prices. Beyond 2040, with the development of renewables including storage and hydrogen, gas demand is expected to stabilize.

In this context, the gas price level used to determine the value in use of the CGUs concerned is as follows:

- On the NBP quotation (Europe): $\$20_{2022}$/Mbtu in 2023, $\$17_{2022}$/Mbtu in 2024, $\$14_{2022}$/Mbtu in 2025, $\$11_{2022}$/Mbtu in 2026, then $\$8_{2022}$/Mbtu between 2027 and 2040.
- On the Henry Hub quotation (United States): $\$3_{2022}$/Mbtu between 2023 and 2040.
- On the DES Japan (Asia) quotation: $\$21_{2022}$/Mbtu in 2023, $\$18_{2022}$/Mbtu in 2024, $\$15_{2022}$/Mbtu in 2025, $\$12_{2022}$/Mbtu in 2026 , then $\$9_{2022}$/Mbtu between 2027 and 2040.

From 2040 onwards, the price trajectory converges towards the price retained in 2050 by the NZE scenario, i.e. $\$3.9_{2022}$/Mbtu for NBP, $\$1.8_{2022}$/Mbtu for Henry Hub and $\$5.2_{2022}$/Mbtu DES Japan (Asia).

The future operational costs were determined by taking into account the existing technologies, the fluctuation of prices for petroleum services in line with market developments and the internal cost reduction programs effectively implemented.

The determination of value in use also takes into account on all assets a minimum $CO_2$ cost of $100/t or the applicable price in a given country, if it is higher. Beyond 2028, the $CO_2$ price is inflated by 2% per year.

The future cash flows are estimated over a period consistent with the life of the assets of the CGUs. They are prepared post-tax and take into account specific risks related to the CGUs' assets. They are discounted using an 8% post-tax discount rate, this rate being the weighted-average cost of TotalEnergies capital estimated from historical market data. This rate was 7% in 2021 and 2020. The value in use calculated by discounting the above post-tax cash flows using an 8% post-tax discount rate is not materially different from the value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates generally range from 7% to 14%.

**Impairment losses recognized by segment**

Impairments recognized in 2022 have an overall impact of $(15,743) million in net income, TotalEnergies share, and mainly relate to the Company's assets in Russia, for an amount of $(14,756) million.

The CGUs of the Exploration & Production segment are defined as oil and gas fields or groups of oil and gas fields with industrial assets enabling the production, treatment and evacuation of the oil and gas. For the financial year 2022, the Company recorded impairments of assets over CGUs of the Exploration & Production segment for $(588) million in operating income and $(11,141) million in net income, TotalEnergies share.

Impairments recognized in 2022 mainly relate to the Company's assets in Russia for an amount of $(10,527) million in net income TotalEnergies share, mainly relating to the investment in Novatek.

They also take into account the impairment of the North Platte project assets for $(957) million in net income, TotalEnergies share, following the Company's decision announced in February not to sanction and so to withdraw from this deepwater project in the Gulf of Mexico.

The impairments recognized also include a reversal of impairment on the Company's assets in Canada. In the context of the project to spin-off the Company's upstream activities in Canada, an impairment test was carried out, and the resulting value in use led to a reversal of impairment of $728 million in net income, TotalEnergies share.

As for sensitivities of the Exploration & Production segment:

- a decrease by 1 point in the discount rate would have a positive impact of $0.3 billion in operating income and $0.2 billion in net income, TotalEnergies share;
- an increase by 1 point in the discount rate would have an additional negative impact of approximately $0.5 billion in operating income and $0.5 billion in net income, TotalEnergies share;

- a decrease of 10% of the oil and gas prices over the duration of the plan (thus an average oil price of around $$48_{2022}$/b) would have an additional negative impact of approximately $1.5 billion in operating income and $1.2 billion in net income, TotalEnergies share.
- a decrease of 20% of the oil and gas prices over the duration of the plan (thus an average oil price of around $$43_{2022}$/b) would have an additional negative impact of approximately $5.3 billion in operating income and $3.9 billion in net income, TotalEnergies share.
- Taking into account a $CO_2$ cost of $200/t, inflated by 2%/year from 2028 onwards for all assets would have an additional negative impact of approximately $1.6 billion on operating income and $1.2 billion on net income, TotalEnergies share.

The CGUs of the Integrated Gas, Renewables & Power segment are subsidiaries or groups of subsidiaries organized by activity or geographical area, and by fields or groups of fields for upstream LNG activities. For the financial year 2022, the Company recorded impairments on CGUs in the Integrated Gas, Renewables & Power segment for $(126) million in operating income and $(4,481) million in net income, TotalEnergies share. Impairments recognized relate to the Company's assets in Russia for an amount of $(4,142) million in net income, TotalEnergies share, notably concerning Arctic LNG 2.

As for sensitivities of the Integrated Gas, Renewables & Power segment:

- a decrease by 1 point in the discount rate would have a positive impact of $0.1 billion in operating income and close to zero in net income, TotalEnergies share;
- an increase by 1 point in the discount rate would have an additional negative impact of approximately $1.3 billion in operating income and $1.1 billion in net income, TotalEnergies share;
- a decrease of 10% of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $2.0 billion in operating income and $1.6 billion in net income, TotalEnergies share.
- a decrease of 20% of the oil and gas prices over the duration of the plan would have an additional negative impact of approximately $5.0 billion in operating income and $4.2 billion in net income, TotalEnergies share.
- Taking into account a $CO_2$ cost of $200/t inflated by 2%/year from 2028 onwards for all assets would have an additional negative impact of approximately $0.9 billion on operating income and $0.8 billion in net income, TotalEnergies share.

The CGUs of the Refining & Chemicals segment are defined as legal entities with operational activities for refining and petrochemicals activities. Future cash flows are based on the gross contribution margin (calculated on the basis of net sales after purchases of crude oil and refined products, the effect of inventory valuation and variable costs). The other activities of the segment are global divisions, each division gathering a set of businesses or homogeneous products for strategic, commercial and industrial plans. Future cash flows are determined from the specific margins of these activities, unrelated to the price of oil.

For the financial year 2022, the Company has not recorded impairments on CGUs in the Refining & Chemicals segment.

As for sensitivities of the Refining & Chemicals segment:

- an increase by 1 point in the discount rate would have an impact close to zero in operating income and in net income, TotalEnergies share;
- a decrease of 10% of the refining margins would have a negative impact of approximately $0.6 billion in operating income and $0.6 billion in net income, TotalEnergies share.

The most sensitive assets would be the refining assets in France.

The CGUs of the Marketing & Services segment are subsidiaries or groups of subsidiaries organized by geographical area. For the financial year 2022, the Company recorded impairments on the CGUs of the Marketing & Services segment for $(98) million in operating income and $(112) million in net income, TotalEnergies share. Impairments recognized relate to the Company's assets in Russia for an amount of $(87) million in net income, TotalEnergies share.

**Impairments recognized in years 2021 and 2020**

For the financial year 2021, the Company recorded impairments in Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments for an amount of $(759) million in operating income and $(910) million in net income, TotalEnergies share. These impairments were qualified as adjustments items of the operating income and net income, TotalEnergies share.

For the financial year 2020, asset impairments were recorded in the Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments with an impact of $(3,492) million in operating income and $(2,991) million in net income, TotalEnergies share.

In addition, in 2020, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Company had reviewed its oil assets that could be qualified as stranded, meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects identified in this category were the Canadian oil sands projects of Fort Hills and Surmont.

The Company had decided to take into account only proved reserves on these two assets – unlike general practice which considers so-called proved and probable reserves. This led to an additional exceptional asset impairment of $(5,460) million in operating income and $(5,474) million in net income, TotalEnergies share.

Overall, asset impairments were recorded for the financial year 2020, for an amount of $(8,952) million in operating income and $(8,465) million in net income, TotalEnergies share, including $(6,988) million on Canadian oil sands assets alone.

These impairments were qualified as adjustment items of the operating income and net income, TotalEnergies share.

# Note 4 Segment Information by geographical area

| (M$) | France | Rest of Europe | North America | Africa | Rest of the world | Total |
|---|---|---|---|---|---|---|
| **For the year ended December 31, 2022** | | | | | | |
| External sales | 58,411 | 122,641 | 33,188 | 24,582 | 42,177 | **280,999** |
| Property, plant and equipment, intangible assets, net | 13,080 | 26,382 | 13,292 | 39,410 | 46,867 | **139,032** |
| Capital expenditures | 1,632 | 2,743 | 5,304 | 3,253 | 6,870 | **19,802** |
| **For the year ended December 31, 2021** | | | | | | |
| External sales | 43,316 | 85,072 | 22,998 | 19,520 | 34,957 | **205,863** |
| Property, plant and equipment, intangible assets, net | 14,204 | 29,660 | 12,229 | 41,593 | 41,357 | **139,043** |
| Capital expenditures | 2,157 | 3,027 | 1,680 | 3,696 | 6,029 | **16,589** |
| **For the year ended December 31, 2020** | | | | | | |
| External sales | 32,748 | 67,292 | 13,258 | 16,011 | 11,376 | **140,685** |
| Property, plant and equipment, intangible assets, net | 14,555 | 30,932 | 11,891 | 43,087 | 41,398 | **141,863** |
| Capital expenditures | 2,044 | 3,165 | 899 | 3,816 | 5,610 | **15,534** |

# Note 5 Main items related to operating activities

## Items related to the statement of income

### 5.1 Net sales

**Accounting principles**

IFRS 15 requires identification of the performance obligations for the transfer of goods and services in each contract with customers. Revenue is recognized upon satisfaction of the performance obligations for the amounts that reflect the consideration to which TotalEnergies expects to be entitled in exchange for those goods and services.

**Sales of goods**

Revenues from sales are recognized when the control has been transferred to the buyer and the amount can be reasonably measured. Revenues from sales of crude oil and natural gas are recorded upon transfer of title, according to the terms of the sales contracts.

Revenues from the production of crude oil and natural gas properties, in which TotalEnergies has an interest with other producers, are recognized based on actual entitlement volumes sold over the period. Any difference between entitlement volumes and volumes sold, based on TotalEnergies net working interest, are recognized in the "Under-lifting" and "Over-lifting" accounts in the balance sheet and in operating expenses in the profit and loss.

Oil and gas delivered quantities that represent production royalties and taxes, when paid in cash, are included in revenues, except for the United States and Canada.

Certain transactions within the trading activities (contracts involving quantities that are purchased from third parties then resold to third parties) are shown at their net value in purchases, net of inventory variation. These transactions relate in particular to crude oil, petroleum products, gas, power and LNG.

Exchanges of crude oil and petroleum products realized within trading activities are shown at their net value in both the statement of income and the balance sheet.

**Sales of services**

Revenues from services are recognized when the services have been rendered.

Revenues from gas transport are recognized when services are rendered. These revenues are based on the quantities transported and measured according to procedures defined in each service contract.

Shipping revenues and expenses from time-charter activities are recognized on a pro rata basis over a period that commences upon the unloading of the previous voyage and terminates upon the unloading of the current voyage. Shipping revenue recognition starts only when a charter has been agreed to by both TotalEnergies and the customer.

Income related to the distribution of electricity and gas is not recognized in revenues in certain countries because TotalEnergies acts as an agent in this transaction. In these countries, TotalEnergies is not responsible for the delivery and does not set the price of the service, because it can only pass on to the customer the amounts invoiced to it by the distributors.

**Excise taxes**

Excise taxes are rights or taxes which amount is calculated based on the quantity of oil and gas products put on the market. Excise taxes are determined by the states. They are paid directly to the customs and tax authorities and then invoiced to final customers by being included in the sales price.

The analysis of the criteria set by IFRS 15 led TotalEnergies to determine that it was acting as principal in these transactions. Therefore, sales are presented on a gross basis, including excise taxes collected by TotalEnergies within the course of its oil distribution operations. In addition, the subtotal "Revenue from Sales" is presented as an additional line item in the P&L and is obtained by deducting Excise tax expenses from Sales.

### 5.2 Operating expenses and research and development

**Accounting principles**

TotalEnergies applies IFRS 6 "Exploration for and Evaluation of Mineral Resources". Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Geological and geophysical costs, including seismic surveys for exploration purposes are expensed as incurred in exploration costs.

Costs of dry wells and wells that have not found proved reserves are charged to expense in exploration costs.

### 5.2.1 Operating expenses

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Purchases, net of inventory variation [(a)] [(b)] | (169,448) | (118,622) | (77,486) |
| Exploration costs | (1,299) | (740) | (731) |
| Other operating expenses [(c)] | (29,789) | (26,894) | (25,538) |
| *of which non-current operating liabilities (allowances) reversals* | *1,086* | *1,299* | *778* |
| *of which current operating liabilities (allowances) reversals* | *(188)* | *(30)* | *(77)* |
| **OPERATING EXPENSES** | **(200,536)** | **(146,256)** | **(103,755)** |

(a) Includes taxes paid on oil and gas production in the Exploration & Production segment, amongst others, royalties.
(b) TotalEnergies values under / over lifting at market value.
(c) Principally composed of production and administrative costs (see in particular the payroll costs as detailed in Note 10 to the Consolidated Financial Statements "Payroll, staff and employee benefits obligations").

### 5.2.2 Research and development costs

**Accounting principles**

Research costs are charged to expense as incurred.

Development expenses are capitalized when the criteria of IAS 38 are met.

Research and development costs incurred by TotalEnergies in 2022 and booked in operating expenses (excluding depreciations) amount to $762 million ($824 million in 2021 and $895 million in 2020), corresponding to 0.27% of the sales. At constant foreign exchange rates, research and development costs increased by 4% in 2022.

The staff dedicated in 2022 to these research and development activities are estimated at 3,536 people (3,830 in 2021 and 4,088 in 2020).

## 5.3 Amortization, depreciation and impairment of tangible assets and mineral interests

The amortization, depreciation and impairment of tangible assets and mineral interests are detailed as follows:

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Depreciation and impairment of tangible assets | (11,128) | (12,683) | (21,188) |
| Amortization and impairment of mineral assets | (1,093) | (873) | (1,076) |
| **TOTAL** | **(12,221)** | **(13,556)** | **(22,264)** |

# Items related to balance sheet

## 5.4 Working capital

### 5.4.1 Inventories

**Accounting principles**

Inventories are measured in the Consolidated Financial Statements at the lower of historical cost or market value. Costs for petroleum and petrochemical products are determined according to the FIFO (First-In, First-Out) method or weighted-average cost method and other inventories are measured using the weighted-average cost method.

In addition stocks held for trading are measured at fair value less cost to sell.

**Refining & Chemicals**

Petroleum product inventories are mainly comprised of crude oil and refined products. Refined products principally consist of gasoline, distillate and fuel produced by TotalEnergies' refineries. The turnover of petroleum products does not exceed two months on average.

Crude oil costs include raw material and receiving costs. Refining costs principally include crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Costs of chemical product inventories consist of raw material costs, direct labor costs and an allocation of production overheads. Start-up costs, general administrative costs and financing costs are excluded from the costs of refined and chemicals products.

**Marketing & Services**

The costs of products refined by TotalEnergies' entities include mainly raw materials costs, production costs (energy, labor, depreciation of producing assets), primary costs of transport and an allocation of production overheads (taxes, maintenance, insurance, etc.).

General administrative costs and financing costs are excluded from the cost price of refined products.

Product inventories purchased from entities external to TotalEnergies are valued at their purchase cost plus primary costs of transport.

*Carbon dioxide emission rights generated as part of the EU Emission Trading scheme (EU ETS)*

In the absence of a current IFRS standard or interpretation on accounting for emission rights of carbon dioxide generated as part of the EU Emission Trading scheme (EU ETS), the following principles are applied:

- Emission rights are managed as a cost of production and as such are recognized in inventories:
  - Emission rights allocated for free are booked in inventories with a nil carrying amount;
  - Purchased emission rights are booked at acquisition cost;
  - Sales or annual surrender of emission rights result in decreases in inventories valued at weighted-average cost;
  - If the carrying amount of inventories at closing date is higher than the market value, an impairment loss is recorded.
- If emission rights to be surrendered at the end of the compliance period are higher than emission rights (allocated and purchased), the shortage is accounted for as a liability at market value;
- Forward transactions are recognized at their fair market value in the balance sheet. Changes in the fair value of such forward transactions are recognized in the statement of income.

*Energy savings certificates*

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- If the obligations linked to the sales of energy are greater than the number of ESC's held then a liability is recorded. These liabilities are valued based on the price of the last transactions;
- In the event that the number of ESC's held exceeds the obligation at the balance sheet date this is accounted for as inventory. Otherwise a valuation allowance is recorded ;
- ESC inventories are valued at weighted-average cost (acquisition cost for those ESC's acquired or cost incurred for those ESC's generated internally).

If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded.

| As of December 31, 2022 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| Crude oil and natural gas | 4,758 | (47) | 4,711 |
| Refined products | 6,386 | (162) | 6,224 |
| Chemicals products | 1,635 | (93) | 1,542 |
| Trading inventories | 6,672 | – | 6,672 |
| Other inventories | 4,797 | (1,010) | 3,787 |
| **TOTAL** | **24,248** | **(1,312)** | **22,936** |

| As of December 31, 2021 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| Crude oil and natural gas | 3,221 | (7) | 3,214 |
| Refined products | 5,411 | (50) | 5,361 |
| Chemicals products | 1,519 | (98) | 1,421 |
| Trading inventories | 6,501 | – | 6,501 |
| Other inventories | 4,538 | (1,083) | 3,455 |
| **TOTAL** | **21,190** | **(1,238)** | **19,952** |

| As of December 31, 2020 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| Crude oil and natural gas | 1,818 | (1) | 1,817 |
| Refined products | 3,913 | (68) | 3,845 |
| Chemicals products | 1,330 | (102) | 1,228 |
| Trading inventories | 5,130 | – | 5,130 |
| Other inventories | 3,824 | (1,114) | 2,710 |
| **TOTAL** | **16,015** | **(1,285)** | **14,730** |

Changes in the valuation allowance on inventories are as follows:

| For the year ended December 31, (M$) | Valuation allowance as of January 1, | Increase (net) | Currency translation adjustment and other variations | Valuation allowance as of December 31, |
|---|---|---|---|---|
| **2022** | **(1,238)** | **(121)** | **47** | **(1,312)** |
| 2021 | (1,285) | (36) | 83 | (1,238) |
| 2020 | (1,174) | (85) | (26) | (1,285) |

### 5.4.2 Accounts receivable and other current assets

| As of December 31, 2022 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| **Accounts receivable** | **25,204** | **(826)** | **24,378** |
| Recoverable taxes | 6,295 | (32) | 6,263 |
| Other operating receivables | 28,582 | (293) | 28,289 |
| Prepaid expenses | 1,455 | – | 1,455 |
| Other current assets | 63 | – | 63 |
| **Other current assets** | **36,395** | **(325)** | **36,070** |

| As of December 31, 2021 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| **Accounts receivable** | **22,776** | **(793)** | **21,983** |
| Recoverable taxes | 3,713 | (54) | 3,659 |
| Other operating receivables | 29,767 | (214) | 29,553 |
| Prepaid expenses | 1,879 | – | 1,879 |
| Other current assets | 53 | – | 53 |
| **Other current assets** | **35,412** | **(268)** | **35,144** |

| As of December 31, 2020 (M$) | Gross value | Valuation allowance | Net value |
|---|---|---|---|
| **Accounts receivable** | **14,899** | **(831)** | **14,068** |
| Recoverable taxes | 3,598 | (67) | 3,531 |
| Other operating receivables | 8,251 | (208) | 8,043 |
| Prepaid expenses | 1,801 | – | 1,801 |
| Other current assets | 53 | – | 53 |
| **Other current assets** | **13,703** | **(275)** | **13,428** |

Changes in the valuation allowance on “Accounts receivable” and “Other current assets” are as follows:

| For the year ended December 31, (M$) | Valuation allowance as of January 1, | Increase (net) | Currency translation adjustments and other variations | Valuation allowance as of December 31, |
|---|---|---|---|---|
| **Accounts receivable** | | | | |
| **2022** | **(793)** | **(98)** | **65** | **(826)** |
| 2021 | (831) | (24) | 62 | (793) |
| 2020 | (674) | (107) | (50) | (831) |
| **Other current assets** | | | | |
| **2022** | **(268)** | **(83)** | **26** | **(325)** |
| 2021 | (275) | (10) | 17 | (268) |
| 2020 | (335) | 37 | 23 | (275) |

As of December 31, 2022, the net portion of the overdue receivables included in “Accounts receivable” and “Other current assets” was $5,481 million, of which $3,328 million was due less than 90 days, $672 million was due between 90 days and 6 months, $571 million was due between 6 and 12 months and $910 million was due after 12 months.

As of December 31, 2021, the net portion of the overdue receivables included in "Accounts receivable" and "Other current assets" was $4,482 million, of which $2,844 million was due less than 90 days, $260 million was due between 90 days and 6 months, $556 million was due between 6 and 12 months and $823 million was due after 12 months.

As of December 31, 2020, the net portion of the overdue receivables included in “Accounts receivable” and “Other current assets” was $4,197 million, of which $2,140 million was due less than 90 days, $239 million was due between 90 days and 6 months, $553 million was due between 6 and 12 months and $1,265 million was due after 12 months.

### 5.4.3 Other creditors and accrued liabilities

| As of December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Accruals and deferred income | 737 | 3,744 | 842 |
| Payable to States (including taxes and duties) | 14,780 | 10,281 | 5,734 |
| Payroll | 1,572 | 1,481 | 1,587 |
| Other operating liabilities | 35,186 | 27,294 | 14,302 |
| **TOTAL** | **52,275** | **42,800** | **22,465** |

As of December 31, 2022, the heading “Other operating liabilities” notably includes the second quarterly interim dividend for the fiscal year 2022 for $1,857 million, which was paid in January 2023 and the third quarterly interim dividend for the fiscal year 2022 for $1,827 million, which will be paid in April 2023.

As of December 31, 2021, the heading “Other operating liabilities” notably included the second quarterly interim dividend for the fiscal year 2021 for $1,974 million, which was paid in January 2022 and the third quarterly interim dividend for the fiscal year 2021 for $1,948 million, which was paid in April 2022.

As of December 31, 2020, the heading "Other operating liabilities" notably included the second quarterly interim dividend for the fiscal year 2020 for $2,129 million, which was paid in January 2021 and the third quarterly interim dividend for the fiscal year 2020 for $2,149 million, which was paid in April 2021.

# Items related to the cash flow statement

## 5.5 Cash flow from operating activities

**Accounting principles**

The Consolidated Statement of Cash Flows prepared in currencies other than dollar has been translated into dollars using the exchange rate on the transaction date or the average exchange rate for the period. Currency translation differences arising from the translation of monetary assets and liabilities denominated in foreign currency into dollars using the closing exchange rates are shown in the Consolidated Statement of Cash Flows under “Effect of exchange rates”. Therefore, the Consolidated Statement of Cash Flows will not agree with the figures derived from the Consolidated Balance Sheet.

The following table gives additional information on cash paid or received in the cash flow from operating activities.

**Detail of interest, taxes and dividends**

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Interests paid | (2,292) | (1,886) | (2,145) |
| Interests received | 655 | 284 | 197 |
| Income tax paid[(a)] | (14,486) | (4,508) | (2,858) |
| Dividends received | 3,955 | 2,346 | 1,444 |

(a) These amounts include taxes paid in kind under production-sharing contracts in exploration and production activities.

**Detail of changes in working capital**

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Inventories | (3,805) | (5,903) | 2,274 |
| Accounts receivable | (3,272) | (6,788) | 4,818 |
| Other current assets | (3,523) | (21,026) | 3,374 |
| Accounts payable | 5,313 | 12,073 | (5,355) |
| Other creditors and accrued liabilities | 6,478 | 21,028 | (3,242) |
| **NET AMOUNT, DECREASE (INCREASE)** | **1,191** | **(616)** | **1,869** |

**Detail of changes in provisions and deferred taxes**

| As of December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Accruals | 2,177 | (467) | 350 |
| Deferred taxes | 2,417 | 1,429 | (2,132) |
| **TOTAL** | **4,594** | **962** | **(1,782)** |

# Note 6 Other items from operating activities

## 6.1 Other income and other expense

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Gains on disposal of assets | 2,244 | 890 | 961 |
| Foreign exchange gains | 379 | 227 | 746 |
| Other | 226 | 195 | 530 |
| **OTHER INCOME** | **2,849** | **1,312** | **2,237** |
| | | | |
| Losses on disposal of assets | (2,613) | (436) | (52) |
| Foreign exchange losses | (1,023) | (702) | (320) |
| Amortization of other intangible assets (excl. mineral interests) | (430) | (448) | (343) |
| Other | (3,278) | (731) | (791) |
| **OTHER EXPENSE** | **(7,344)** | **(2,317)** | **(1,506)** |

**Other income**

In 2022, gains on disposal of assets are mainly related to the partial disposal of TotalEnergies’ interest in its subsidiary which owns 50.5% of SunPower and the revaluation of its retained interest which is accounted for using the equity method for $1,461 million in the segment Integrated Gas, Renewables & Power.

In 2021, gains on disposal of assets included the sale of interests in onshore Oil Mining Lease 17 in Nigeria in the Exploration & Production segment, the sale of interests in two portfolios of renewable assets in the Gas Renewables & Power segment, and the sale of a part of TotalEnergies’ investment in Trapil in the Refining & Chemicals and Marketing & Services segments.

In 2020, gains on disposal of assets mainly related to the sale of non-strategic assets in the British North Sea in the Exploration & Production segment, to the sale of TotalEnergies' interest in the Fos Cavaou regasification terminal in France and the sale of infrastructure assets in the Integrated Gas Renewables & Power segment, as well as to the sale of real estate in Belgium in the Holding segment.

**Other expense**

In 2022, losses on disposal of assets are mainly related to the recycling in expenses of Exploration & Production, of an amount of $2,384 million representing the accumulated foreign exchange losses accumulated in equity since the acquisition of the Novatek stake and until its deconsolidation date. The heading "Other" notably includes provisions relating to assets in Russia in the Integrated Gas, Renewables & Power and Exploration-Production segments.

In 2021, the losses on disposal were mainly related to the sale of the Utica asset in the United States as well as the sale of interests in non-operated assets and the Cap Lopez oil terminal in Gabon in the Exploration & Production segment. The heading "Other" mainly consists of the restructuring charges in the Exploration & Production, Refining & Chemicals, Marketing & Services and Holding segments for an amount of $288 million, and of the impairment of non-consolidated shares and provision for financial risks for $238 million.

In 2020, the heading "Other" notably consisted of restructuring charges in the Exploration & Production, Integrated Gas Renewables & Power and Refining & Chemicals segments for an amount of $312 million, and of the impairment of non-consolidated shares and loans granted to non-consolidated subsidiaries for an amount of $64 million.

## 6.2 Other financial income and expense

| **As of December 31,** (M$) | **2022** | **2021** | **2020** |
|---|---|---|---|
| Dividend income on non-consolidated subsidiaries | 159 | 203 | 160 |
| Capitalized financial expenses | 310 | 134 | 110 |
| Other | 427 | 425 | 644 |
| **OTHER FINANCIAL INCOME** | **896** | **762** | **914** |
| Accretion of asset retirement obligations | (430) | (449) | (607) |
| Other | (103) | (90) | (83) |
| **OTHER FINANCIAL EXPENSE** | **(533)** | **(539)** | **(690)** |

## 6.3 Other non-current assets

| **As of December 31, 2022**<br>(M$) | **Gross value** | **Valuation allowance** | **Net value** |
|---|---|---|---|
| Loans and advances [(a)] | 2,092 | (255) | 1,837 |
| Other non-current financial assets related to operational activities | 250 | – | 250 |
| Other | 301 | – | 301 |
| **TOTAL** | **2,643** | **(255)** | **2,388** |

| **As of December 31, 2021**<br>(M$) | **Gross value** | **Valuation allowance** | **Net value** |
|---|---|---|---|
| Loans and advances [(a)] | 2,364 | (257) | 2,107 |
| Other non-current financial assets related to operational activities | 312 | – | 312 |
| Other | 378 | – | 378 |
| **TOTAL** | **3,054** | **(257)** | **2,797** |

| **As of December 31, 2020**<br>(M$) | **Gross value** | **Valuation allowance** | **Net value** |
|---|---|---|---|
| Loans and advances [(a)] | 2,731 | (273) | 2,458 |
| Other non-current financial assets related to operational activities | 287 | – | 287 |
| Other | 65 | – | 65 |
| **TOTAL** | **3,083** | **(273)** | **2,810** |

(a) Excluding loans to equity affiliates.

Changes in the valuation allowance on loans and advances are detailed as follows:

| **For the year ended December 31,**<br>(M$) | **Valuation allowance as of January 1,** | **Increases** | **Decreases** | **Currency translation adjustment and other variations** | **Valuation allowance as of December 31,** |
|---|---|---|---|---|---|
| **2022** | **(257)** | **(27)** | **11** | **18** | **(255)** |
| 2021 | (273) | (6) | 14 | 8 | (257) |
| 2020 | (266) | (30) | 15 | 8 | (273) |

# Note 7 Intangible and tangible assets

## 7.1 Intangible assets

**Accounting principles**

**Goodwill**

Guidance for measuring goodwill is presented in Note 1.1 paragraph B to the Consolidated Financial Statements. Goodwill is not amortized but is tested for impairment at least annually and as soon as there is any indication of impairment.

**Mineral interests**

Unproved mineral interests are tested for impairment based on the results of the exploratory activity or as part of the impairment tests of the cash-generating units to which they are allocated.

Unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves.

The corresponding expense is recorded as depreciation of tangible assets and mineral interests.

**Other intangible assets**

Other intangible assets include patents, and trademarks.

Intangible assets are carried at cost, after deducting any accumulated amortization and accumulated impairment losses.

Intangible assets (excluding mineral interests) that have a finite useful life are amortized on a straight-line basis over three to twenty years depending on the useful life of the assets. The corresponding depreciation expense is recorded under other expense.

| As of December 31, 2022<br>(M$) | Cost | Amortization and impairment | Net |
|---|---|---|---|
| Goodwill | 9,010 | (360) | 8,650 |
| Proved mineral interests | 18,025 | (10,088) | 7,937 |
| Unproved mineral interests | 15,962 | (2,946) | 13,016 |
| Other intangible assets | 6,795 | (4,467) | 2,328 |
| **TOTAL INTANGIBLE ASSETS** | **49,792** | **(17,861)** | **31,931** |

| As of December 31, 2021<br>(M$) | Cost | Amortization and impairment | Net |
|---|---|---|---|
| Goodwill | 9,728 | (899) | 8,829 |
| Proved mineral interests | 17,382 | (9,730) | 7,652 |
| Unproved mineral interests | 16,637 | (2,831) | 13,806 |
| Other intangible assets | 7,185 | (4,988) | 2,197 |
| **TOTAL INTANGIBLE ASSETS** | **50,932** | **(18,448)** | **32,484** |

| As of December 31, 2020<br>(M$) | Cost | Amortization and impairment | Net |
|---|---|---|---|
| Goodwill | 9,738 | (931) | 8,807 |
| Proved mineral interests | 16,559 | (9,595) | 6,964 |
| Unproved mineral interests | 20,300 | (4,790) | 15,510 |
| Other intangible assets | 7,212 | (4,965) | 2,247 |
| **TOTAL INTANGIBLE ASSETS** | **53,809** | **(20,281)** | **33,528** |

Change in net intangible assets is analyzed in the following table:

| (M$) | Net amount as of January 1, | Expenditures | Disposals | Amortization and impairment | Currency translation adjustment | Other | Net amount as of December 31, |
|---|---|---|---|---|---|---|---|
| **2022** | **32,484** | **1,991** | **(75)** | **(1,582)** | **(423)** | **(464)** | **31,931** |
| 2021 | 33,528 | 696 | (271) | (1,322) | (394) | 247 | 32,484 |
| 2020 | 33,178 | 784 | (277) | (1,430) | 305 | 968 | 33,528 |

In 2022, the heading “Amortization and impairment” includes the accounting impact of exceptional asset impairments for an amount of $301 million, resulting in particular from the withdrawal from the North Platte project in the deep waters of the Gulf of Mexico (see note 3, paragraph D to the consolidated financial statements).

In 2022, the heading “Other” mainly reflects the effect of changes in the consolidation scope (in particular the removal of SunPower from the scope of consolidation for USD 167 million).

In 2021, the heading “Amortization and impairment” included the accounting impact of exceptional asset impairments for an amount of $253 million, notably relating to the end of the Qatargas 1 licence agreement and unconventional assets in the United States (see note 3 paragraph D to the Consolidated Financial Statements).

In 2021, the heading “Other” mainly reflected changes in the consolidation scope (including the acquisition of Blue Raven Solar for $140 million and Fonroche Biogaz) for $89 million.

In 2020, the heading “Amortization and impairment” included the accounting impact of exceptional asset impairments for an amount of $323 million (see note 3 paragraph D to the Consolidated Financial Statements).

In 2020, the heading “Other” mainly reflected changes in the consolidation scope (including the acquisition of the residential gas and electricity supply business in Spain) for $898 million.

A summary of changes in the carrying amount of goodwill by business segment for the year ended December 31, 2022 is as follows:

| (M$) | Net goodwill as of January 1, 2022 | Increases | Impairments | Other | Net goodwill as of December 31, 2022 |
|---|---|---|---|---|---|
| Integrated Gas, Renewables & Power | 5,243 | 111 | (58) | (273) | 5,023 |
| Exploration & Production | 2,612 | – | – | (31) | 2,581 |
| Refining & Chemicals | 519 | – | – | (17) | 502 |
| Marketing & Services | 426 | 108 | – | (18) | 516 |
| Corporate | 29 | – | – | (1) | 28 |
| **TOTAL** | **8,829** | **219** | **(58)** | **(340)** | **8,650** |

## 7.2 Property, plant and equipment

**Accounting principles**

**Exploration costs**

TotalEnergies applies IFRS 6 "Exploration for and Evaluation of Mineral Resources". Oil and gas exploration and production properties and assets are accounted for in accordance with the Successful Efforts method.

Exploratory wells are capitalized and tested for impairment on an individual basis as follows:

- Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;
- Costs of exploratory wells are capitalized as work in progress until proved reserves have been found, if both of the following conditions are met:
    - The well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditures are made;
    - TotalEnergies is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether TotalEnergies is waiting for governmental or other third-party authorization on a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to exploration costs.

**Oil and Gas production assets of exploration and production activities**

Development costs of oil and gas production facilities are capitalized. These costs include borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations.

The depletion rate of development wells and of production assets is equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

In the event that, due to the price effect on reserves evaluation, the unit-of-production method does not reflect properly the useful life of the asset, an alternative depreciation method is applied based on the reserves evaluated with the price of the previous year. This was the case for fiscal year 2020 where the method of unit-of-production depreciation was applied to all assets over 2020 based on proved reserves measured with the price used in 2019. As of December 31, 2021, and December 31, 2022, this alternative method is not applied as, given the price used to assess the reserves, the unit-of-production method correctly reflects the useful life of the assets.

With respect to phased development projects or projects subject to progressive well production start-up, the fixed assets' depreciable amount, excluding production or service wells, is adjusted to exclude the portion of development costs attributable to the undeveloped reserves of these projects.

With respect to production sharing contracts, the unit-of-production method is based on the portion of production and reserves assigned to TotalEnergies taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil/gas) as well as the sharing of hydrocarbon rights after deduction of cost oil (profit oil/gas).

Hydrocarbon transportation and processing assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the economic life of the asset.

### Other property, plant and equipment

Other property, plant and equipment are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses. This cost includes borrowing costs directly attributable to the acquisition or production of a qualifying asset incurred until assets are placed in service. Borrowing costs are capitalized as follows:

- if the project benefits from a specific funding, the capitalization of borrowing costs is based on the borrowing rate;
- if the project is financed by all TotalEnergies' debt, the capitalization of borrowing costs is based on the weighted average borrowing cost for the period.

Routine maintenance and repairs are charged to expense as incurred. The costs of major turnarounds of refineries and large petrochemical units are capitalized as incurred and depreciated over the period of time between two consecutive major turnarounds.

Other property, plant and equipment are depreciated using the straight-line method over their useful lives, which are as follows:

| | |
|---|---|
| ● Furniture, office equipment, machinery and tools | 3-12 years |
| ● Transportation equipment | 5-20 years |
| ● Storage tanks and related equipment | 10-15 years |
| ● Specialized complex installations and pipelines | 10-30 years |
| ● Buildings | 10-50 years |

| As of December 31, 2022 (M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| **Property, plant and equipment of exploration and production activities** | | | |
| Proved properties | 210,079 | (146,571) | 63,508 |
| Unproved properties | 1,023 | (268) | 755 |
| Work in progress | 20,294 | (688) | 19,606 |
| **Subtotal** | **231,396** | **(147,527)** | **83,869** |
| **Other property, plant and equipment** | | | |
| Land | 3,089 | (1,039) | 2,050 |
| Machinery, plant and equipment (including transportation equipment) | 37,002 | (26,079) | 10,923 |
| Buildings | 10,230 | (6,627) | 3,603 |
| Work in progress | 3,960 | (23) | 3,937 |
| Other | 10,401 | (7,682) | 2,719 |
| **Subtotal** | **64,682** | **(41,450)** | **23,232** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **296,078** | **(188,977)** | **107,101** |

| As of December 31, 2021 (M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| **Property, plant and equipment of exploration and production activities** | | | |
| Proved properties | 212,264 | (149,221) | 63,043 |
| Unproved properties | 1,635 | (268) | 1,367 |
| Work in progress | 18,463 | (831) | 17,632 |
| **Subtotal** | **232,362** | **(150,320)** | **82,042** |
| **Other property, plant and equipment** | | | |
| Land | 3,145 | (973) | 2,172 |
| Machinery, plant and equipment (including transportation equipment) | 38,285 | (26,425) | 11,860 |
| Buildings | 10,558 | (6,646) | 3,912 |
| Work in progress | 3,625 | (8) | 3,617 |
| Other | 10,434 | (7,478) | 2,956 |
| **Subtotal** | **66,047** | **(41,530)** | **24,517** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **298,409** | **(191,850)** | **106,559** |

| As of December 31, 2020 (M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| **Property, plant and equipment of exploration and production activities** | | | |
| Proved properties | 215,892 | (147,914) | 67,978 |
| Unproved properties | 2,978 | (268) | 2,710 |
| Work in progress | 13,873 | (861) | 13,012 |
| **Subtotal** | **232,743** | **(149,043)** | **83,700** |
| **Other property, plant and equipment** | | | |
| Land | 2,999 | (905) | 2,094 |
| Machinery, plant and equipment (including transportation equipment) | 39,506 | (27,381) | 12,125 |
| Buildings | 11,184 | (6,858) | 4,326 |
| Work in progress | 3,063 | (1) | 3,062 |
| Other | 10,983 | (7,955) | 3,028 |
| **Subtotal** | **67,735** | **(43,100)** | **24,635** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **300,478** | **(192,143)** | **108,335** |

Change in net property, plant and equipment is analyzed in the following table:

| (M$) | Net amount as of January 1, | Expenditures | Disposals | Depreciation and impairment | Currency translation adjustment | Other | Net amount as of December 31, |
|---|---|---|---|---|---|---|---|
| **2022** | **106,559** | **13,699** | **(951)** | **(12,275)** | **(2,236)** | **2,305** | **107,101** |
| 2021 | 108,335 | 11,647 | (705) | (13,133) | (1,739) | 2,154 | 106,559 |
| 2020 | 116,408 | 9,980 | (611) | (21,544) | 1,706 | 2,396 | 108,335 |

In 2022, the heading “Disposals” mainly includes the impact of the transfer of assets from TotalEnergies East Africa Midstream to the equity-accounted company EACOP for $508 million.

In 2022, the heading “Depreciation and impairment” includes the impact of impairments of assets recognized for an amount of $888 million, including the withdrawal from the North Platte project in the deep waters of the Gulf of Mexico, and an impairment reversal of $1,196 million on the Company's assets in Canada (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2022, the heading “Other” includes the impact of changes in the consolidation scope, and the impact of new IFRS 16 contracts during the year (mainly FPSOs and vessels) for an amount of $1,969 million.

In 2021, the heading “Disposals” mainly included the sale of non-operated assets in Gabon for $397 million.

In 2021, the heading “Depreciation and impairment” included the impact of impairments of assets recognized for an amount of $615 million including the Company's assets in Myanmar and unconventional assets in the United States (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2021, the heading “Other” included the impact of changes in the consolidation scope, and the impact of the new IFRS 16 contracts of the period (mainly new chartering contracts) for an amount of $1,786 million.

In 2020, the heading “Disposals” mainly included the sale of non strategic assets in the United Kingdom for $240 million.

In 2020, the heading “Depreciation and impairment” included the impact of impairments of assets recognized for an amount of $8,629 million (see Note 3 paragraph D to the Consolidated Financial Statements).

In 2020, the heading “Other” included the impact of changes in the consolidation scope, the impact of the new IFRS 16 contracts of the period (mainly LNG carriers and FPSO vessels) for an amount of $1,815 million, and the reversal of the reclassification under IFRS 5 as at December 31, 2019 for $434 million corresponding to disposals (mainly non strategic assets in the United Kingdom and Total E&P Deep Offshore Borneo BV).

Following the application of IFRS 16 "Leases", property, plant and equipment as at December 31, 2022, 2021 and 2020 presented above include the following amounts for rights of use of assets:

| As of December 31, 2022<br>(M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| Property, plant and equipment of exploration and production activities | 4,497 | (2,121) | 2,376 |
| **Other property, plant and equipment** | | | |
| Land | 1,396 | (397) | 999 |
| Machinery, plant and equipment (including transportation equipment) | 4,691 | (2,100) | 2,591 |
| Buildings | 1,750 | (615) | 1,135 |
| Other | 745 | (483) | 262 |
| **Subtotal** | **8,582** | **(3,595)** | **4,987** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **13,079** | **(5,716)** | **7,363** |

| As of December 31, 2021<br>(M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| Property, plant and equipment of exploration and production activities | 3,228 | (1,683) | 1,545 |
| **Other property, plant and equipment** | | | |
| Land | 1,441 | (324) | 1,117 |
| Machinery, plant and equipment (including transportation equipment) | 4,910 | (1,819) | 3,091 |
| Buildings | 1,853 | (561) | 1,292 |
| Other | 712 | (404) | 308 |
| **Subtotal** | **8,916** | **(3,108)** | **5,808** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **12,144** | **(4,791)** | **7,353** |

| As of December 31, 2020<br>(M$) | Cost | Depreciation and impairment | Net |
|---|---|---|---|
| Property, plant and equipment of exploration and production activities | 2,758 | (1,297) | 1,461 |
| **Other property, plant and equipment** | | | |
| Land | 1,187 | (222) | 965 |
| Machinery, plant and equipment (including transportation equipment) | 4,606 | (1,631) | 2,975 |
| Buildings | 1,778 | (385) | 1,393 |
| Other | 682 | (286) | 396 |
| **Subtotal** | **8,253** | **(2,524)** | **5,729** |
| **TOTAL PROPERTY, PLANT AND EQUIPMENT** | **11,011** | **(3,821)** | **7,190** |

# Note 8 Equity affiliates, other investments and related parties

## 8.1 EQUITY AFFILIATES: INVESTMENTS AND LOANS

**Accounting principles**

Under the equity method, the investment in the associate or joint venture is initially recognized at acquisition cost and subsequently adjusted to recognize TotalEnergies’ share of the net income and other comprehensive income of the associate or joint venture.

Unrealized gains on transactions between TotalEnergies and its equity-accounted entities are eliminated to the extent of TotalEnergies’ interest in the equity accounted entity.

In equity affiliates, goodwill is included in investment book value.

In cases where TotalEnergies holds less than 20% of the voting rights in another entity, the determination of whether TotalEnergies exercises significant influence is also based on other facts and circumstances: representation on the Board of Directors or an equivalent governing body of the entity, participation in policy-making processes, including participation in decisions relating to dividends or other distributions, significant transactions between the investor and the entity, exchange of management personnel, or provision of essential technical information.

The contribution of equity affiliates in the consolidated balance sheet, consolidated statement of income and consolidated statement of comprehensive income is presented below:

**Equity value**
**As of December 31,**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Total Associates | 9,533 | 17,244 | 15,745 |
| Total Joint ventures | 14,623 | 9,277 | 7,102 |
| **TOTAL** | **24,156** | **26,521** | **22,847** |
| Loans | 3,733 | 4,532 | 5,129 |
| **TOTAL** | **27,889** | **31,053** | **27,976** |

**Profit/(loss)**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Total Associates | (4,567) | 1,186 | 753 |
| Total Joint ventures | 2,675 | 2,252 | (301) |
| **TOTAL** | **(1,892)** | **3,438** | **452** |

**Other comprehensive income**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Total Associates | 3,368 | 734 | (1,704) |
| Total Joint ventures | 129 | (28) | (127) |
| **TOTAL** | **3,497** | **706** | **(1,831)** |

## A) Information related to associates

Information (100% gross) related to significant associates is as follows:

| | Novatek[a] | | | Liquefaction entities | | | PetroCedeño[a] |
|---|---|---|---|---|---|---|---|
| **Exploration & production activites** (M$) | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2020 |
| Non current assets | – | 26,954 | 23,748 | 40,850 | 39,348 | 34,273 | 4,008 |
| Current assets | – | 8,208 | 4,170 | 8,276 | 11,075 | 7,537 | 6,428 |
| **TOTAL ASSETS** | – | **35,162** | **27,918** | **49,126** | **50,423** | **41,810** | **10,436** |
| Shareholder's equity | – | 25,944 | 22,160 | 19,188 | 23,867 | 23,403 | 4,548 |
| Non current liabilities | – | 3,246 | 3,164 | 22,312 | 19,659 | 13,608 | 73 |
| Current liabilities | – | 5,972 | 2,594 | 7,626 | 6,897 | 4,799 | 5,815 |
| **TOTAL LIABILITIES** | – | **35,162** | **27,918** | **49,126** | **50,423** | **41,810** | **10,436** |
| Revenue from sales | – | 15,876 | 9,733 | 35,888 | 23,243 | 15,584 | 66 |
| **Net income** | – | **5,871** | **1,759** | **10,247** | **8,056** | **2,416** | **–** |
| **Other comprehensive income** | – | **(82)** | **(3,206)** | **–** | **–** | **–** | **–** |
| % owned | 19.40 % | 19.40 % | 19.40 % | – | – | – | 30.32 % |
| Equity value | – | 6,243 | 5,596 | 3,243 | 5,582 | 5,534 | 1,379 |
| *Including goodwill and identifiable assets* | – | *1,210* | *1,297* | *34* | *1,832* | *1,837* | – |
| Profit/(loss) | (5,747) | 1,065 | 264 | (340) | 1,024 | 237 | – |
| Share of Other Comprehensive Income, net amount | 3,118 | 446 | (1,409) | (71) | 85 | (122) | – |
| Dividends paid to TotalEnergies | 883 | 387 | 229 | 1,224 | 817 | 406 | – |

(a) Information includes the best Company's estimates of results at the date of TotalEnergies' financial statements.

As of 31 December 2022, Novatek is no longer an equity accounted affiliate in the Company's consolidated financial statements (see note 2.1 to the consolidated financial statements). This stake is now recognized in "other investments" and is measured in accordance with IFRS 9 at fair value through profit or loss. In the context of the Russian-Ukrainian conflict, the Company considers that the market value of Novatek is not representative of its fair value. As of December 31, 2022, the Company retained a zero fair value given the very significant uncertainties on any valuation assumption for the stake in Novatek.

TotalEnergies' interests in associates operating liquefaction plants are combined. The amounts include investments in: Nigeria LNG (15.00%), TotalEnergies LNG Angola (13.60%), Yemen LNG (39.62%), Qatar Liquefied Gas Company Limited (Qatargas) (10.00%), Qatar Liquefied Gas Company Limited II (16.70%), Oman LNG (5.54%), and Abu Dhabi Gas Liquefaction Company Limited (5.00%), Arctic LNG 2 (10.00%).

TotalEnergies' stake in PetroCedeño was sold in July 2021.

| **Renewables and Electricity activities** (M$) | Adani Green Energy Limited (a) 2022 | 2021 |
|---|---|---|
| Non current assets | 6,961 | 6,223 |
| Current assets | 769 | 1,042 |
| **TOTAL ASSETS** | **7,730** | **7,265** |
| Shareholder's equity | 807 | 316 |
| Non current liabilities | 5,805 | 5,560 |
| Current liabilities | 1,118 | 1,389 |
| **TOTAL LIABILITIES** | **7,730** | **7,265** |
| Revenue from sales | 1,073 | 545 |
| **Net income** | **104** | **35** |
| **Other comprehensive income** | **(112)** | **(10)** |
| % owned | 19.74 % | 20.00 % |
| Equity value | 1,856 | 2,102 |
| *including goodwill and identifiable assets* | *1,697* | *2,039* |
| Profit/(loss) | 21 | 7 |
| Share of Other Comprehensive Income, net amount | 23 | 6 |
| Dividends paid to TotalEnergies | – | – |

(a) Interest acquired in 2021

| Refining & Chemicals activities (M$) | Saudi Aramco Total Refining & Petrochemicals | | | Qatar | | |
|---|---|---|---|---|---|---|
| | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Non current assets | 10,003 | 10,264 | 10,698 | 3,905 | 3,909 | 4,105 |
| Current assets | 3,615 | 2,221 | 1,211 | 2,491 | 1,908 | 1,521 |
| **TOTAL ASSETS** | **13,618** | **12,485** | **11,909** | **6,396** | **5,817** | **5,626** |
| Shareholder's equity | 3,858 | 1,164 | 1,256 | 2,737 | 2,693 | 2,717 |
| Non current liabilities | 6,365 | 7,322 | 7,994 | 2,062 | 1,906 | 2,171 |
| Current liabilities | 3,395 | 3,999 | 2,659 | 1,597 | 1,218 | 738 |
| **TOTAL LIABILITIES** | **13,618** | **12,485** | **11,909** | **6,396** | **5,817** | **5,626** |
| Revenue from sales | 20,492 | 11,123 | 6,031 | 13,193 | 9,266 | 5,222 |
| **Net income** | **2,409** | **(245)** | **(686)** | **629** | **649** | **91** |
| **Other comprehensive income** | **284** | **155** | **(171)** | **(5)** | **(5)** | **–** |
| % owned | 37.50 % | 37.50 % | 37.50 % | | | |
| Equity value | 1,447 | 437 | 471 | 703 | 693 | 716 |
| *including goodwill and identifiable assets* | – | – | – | – | – | – |
| Profit/(loss) | 903 | (92) | (257) | 161 | 174 | 57 |
| Share of Other Comprehensive Income, net amount | 147 | 116 | (128) | 10 | 13 | (16) |
| Dividends paid to TotalEnergies | – | – | – | 138 | 199 | 63 |

Saudi Aramco Total Refining & Petrochemicals is an entity including a refinery in Jubail, Saudi Arabia, with a capacity of 460,000 barrels/day with integrated petrochemical units.

The TotalEnergies' interests in associates of the Refining & Chemicals segment, operating steam crackers and polyethylene lines in Qatar have been combined: Qatar Petrochemical Company Ltd. (20.00%), Qatofin (49.08%), Laffan Refinery (10.00%) and Laffan Refinery II (10.00%).

## B) Information related to joint ventures

The information (100% gross) related to significant joint ventures is as follows:

| | Liquefaction entities (Integrated Gas, Renewables & Power) | | | Hanwha TotalEnergies Petrochemical Co (Refining & Chemicals) | | |
|---|---|---|---|---|---|---|
| (M$) | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Non current assets | 65,293 | 66,924 | 70,425 | 4,113 | 4,443 | 4,664 |
| Current assets excluding cash and cash equivalents | 2,630 | 2,912 | 1,513 | 2,326 | 2,117 | 1,575 |
| Cash and cash equivalents | 4,375 | 2,312 | 1,834 | 82 | 151 | 303 |
| **TOTAL ASSETS** | **72,298** | **72,148** | **73,772** | **6,521** | **6,711** | **6,542** |
| Shareholder’s equity | 17,455 | 9,956 | 4,433 | 3,146 | 3,538 | 3,443 |
| Other non current liabilities | 10,785 | 8,205 | 8,259 | 180 | 164 | 167 |
| Non current financial debts | 41,452 | 50,920 | 58,128 | 1,220 | 1,241 | 1,703 |
| Other current liabilities | 2,606 | 3,067 | 2,952 | 1,117 | 1,055 | 583 |
| Current financial debts | – | – | – | 858 | 713 | 646 |
| **TOTAL LIABILITIES** | **72,298** | **72,148** | **73,772** | **6,521** | **6,711** | **6,542** |
| Revenue from sales | 24,701 | 14,380 | 8,543 | 10,824 | 8,600 | 5,734 |
| Depreciation and depletion of tangible assets and mineral interests | (2,814) | (3,058) | (3,130) | (289) | (312) | (278) |
| Interest income | 17 | – | 2 | – | – | – |
| Interest expense | (2,453) | (2,599) | (2,972) | (47) | (44) | (2) |
| Income taxes | (2,804) | (1,448) | 77 | (65) | (222) | (69) |
| **Net income** | **12,791** | **5,600** | **(2,399)** | **123** | **620** | **133** |
| **Other comprehensive income** | **526** | **323** | **(323)** | **(189)** | **(308)** | **194** |
| % owned | | | | 50.00 % | 50.00 % | 50.00 % |
| Equity value | 4,315 | 2,725 | 1,602 | 1,573 | 1,769 | 1,721 |
| *including goodwill and identifiable assets* | *465* | *502* | *546* | – | – | – |
| Profit/(loss) | 2,616 | 1,119 | (633) | 62 | 310 | 67 |
| Share of Other Comprehensive Income, net amount | 137 | 84 | (84) | (59) | (150) | 87 |
| Dividends paid to TotalEnergies | 1,166 | 81 | – | 162 | 109 | 102 |

TotalEnergies’ interests in joint ventures operating liquefaction plants have been combined. The amounts include investments in Yamal LNG in Russia (20.02% direct holding) and Ichthys LNG in Australia (26.00%).

Hanwha TotalEnergies Petrochemical Co is a South Korean company that operates a petrochemical complex in Daesan (condensate separator, steam cracker, styrene, paraxylene, polyolefins).

Off balance sheet commitments relating to joint ventures are disclosed in Note 13 of the Consolidated Financial Statements.

## C) Other equity affiliates

In TotalEnergies share, the main aggregated financial items in equity affiliates including assets held for sale, which have not been presented individually are as follows:

| As of December 31, | 2022 | | 2021 | | 2020 | |
|---|---|---|---|---|---|---|
| (M$) | Associates | Joint ventures | Associates | Joint ventures | Associates | Joint ventures |
| Non Current assets | 6,014 | 17,484 | 5,987 | 9,745 | 5,454 | 7,002 |
| Current assets | 1,591 | 3,485 | 1,849 | 1,799 | 1,299 | 1,671 |
| **TOTAL ASSETS** | **7,605** | **20,969** | **7,836** | **11,544** | **6,753** | **8,673** |
| Shareholder's equity - TotalEnergies share | 1,423 | 4,042 | 1,366 | 2,531 | 1,183 | 1,963 |
| Shareholder's equity - Non controlling interests | – | 1,414 | – | – | – | – |
| Non current liabilities | 5,296 | 12,422 | 5,455 | 7,460 | 4,881 | 5,469 |
| Current liabilities | 886 | 3,091 | 1,015 | 1,553 | 689 | 1,241 |
| **TOTAL LIABILITIES** | **7,605** | **20,969** | **7,836** | **11,544** | **6,753** | **8,673** |

| For the year ended December 31, | 2022 | | 2021 | | 2020 | |
|---|---|---|---|---|---|---|
| (M$) | Associates | Joint ventures | Associates | Joint ventures | Associates | Joint ventures |
| Revenues from sales | 2,338 | 7,202 | 2,450 | 4,850 | 2,154 | 3,116 |
| **Net income** | **488** | **436** | **514** | **381** | **478** | **202** |
| Non controlling interests | – | 110 | – | – | – | – |
| Share of other comprehensive income items | 140 | 52 | 68 | 38 | (29) | (130) |
| Equity value | 2,285 | 8,735 | 2,188 | 4,782 | 2,049 | 3,779 |
| Profit/(Loss) | 436 | (3) | (992) | 823 | 452 | 265 |
| Dividends paid to TotalEnergies | 469 | 109 | 498 | 96 | 409 | 59 |

## 8.2 OTHER INVESTMENTS

**Accounting principles**

Other investments are equity instruments and are measured according to IFRS 9 at fair value through profit and loss (default option). On initial recognition, the standard allows to make an election to record the changes of fair value in other comprehensive income. For these equity instruments, only dividends can be recognized in profit or loss.

TotalEnergies recognizes changes in fair value in equity or in profit or loss according to the option chosen on an instrument by instrument basis.

For quoted shares on active markets, this fair value is based on the market price.

| As of December 31, 2022 (M$) | As of January 1, 2022 | Increase - Decrease | Change in fair value | As of December 31, 2022 |
|---|---|---|---|---|
| Enphase Energy Inc | 457 | (579) | 122 | – |
| Other shares through fair value OCI (unit value < $50M) | 116 | 13 | (10) | 119 |
| **Equity instruments recorded through fair value OCI** | **573** | **(566)** | **112** | **119** |
| BTC Limited | 14 | – | (9) | 5 |
| Hubei Cathay Smart Energy Fund | 36 | 7 | 11 | 54 |
| Other shares through fair value P&L (unit value < $50M) | 1,002 | (54) | (75) | 873 |
| **Equity instruments recorded through fair value P&L** | **1,052** | **(47)** | **(73)** | **932** |
| **TOTAL EQUITY INSTRUMENTS** | **1,625** | **(613)** | **39** | **1,051** |

| As of December 31, 2021 (M$) | As of January 1, 2021 | Increase - Decrease | Change in fair value | As of December 31, 2021 |
|---|---|---|---|---|
| Enphase Energy Inc | 613 | (177) | 21 | 457 |
| Tellurian Investments Inc. | 57 | (111) | 54 | – |
| Other shares through fair value OCI (unit value < $50M) | 113 | 12 | (9) | 116 |
| **Equity instruments recorded through fair value OCI** | **783** | **(276)** | **66** | **573** |
| BBPP | 58 | (58) | – | – |
| BTC Limited | 27 | – | (13) | 14 |
| Hubei Cathay Smart Energy Fund | 36 | 1 | (1) | 36 |
| Other shares through fair value P&L (unit value < $50M) | 1,103 | (107) | 6 | 1,002 |
| **Equity instruments recorded through fair value P&L** | **1,224** | **(164)** | **(8)** | **1,052** |
| **TOTAL EQUITY INSTRUMENTS** | **2,007** | **(440)** | **58** | **1,625** |

| As of December 31, 2020 (M$) | As of January 1, 2020 | Increase - Decrease | Change in fair value | As of December 31, 2020 |
|---|---|---|---|---|
| Enphase Energy Inc | 173 | (251) | 691 | 613 |
| Tellurian Investments Inc. | 207 | (1) | (149) | 57 |
| Other shares through fair value OCI (unit value < $50M) | 126 | (4) | (9) | 113 |
| **Equity instruments recorded through fair value OCI** | **506** | **(256)** | **533** | **783** |
| BBPP | 62 | (4) | – | 58 |
| BTC Limited | 28 | – | (1) | 27 |
| Hubei Cathay Smart Energy Fund | 15 | 21 | – | 36 |
| Tas Helat Marketing Company [(a)] | 108 | (108) | – | – |
| Other shares through fair value P&L (unit value < $50M) | 1,059 | 63 | (19) | 1,103 |
| **Equity instruments recorded through fair value P&L** | **1,272** | **(28)** | **(20)** | **1,224** |
| **TOTAL EQUITY INSTRUMENTS** | **1,778** | **(284)** | **513** | **2,007** |

(a) Tas Helat Marketing Company is a joint venture with SAUDI ARAMCO to develop the retail business. It was consolidated in 2020 (using the equity method).

## 8.3 Related parties

The main transactions as well as receivable and payable balances with related parties (principally non-consolidated subsidiaries and equity affiliates) are detailed as follows:

| As of December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Balance sheet** | | | |
| *Receivables* | | | |
| Debtors and other debtors | 1,231 | 809 | 545 |
| Loans (excl. loans to equity accounted for affiliates) | 184 | 113 | 89 |
| *Payables* | | | |
| Creditors and other creditors | 1,610 | 1,347 | 662 |
| Debts | 5 | 2 | 3 |

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Statement of income** | | | |
| Sales | 6,806 | 4,250 | 3,134 |
| Purchases | (25,656) | (13,473) | (7,183) |
| Financial income | 3 | – | 1 |
| Financial expense | (9) | (8) | (6) |

## 8.4 Compensation for the administration and management bodies

The aggregated amount of direct and indirect compensation accounted by the French and foreign affiliates of the Company, for all executive officers of TotalEnergies as of December 31 and for the members of the Board of Directors who are employees of TotalEnergies, is detailed below.

As of December 31, 2022, December 31, 2021, and December 31, 2020, TotalEnergies Executive Officers are the members of the Executive Committee, i.e. eight people and there are three employees members of the Board of Directors.

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of people | 11 | 11 | 11 |
| Direct or indirect compensation | 12.4 | 11.9 | 12.6 |
| Pension expenses [(a)] | 1.9 | 1.4 | 1.5 |
| Share-based payments expense (IFRS 2) [(b)] | 7.7 | 4.9 | 7.2 |

(a) The benefits provided for Executive Officers of the Company and the members of the Board of Directors, who are employees of the Company, include severance to be paid upon retirement, supplementary pension schemes and insurance plans, which represent a commitment of $64.3 million as of December 31, 2022 (against $90.7 million as of December 31, 2021 and $129.0 million as of December 31, 2020). Converted into Euros, this commitment amounts to €60.3 million as of December 31, 2022 (against €80.1 million as of December 31, 2021 and €105.2 million as of December 31, 2020). The decrease is related to the increase in discount rates.

(b) Share-based payments expense computed for the Executive Officers and the members of the Board of Directors who are employees of TotalEnergies and based on the principles of IFRS 2 "Share-based payments" described in Note 9. The increase of the expense between 2021 and 2022 is mainly related to the increase in the TotalEnergies share price.

The compensation allocated to members of the Board of Directors as directors' fees totaled $1.84 million in 2022 ($2.06 million in 2021 and $1.44 million in 2020).

# Note 9 Shareholders' equity and share-based payments

## 9.1 SHAREHOLDERS' EQUITY

### Number of TotalEnergies shares and rights attached

As of December 31, 2022, the share capital of TotalEnergies SE amounts to €6,547,828,212.50, divided into 2,619,131,285 shares, with a par value of €2.50. There is only one category of shares. The shares may be held in either registered or bearer form.

The authorized share capital amounts to 3,664,966,081 shares as of December 31, 2022, compared to 3,686,636,841 shares as of December 31, 2021 and 3,668,371,962 shares as of December 31, 2020.

A double voting right is assigned to shares that are fully-paid and held in registered form in the name of the same shareholder for at least two years, with due consideration for the total portion of the share capital represented. A double voting right is also assigned, in the event of an increase in share capital by incorporation of reserves, profits or premiums, to registered shares granted without charge to a shareholder due to shares already held that are entitled to this right.

Pursuant to the Corporation's bylaws (Statutes), no shareholder may cast a vote at a Shareholders' Meeting, either by himself or through an agent, representing more than 10% of the total voting rights for the Corporation's shares. This limit applies to the aggregated amount of voting rights held directly, indirectly or through voting proxies. However, in the case of double voting rights, this limit may be extended up to 20% of the total voting rights for the Corporation's shares.

These restrictions no longer apply if any individual or entity, acting alone or in concert, acquires at least two-thirds of the total share capital of the Corporation, directly or indirectly, following a public tender offer for all of the Corporation's shares.

### Share cancellation

The Board of Directors, pursuant to the authorization granted by the Extraordinary Shareholders' Meeting on May 26, 2017, in the thirteenth resolution to reduce, on one or more occasions, the Corporation's share capital by cancelling shares, in accordance with the provisions of Articles L. 225-209 (became L. 22-10-62) and L. 225-213 of the French Commercial Code, has proceeded with the following cancellation of TotalEnergies shares:

| Fiscal year | Board of Directors' decision date | Number of shares bought back and cancelled for the purpose of the shareholder policy | Percentage of the share capital cancelled[a] |
|---|---|---|---|
| 2022 | February 9, 2022 | 30,665,526 shares bought back between November 8 and December 22, 2021 | 1.16 % |
| 2021 | February 8, 2021 | 23,284,409 shares bought back between October 31, 2019 and March 9, 2020 | 0.88 % |
| 2020 | | n/a[b] | |

[a] Percentage of the share capital that the cancelled shares represented on the operations' date.
[b] TotalEnergies SE did not cancel any shares in the fiscal year 2020.

Under the terms of the twenty-third resolution of the General Meeting of Shareholders of May 25, 2022, the Board of Directors is authorized to cancel the shares of the Company within the limit of 10% of the capital of the Company existing on the date of the operation per period of 24 months.

### Variation of the number of shares composing the share capital

| | | |
|---|---|---|
| **AS OF DECEMBER 31, 2019 (a)** | | **2,601,881,075** |
| | Deferred contribution pursuant to the 2015 capital increase reserved for employees | 18,879 |
| | 2020 Capital increase reserved for employees | 13,160,383 |
| | Capital increase as payment of the scrip dividend (final 2019 dividend) | 38,063,688 |
| **AS OF DECEMBER 31, 2020 (b)** | | **2,653,124,025** |
| | Capital reduction by cancellation of treasury shares | (23,284,409) |
| | 2021 Capital increase reserved for employees | 10,589,713 |
| **AS OF DECEMBER 31, 2021 (c)** | | **2,640,429,329** |
| | Capital reduction by cancellation of treasury shares | (30,665,526) |
| | Deferred contribution pursuant to the 2017 capital increase reserved for employees | 9,471 |
| | 2022 Capital increase reserved for employees | 9,358,011 |
| **AS OF DECEMBER 31, 2022 (d)** | | **2,619,131,285** |

(a) Including 15,474,234 treasury shares deducted from consolidated shareholders' equity.
(b) Including 24,392,703 treasury shares deducted from consolidated shareholders' equity.
(c) Including 33,841,104 treasury shares deducted from consolidated shareholders' equity.
(d) Including 137,187,667 treasury shares deducted from consolidated shareholders' equity.

### Capital increase reserved for employees

The Extraordinary Shareholders' Meeting ("**ESM**") of May 25, 2022, in its twenty-second resolution, granted the authority to the Board of Directors to carry out, a capital increase, in one or more occasions within a maximum period of twenty-six months, reserved to members (employees and retirees) of a company or group savings plan ("**ESOP**").

In fiscal year 2022, the Board of Directors of September 22, 2022, by virtue of the twenty-second resolution above-mentioned, decided to proceed with a capital increase reserved for employees and retirees within the limit of 18 million shares and has granted all powers to the Chairman and Chief Executive Officer to determine, in particular, the terms and conditions of subscription, the opening and closing dates of the subscription period and the subscription price to be issued. This capital increase is expected to be completed after the Shareholders' Meeting of May 26, 2023.

During the fiscal years 2022, 2021 and 2020, the Corporation completed the following ESOP, which terms are set out below:

| Fiscal year | 2022 | 2021 | 2020 |
|---|---|---|---|
| Date of the ESOP | June 8, 2022 | June 9, 2021 | June 11, 2020 |
| By virtue of | 17th resolution of the ESM of May 28, 2021 | 20th resolution of the ESM of May 29, 2020 | 18th resolution of the ESM of June 1, 2018 |
| *Subscriptions* | | | |
| Number of shares subscribed | 9,130,380 | 10,376,190 | 12,952,925 |
| Subscription price | 37.00 euros | 30.50 euros | 26.20 euros |
| *Free shares* | | | |
| Number of shares granted | 227,631 | 213,523 | 207,458 |
| By virtue of | | | 19th resolution of the ESM of June 1, 2018 |
| *Deferred contribution* | | | |
| Number of shares granted | – | – | 1,380 |
| Number of beneficiaries | – | – | 276 |
| End of the acquisition period | – | – | June 11, 2025 |

## Treasury shares

**Accounting principles**

Treasury shares held by TotalEnergies SE, or by its subsidiaries are deducted from consolidated shareholders' equity. Gains or losses on sales of treasury shares are excluded from the determination of net income and are recognized in shareholders' equity.

### Number of treasury shares held by TotalEnergies SE

| As of December 31, | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of treasury shares held by TotalEnergies SE | 137,187,667 | 33,841,104 | 24,392,703 |
| Percentage of share capital | 5.24 % | 1.28 % | 0.92 % |
| *Of which shares acquired with the intention to cancel them* | *128,869,261* | *30,665,526* | *23,284,409* |
| *Of which shares allocated to TotalEnergies share performance plans* | *8,231,365* | *3,103,018* | *1,055,446* |
| *Of which shares intended to be allocated to new share performance or purchase options plans* | *87,041* | *72,560* | *52,848* |

## Paid-in surplus

In accordance with French law, the paid-in surplus corresponds to premiums related to shares issuances, contributions or mergers of the parent company which can be capitalized or used to offset losses if the legal reserve has reached its minimum required level. The amount of the paid-in surplus may also be distributed subject to taxation except when it qualifies as a refund of shareholder contributions.

As of December 31, 2022, paid-in surplus relating to TotalEnergies SE amounted to €35,099 million (€36,030 million as of December 31, 2021 and €36,722 million as of December 31, 2020).

## Reserves

Under French law, 5% of net income must be transferred to the legal reserve until the legal reserve reaches 10% of the nominal value of the share capital. This reserve cannot be distributed to the shareholders other than upon liquidation but can be used to offset losses.

If wholly distributed, the unrestricted reserves of TotalEnergies SE would be taxed for an approximate amount of $227 million as of December 31, 2022 ($362 million as of December 31, 2021 and $492 million as of December 31, 2020) due to additional corporation tax applied on regulatory reserves so that they become distributable.

## Earnings per share

**Accounting principles**

Earnings per share is calculated by dividing net income (TotalEnergies share) by the weighted-average number of common shares outstanding during the period, excluding TotalEnergies shares held by TotalEnergies SE (Treasury shares) which are deducted from consolidated shareholders' equity.

Diluted earnings per share is calculated by dividing net income (TotalEnergies share) by the fully-diluted weighted-average number of common shares outstanding during the period. Treasury shares held by the parent company, TotalEnergies SE are deducted from consolidated shareholders' equity. This calculation also takes into account the dilutive effect of share grants and capital increases with a subscription period closing after the end of the fiscal year.

The weighted-average number of fully-diluted shares is calculated in accordance with the treasury stock method provided for by IAS 33. The proceeds, which would be recovered in the event of an exercise of rights related to dilutive instruments, are presumed to be a share buyback at the average market price over the period. The number of shares thereby obtained leads to a reduction in the total number of shares that would result from the exercise of rights.

In compliance with IAS 33, earnings per share and diluted earnings per share are based on the net income after deduction of the remuneration due to the holders of deeply subordinated notes.

The variation of both weighted-average number of shares and weighted-average number of diluted shares, as of December 31, respectively used in the calculation of earnings per share and fully-diluted earnings per share is detailed as follows:

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of shares as of January 1,** | **2,640,429,329** | **2,653,124,025** | **2,601,881,075** |
| TotalEnergies shares held by TotalEnergies SE or by its subsidiaries and deducted from shareholders' equity | (33,841,104) | (24,392,703) | (15,474,234) |
| **Evolution of the number of shares during the financial year pro-rated** | | | |
| Final grant of TotalEnergies performance shares | 5,152,336 | 3,810,430 | 2,154,064 |
| Capital increase reserved for employees [(a)] | 5,465,154 | 6,177,333 | 7,689,476 |
| Capital increase as payment of the scrip dividend | – | – | 17,445,857 |
| Buyback of TotalEnergies treasury shares including: | (62,498,318) | (7,296,460) | (11,669,489) |
| *Shares repurchased during the fiscal year to cancel the dilution caused by the scrip dividend payment and within the framework of the share buyback program* | *(58,621,530)* | *(3,762,794)* | *(10,666,710)* |
| *Shares repurchased during the fiscal year to cover for the performance share plans* | *(3,876,788)* | *(3,533,666)* | *(1,002,779)* |
| **WEIGHTED-AVERAGE NUMBER OF SHARES** | **2,554,707,397** | **2,631,422,625** | **2,602,026,749** |
| *Dilutive effect* | | | |
| Grant of TotalEnergies performance shares | 15,890,560 | 14,492,673 | – |
| Capital increase reserved for employees[(a)] | 1,584,068 | 1,552,947 | – |
| **WEIGHTED-AVERAGE NUMBER OF DILUTED SHARES AS OF DECEMBER 31,[(b)]** | **2,572,182,025** | **2,647,468,245** | **2,602,026,749** |

(a) Including the shares granted in consideration to the deferred contribution pursuant to the capital increase reserved for employees.
(b) In 2020, the effect generated by the grant of TotalEnergies performance shares and by the capital increase reserved for employees (19,007,836 shares) is anti-dilutive. In accordance with IAS 33, the weighted-average number of diluted shares is therefore equal to the weighted-average number of shares.

## Earnings per share in euros

The earnings per share in euros, converted from the earnings per share in dollars, by using the average exchange rate euro/dollar, is €7.51 per share for 2022 closing (€5.03 for 2021 closing). The fully-diluted earnings per share calculated by using the same method is €7.45 per share for 2022 closing (€5.01 for 2021 closing).

## Dividend

On February 7, 2023, the Board of Directors after approving the financial statements for fiscal year 2022, decided to propose to the Shareholders' Meeting on May 26, 2023 the distribution of an ordinary €2.81 dividend per share for fiscal year 2022. Subject to the Shareholders' decision on May 26, 2023, considering the first three interim dividends already decided by the Board of Directors, the final ordinary dividend for the fiscal year 2022 will be €0.74 per share.

| 2022 Dividend | First interim | Second interim | Third interim | Final |
|---|---|---|---|---|
| Amount | €0.69 | €0.69 | €0.69 | €0.74 |
| Set date | April 27, 2022 | July 27, 2022 | October 26, 2022 | February 7, 2023 |
| Ex-dividend date | September 21, 2022 | January 2, 2023 | March 22, 2023 | June 21, 2023 |
| Payment date | October 3, 2022 | January 12, 2023 | April 3, 2023 | July 3, 2023 |

Following its decisions of September 28, 2022, the Board of Directors of October 26, 2022 confirmed the distribution of a special interim dividend of €1 per share. This interim dividend has been detached on December 6, 2022 and paid in cash on December 16, 2022.

Subject to the Shareholders' decision on May 26, 2023, given the special interim dividend for the 2022 financial year already paid, this special dividend of €1 per share would not give rise to the payment of a balance.

| Special interim dividend | |
|---|---|
| Amount per share | €1.00 |
| Ex-dividend date | December 6, 2022 |
| Payment date | December 16, 2022 |

Subject to the Shareholder's decision on May 26, 2023, dividend for fiscal year 2022 (ordinary plus special) will amount to €3.81 per share.

## Issuances of perpetual subordinated notes

As of December 31, 2022, the amount of perpetual subordinated notes booked in TotalEnergies shareholders' equity is $13,882 million. The coupons attributable to the holders of these securities are recognized as a deduction from TotalEnergies shareholders' equity for an amount of $331 million for fiscal year 2022. The tax deduction due to these coupons is booked in the statement of income.

Based on their characteristics (mainly no mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) and in compliance with IAS 32 standard – *Financial instruments - Presentation*, these notes were recorded in equity.

On 17 January 2022, TotalEnergies SE issued two tranches of perpetual subordinated notes in euro:

- Deeply subordinated notes 2.000% perpetual maturity callable after 5.25 years (€1,000 million); and
- Deeply subordinated notes 3.250% perpetual maturity callable after 15 years (€750 million).

These two tranches were issued to refinance the €1,750 million perpetual subordinated notes carrying a coupon of 3.875% and whose redemption option was exercised on its first call date on May 18, 2022.

Summary of the perpetual deeply subordinated notes of TotalEnergies SE:

| Perpetual deeply subordinated notes issues by TotalEnergies SE | | | | Outstanding amount in M€ as of: | | |
|---|---|---|---|---|---|---|
| Date | Amount issued (M€) | Coupon (%) | First call date | December 31, 2022 | December 31, 2021 | December 31, 2020 |
| January 17, 2022 | 1,000 | 2.000 % | April 17, 2027 | 1,000 | – | – |
| | 750 | 3.250 % | January 17, 2037 | 750 | – | – |
| January 25, 2021 | 1,500 | 2.125 % | January 25, 2033 | 1,500 | 1,500 | – |
| | 1,500 | 1.625 % | January 25, 2028 | 1,500 | 1,500 | – |
| September 4, 2020 | 1,000 | 2.000 % | September 4, 2030 | 1,000 | 1,000 | 1,000 |
| April 4, 2019 | 1,500 | 1.750 % | April 4, 2024 | 1,500 | 1,500 | 1,500 |
| October 6, 2016 | 1,500 | 3.369 % | October 6, 2026 | 1,500 | 1,500 | 1,500 |
| | 1,000 | 2.708 % | May 5, 2023 | 1,000 | 1,000 | 1,000 |
| May 18, 2016 | 1,750 | 3.875 % | May 18, 2022 | – | 1,750 | 1,750 |
| February 26, 2015 | 2,500 | 2.250 % | February 26, 2021 | – | – | 297 |
| | 2,500 | 2.625 % | February 26, 2025 | 2,500 | 2,500 | 2,500 |
| **TOTAL** | | | | **12,250** | **12,250** | **9,547** |

## Other comprehensive income

Detail of other comprehensive income showing both items potentially reclassifiable and those not potentially reclassifiable from equity to net income is presented in the table below:

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Actuarial gains and losses | 574 | 1,035 | (212) |
| Change in fair value of investments in equity instruments | 112 | 66 | 533 |
| Tax effect | (96) | (411) | 65 |
| Currency translation adjustment generated by the parent company | (4,976) | (7,202) | 7,541 |
| **Sub-total items not potentially reclassifiable to profit & loss** | **(4,386)** | **(6,512)** | **7,927** |
| **Currency translation adjustment** | **1,734** | **4,216** | **(4,645)** |
| – Unrealized gain/(loss) of the period | 1,974 | 4,380 | (4,607) |
| – Less gain/(loss) included in net income | 240 | 164 | 38 |
| **Cash flow hedge** | **(5,452)** | **278** | **(313)** |
| – Unrealized gain/(loss) of the period | (4,190) | 109 | (175) |
| – Less gain/(loss) included in net income | 1,262 | (169) | 138 |
| **Variation of foreign currency basis spread** | **65** | **2** | **28** |
| – Unrealized gain/(loss) of the period | 26 | (47) | (22) |
| – Less gain/(loss) included in net income | (39) | (49) | (50) |
| **Share of other comprehensive income of equity affiliates, net amount** | **3,497** | **706** | **(1,831)** |
| – Unrealized gain/(loss) of the period | 1,071 | 626 | (1,841) |
| – Less gain/(loss) included in net income | (2,426) | (80) | (10) |
| **Other** | **(16)** | **(1)** | **(8)** |
| **Tax effect** | **1,449** | **(135)** | **72** |
| **Sub-total items potentially reclassifiable to profit & loss** | **1,277** | **5,066** | **(6,697)** |
| **TOTAL OTHER COMPREHENSIVE INCOME, NET AMOUNT** | **(3,109)** | **(1,446)** | **1,230** |

The currency translation adjustment by currency is detailed in the following table:

| As of December 31, 2022 (M$) | Total | Euro | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|
| Currency translation adjustment generated by the parent company | **(4,976)** | (4,976) | – | – | – |
| Currency translation adjustment | **1,734** | 3,120 | (592) | 4 | (798) |
| Currency translation adjustment of equity affiliates | **3,002** | (1,076) | 31 | 4,247 | (200) |
| **TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME** | **(240)** | (2,932) | (561) | 4,251 | (998) |

| As of December 31, 2021 (M$) | Total | Euro | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|
| Currency translation adjustment generated by the parent company | **(7,202)** | (7,202) | – | – | – |
| Currency translation adjustment | **4,216** | 4,654 | (180) | (1) | (257) |
| Currency translation adjustment of equity affiliates | **536** | 730 | 4 | (27) | (171) |
| **TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME** | **(2,450)** | (1,818) | (176) | (28) | (428) |

| As of December 31, 2020 (M$) | Total | Euro | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|
| Currency translation adjustment generated by the parent company | **7,541** | 7,541 | – | – | – |
| Currency translation adjustment | **(4,645)** | (4,668) | 115 | (12) | (80) |
| Currency translation adjustment of equity affiliates | **(1,657)** | (851) | (11) | (886) | 91 |
| **TOTAL CURRENCY TRANSLATION ADJUSTMENT RECOGNIZED IN COMPREHENSIVE INCOME** | **1,239** | 2,022 | 104 | (898) | 11 |

Tax effects relating to each component of other comprehensive income are as follows:

| | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| For the year ended December 31, (M$) | Pre-tax amount | Tax effect | Net amount | Pre-tax amount | Tax effect | Net amount | Pre-tax amount | Tax effect | Net amount |
| Actuarial gains and losses | 574 | (106) | 468 | 1,035 | (372) | 663 | (212) | 47 | (165) |
| Change in fair value of investments in equity instruments | 112 | 10 | 122 | 66 | (39) | 27 | 533 | 18 | 551 |
| Currency translation adjustment generated by the parent company | (4,976) | – | (4,976) | (7,202) | – | (7,202) | 7,541 | – | 7,541 |
| **Sub-total items not potentially reclassifiable to profit & loss** | **(4,290)** | **(96)** | **(4,386)** | **(6,101)** | **(411)** | **(6,512)** | **7,862** | **65** | **7,927** |
| Currency translation adjustment | 1,734 | – | 1,734 | 4,216 | – | 4,216 | (4,645) | – | (4,645) |
| Cash flow hedge | (5,452) | 1,466 | (3,986) | 278 | (130) | 148 | (313) | 79 | (234) |
| Variation of foreign currency basis spread | 65 | (17) | 48 | 2 | (5) | (3) | 28 | (7) | 21 |
| Share of other comprehensive income of equity affiliates, net amount | 3,497 | – | 3,497 | 706 | – | 706 | (1,831) | – | (1,831) |
| Other | (16) | – | (16) | (1) | – | (1) | (8) | – | (8) |
| **Sub-total items potentially reclassifiable to profit & loss** | **(172)** | **1,449** | **1,277** | **5,201** | **(135)** | **5,066** | **(6,769)** | **72** | **(6,697)** |
| **TOTAL OTHER COMPREHENSIVE INCOME** | **(4,462)** | **1,353** | **(3,109)** | **(900)** | **(546)** | **(1,446)** | **1,093** | **137** | **1,230** |

### Non-controlling interests

As of December 31, 2022, the subsidiaries with the most significant non-controlling interests are TotalEnergies Australia Unit Trust, TotalEnergies Gabon and TotalEnergies E&P Congo.

## 9.2 Share-based payments

**Accounting principles**

TotalEnergies SE may grant employees share subscription or purchase options plans, performance shares plans and offer its employees the opportunity to subscribe to reserved capital increases. These employee benefits are recognized as expenses with a corresponding credit to shareholders' equity.

The expense is equal to the fair value of the instruments granted. The expense is recognized on a straight-line basis over the period in which the advantages are acquired.

The fair value of the options is calculated using the Black-Scholes model at the grant date.

For performance shares plans, the fair value is calculated using the market price at the grant date after deducting the expected distribution rate during the vesting period.

The number of allocated equity instruments can be revised during the vesting period in cases of non-compliance with performance conditions, with the exception of those related to the market, or according to the rate of turnover of the beneficiaries.

The cost of employee-reserved capital increases is immediately expensed.

The cost of the capital increase reserved for employees consists of the cost related to the discount on the shares subscribed using the classic and/or the leveraged schemes, the cost of the free shares and the opportunity gain for the shares subscribed using the leveraged scheme, as applicable. This opportunity gain corresponds to the benefit of subscribing to the leveraged offer, rather than reproducing the same economic profile through the purchase of options in the market for individual investors.

### A. TotalEnergies share subscription or purchase option plans

The Extraordinary Shareholders' Meeting of May 29, 2020 authorised the Board of Directors, for a period of thirty-eight months to grant share subscription or purchase options. The Board of Directors has not decided any grant of TotalEnergies share subscription or purchase option plan by virtue of this authorisation and all previous option plans have expired.

## B. TotalEnergies Performance share plans

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
|---|---|---|---|---|---|---|---|
| Date of the Shareholders' Meeting | 5/24/2016 | 5/24/2016 | 6/1/2018 | 6/1/2018 | 6/1/2018 | 5/28/2021 | |
| Award date | 7/26/2017 | 3/14/2018 | 3/13/2019 | 3/18/2020 | 5/28/2021 | 3/16/2022 | |
| Date of the final award (end of the vesting period) | 7/27/2020 | 3/15/2021 | 3/14/2022 | 3/20/2023 | 5/29/2024 | 3/17/2025 | |
| Transfer authorized as from | 7/28/2022 | 3/16/2023 | 3/15/2024 | 3/21/2025 | 5/30/2026 | 3/17/2025 | |
| Grant date IFRS 2 fair value | 35.57 € | 36.22 € | 40.11 € | 12.40 € | 27.40 € | 37.22 € | |
| **Number of performance shares** | | | | | | | |
| **Outstanding as of January 1, 2020** | **5,607,859** | **6,028,435** | **6,407,643** | **–** | **–** | **–** | **18,043,937** |
| Notified | – | – | – | 6,727,352 | – | – | 6,727,352 |
| Cancelled | (1,313,687) | (55,830) | (44,289) | (18,691) | – | – | (1,432,497) |
| Finally granted | (4,294,172) | (10,740) | (10,890) | (1,773) | – | – | (4,317,575) |
| **Outstanding as of January 1, 2021** | **–** | **5,961,865** | **6,352,464** | **6,706,888** | **–** | **–** | **19,021,217** |
| Notified | – | – | – | – | 6,764,548 | – | 6,764,548 |
| Cancelled | – | (1,395,555) | (58,578) | (52,301) | (31,118) | – | (1,537,552) |
| Finally granted | – | (4,566,310) | (4,810) | (1,385) | (690) | – | (4,573,195) |
| **Outstanding as of January 1, 2022** | **–** | **–** | **6,289,076** | **6,653,202** | **6,732,740** | **–** | **19,675,018** |
| Notified | – | – | – | – | – | 7,353,271 | **7,353,271** |
| Cancelled | – | – | (127,852) | (65,561) | (57,410) | (27,690) | **(278,513)** |
| Finally granted | – | – | (6,161,224) | (12,680) | (13,750) | (8,000) | **(6,195,654)** |
| **OUTSTANDING AS OF DECEMBER 31, 2022** | **–** | **–** | **–** | **6,574,961** | **6,661,580** | **7,317,581** | **20,554,122** |

The performance shares, which are bought back by TotalEnergies SE on the market, are finally granted to their beneficiaries after a 3-year vesting period, from the date of the grant. The final grant is subject to a continued employment condition as well as:

- two performance conditions for the 2017 and 2018 Plans,
- three performance conditions for the 2019 Plan,
- four performance conditions for the 2020 Plan, and
- five performance conditions for the 2021 and 2022 Plans.

Moreover, the transfer of the performance shares finally granted under the 2017 to 2021 Plans will not be permitted until the end of a 2-year holding period from the date of the final grant.

### 2022 Plan

On March 16, 2022, the Board of Directors granted performance shares to certain employees and executive directors of TotalEnergies SE or its subsidiaries, subject to the fulfilment of the continued employment condition and five performance conditions.

The presence condition applies to all shares.

The performance conditions apply differently depending on the capacity of the beneficiaries. If all shares granted to senior executives are subject to performance conditions, the grant of the first 150 shares to non-senior executives are not subject to the performance condition abovementioned, which will, nonetheless, apply to any shares granted above this threshold.

The applicable performance conditions are as follows:

- For 25% of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return ("TSR") during the three vesting years (2022, 2023 and 2024). The TSR criterion considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For 25% of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share criterion expressed in dollars during the three vesting years (2022, 2023 and 2024).
- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven in view of the objective set for the three vesting years (2022, 2023 and 2024). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- For 15% of the shares, the change in the greenhouse gas (GHG) emissions on operated facilities (Scope 1+2) in relation to the achievement of the target to reduce the GHG emissions set for fiscal years 2022, 2023 and 2024.
- For 15% of the shares, the criterion of the change in the indirect GHG emissions related to the use by customers of the energy products (Scope 3[2]) in Europe in relation to the achievement of the target to reduce these GHG emissions set for fiscal years 2022, 2023 and 2024.

[1] Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
[2] GHG Protocol – Category 11

### C. Share-based payment expense

Share-based payment expense before tax was broken down as follows:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| TotalEnergies performance shares plans | 200 | 129 | 176 |
| SunPower plans [(a)] | 23 | 25 | 26 |
| Capital increase reserved for employees | 28 | 14 | 12 |
| **TOTAL** | **251** | **168** | **214** |

(a)Since September 30, 2022, TotalEnergies' 50.5% subsidiary in SunPower is accounted for using the equity method in the Company's consolidated accounts (see note 2 to the consolidated accounts)

The main assumptions used for the valuation of the cost of the capital increase reserved for employees in 2022 were the following:

| For the year ended December 31, | 2022 |
|---|---|
| Date of the Board of Directors meeting that decided the issue | September 15, 2021 |
| Reference price (€) [(a)] | 46.22 |
| Subscription price (€) [(b)] | 37.00 |
| Number of shares issued (in millions) [(c)] | 9.36 |

(a) Average of the closing prices of the TotalEnergies shares over the twenty trading sessions preceding April 27, 2022, being the date of the Chairman and CEO's decision setting the opening date of the subscription period and the subscription price.
(b) Reference price, reduced by a 20% discount and rounded off to the highest tenth of a euro.
(c) Including the free shares issued.

# Note 10 Payroll, staff and employee benefits obligations

## 10.1 EMPLOYEE BENEFITS OBLIGATIONS

**Accounting principles**

In accordance with the laws and practices of each country, TotalEnergies participates in employee benefit plans offering retirement, death and disability, healthcare and special termination benefits. These plans provide benefits based on various factors such as length of service, salaries, and contributions made to the governmental bodies responsible for the payment of benefits.

These plans can be either defined contribution or defined benefit pension plans and may be entirely or partially funded with investments made in various non-consolidated instruments such as mutual funds, insurance contracts, and other instruments.

For defined contribution plans, expenses correspond to the contributions paid.

Defined benefit obligations are determined according to the Projected Unit Method. Actuarial gains and losses may arise from differences between actuarial valuation and projected commitments (depending on new calculations or assumptions) and between projected and actual return of plan assets. Such gains and losses are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost is recorded immediately in the statement of income, whether vested or unvested.

The net periodic pension cost is recognized under "Other operating expenses".

Liabilities for employee benefits obligations consist of the following:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Pension benefits liabilities | 1,308 | 1,966 | 3,111 |
| Other benefits liabilities | 467 | 633 | 700 |
| Restructuring reserves (early retirement plans) | 54 | 73 | 106 |
| **TOTAL** | **1,829** | **2,672** | **3,917** |
| Net liabilities relating to assets held for sale | – | (1) | 1 |

### Description of plans and risk management

TotalEnergies operates, for the benefit of its current and former employees, both defined benefit plans and defined contribution plans.

TotalEnergies recognized a charge of $152 million for defined contribution plans in 2022 ($145 million in 2021 and $135 million in 2020).

TotalEnergies' main defined benefit pension plans are located in France, the United Kingdom, the United States, Belgium and Germany. Their main characteristics, depending on the country-specific regulatory environment, are the following:

- the benefits are usually based on the final salary and seniority;
- they are usually funded (pension fund or insurer);
- they are usually closed to new employees who benefit from defined contribution pension plans;
- they are paid in annuity or in lump sum.

The pension benefits include also termination indemnities and early retirement benefits. The other benefits are employer contributions to post-employment medical care.

In order to manage the inherent risks, TotalEnergies has implemented a dedicated governance framework to ensure the supervision of the different plans. These governance rules provide for:

- TotalEnergies' representation in key governance bodies or monitoring committees;
- the principles of the funding policy;
- the general investment policy, including for most plans:
  - the establishment of a monitoring committee to define and follow the investment strategy and performance,
  - the principles in respect of investment allocation are respected;
- a procedure to approve the establishment of new plans or the amendment of existing plans;
- the principles of administration, communication and reporting.

## Change in benefit obligations and plan assets

The fair value of the defined benefit obligation and plan assets in the Consolidated Financial Statements is detailed as follows:

| As of December 31, | Pension benefits | | | Other benefits | | |
|---|---|---|---|---|---|---|
| (M$) | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| **Change in benefit obligation** | | | | | | |
| Benefit obligation at beginning of year | 11,777 | 13,591 | 12,285 | 633 | 700 | 742 |
| Current service cost | 202 | 247 | 244 | 15 | 17 | 19 |
| Interest cost | 195 | 164 | 217 | 12 | 8 | 11 |
| Past service cost | 27 | (197) | – | 9 | (1) | – |
| Settlements | 5 | 3 | (10) | - | – | (3) |
| Plan participants' contributions | 17 | 17 | 10 | 1 | – | – |
| Benefits paid | (661) | (704) | (702) | (22) | (34) | (27) |
| Actuarial losses / (gains) | (2,502) | (734) | 818 | (155) | (11) | (89) |
| Foreign currency translation and other | (793) | (610) | 729 | (25) | (46) | 47 |
| **Benefit obligation at year-end** | **8,267** | **11,777** | **13,591** | **467** | **633** | **700** |
| *Of which plans entirely or partially funded* | *7,806* | *11,143* | *12,830* | *-* | *–* | *–* |
| *Of which plans not funded* | *461* | *634* | *761* | *467* | *633* | *700* |
| **Change in fair value of plan assets** | | | | | | |
| Fair value of plan assets at beginning of year | (10,231) | (10,580) | (9,769) | – | – | – |
| Interest income | (190) | (146) | (191) | – | – | – |
| Actuarial losses / (gains) | 2,083 | (290) | (517) | – | – | – |
| Settlements | 2 | – | 2 | – | – | – |
| Plan participants' contributions | (17) | (17) | (10) | – | – | – |
| Employer contributions | (260) | (303) | (229) | – | – | – |
| Benefits paid | 607 | 635 | 622 | – | – | – |
| Foreign currency translation and other | 700 | 470 | (488) | – | – | – |
| **Fair value of plan assets at year-end** | **(7,306)** | **(10,231)** | **(10,580)** | **–** | **–** | **–** |
| **UNFUNDED STATUS** | **961** | **1,546** | **3,011** | **467** | **633** | **700** |
| Asset ceiling | 46 | 41 | 36 | – | – | – |
| **NET RECOGNIZED AMOUNT** | **1,007** | **1,587** | **3,047** | **467** | **633** | **700** |
| Pension benefits and other benefits liabilities | 1,308 | 1,966 | 3,111 | 467 | 633 | 700 |
| Other non-current assets | (301) | (378) | (65) | – | – | – |
| Net benefit liabilities relating to assets held for sale | – | (1) | 1 | – | – | – |

As of December 31, 2022, the contribution from the main geographical areas for the net pension liability in the balance sheet is: 85% for the Euro area, (10)% for the United Kingdom and 24% for the United States.

The amounts recognized in the consolidated income statement and the consolidated statement of comprehensive income for defined benefit plans are detailed as follows:

| For the year ended December 31, | Pension benefits | | | Other benefits | | |
|---|---|---|---|---|---|---|
| (M$) | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Current service cost | 202 | 247 | 244 | 15 | 17 | 19 |
| Past service cost | 27 | (197) | – | 9 | (1) | – |
| Settlements | 7 | 3 | (7) | – | – | (3) |
| Net interest cost | 5 | 18 | 25 | 12 | 8 | 11 |
| **Benefit amounts recognized on Profit & Loss** | **241** | **71** | **262** | **36** | **24** | **27** |
| - Actuarial (Gains) / Losses | | | | | | |
| * Effect of changes in demographic assumptions | 1 | (71) | (12) | (9) | (8) | (3) |
| * Effect of changes in financial assumptions | (2,617) | (450) | 773 | (138) | 2 | (1) |
| * Effect of experience adjustments | 111 | (214) | 57 | (8) | (5) | (85) |
| * Actual return on plan assets | 2,083 | (294) | (517) | – | – | – |
| - Effect of asset ceiling | 3 | 5 | – | – | – | – |
| **Benefit amounts recognized on Equity** | **(419)** | **(1,024)** | **301** | **(155)** | **(11)** | **(89)** |
| **TOTAL BENEFIT AMOUNTS RECOGNIZED ON COMPREHENSIVE INCOME** | **(178)** | **(953)** | **563** | **(119)** | **13** | **(62)** |

## Expected future cash outflows

The average duration of accrued benefits is approximately 12 years for defined pension benefits and 15 years for other benefits. TotalEnergies expects to pay contributions of $234 million in respect of funded pension plans in 2023.

Estimated future benefits either financed from plan assets or directly paid by the employer are detailed as follows:

**Estimated future payments**

| (M$) | Pension benefits | Other benefits |
|---|---|---|
| 2023 | 586 | 25 |
| 2024 | 495 | 25 |
| 2025 | 504 | 25 |
| 2026 | 537 | 25 |
| 2027 | 589 | 25 |
| 2028-2032 | 3,059 | 121 |

## Type of assets

| Asset allocation | Pension benefits | | |
|---|---|---|---|
| as of December 31, | 2022 | 2021 | 2020 |
| Equity securities | 26% | 39% | 25% |
| Debt securities | 46% | 35% | 45% |
| Monetary | 3% | 1% | 2% |
| Annuity contracts | 17% | 17% | 20% |
| Real estate | 8% | 8% | 8% |

Investments on equity and debt markets are quoted on active markets.

## Main actuarial assumptions and sensitivity analysis

Assumptions used to determine benefits obligations:

| | Pension benefits | | | Other benefits | | |
|---|---|---|---|---|---|---|
| As of December 31, | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| **Discount rate (weighted average for all regions)** | ***4.39%*** | ***1.82%*** | ***1.28%*** | ***4.45%*** | ***1.83%*** | ***1.41%*** |
| *Of which Euro zone* | *3.70%* | *0.99%* | *0.52%* | *3.48%* | *1.05%* | *0.68%* |
| *Of which United States* | *4.50%* | *3.00%* | *2.50%* | *4.50%* | *3.00%* | *2.50%* |
| *Of which United Kingdom* | *4.75%* | *2.00%* | *1.50%* | – | – | – |
| **Inflation rate (weighted average for all regions)** | ***2.91%*** | ***2.41%*** | ***2.06%*** | – | – | – |
| *Of which Euro zone* | *2.49%* | *1.71%* | *1.24%* | – | – | – |
| *Of which United States* | *2.50%* | *2.50%* | *2.50%* | – | – | – |
| *Of which United Kingdom* | *3.25%* | *3.25%* | *3.00%* | – | – | – |

The discount rate retained is determined by reference to the high quality rates for AA-rated corporate bonds for a duration equivalent to that of the obligations. It derives from a benchmark per monetary area of different market data at the closing date.

Sensitivity to inflation in respect of defined benefit pension plans is not material in the United States.

A 0.5% increase or decrease in discount rates – all other things being equal - would have the following approximate impact on the benefit obligation:

| (M$) | 0.5% Increase | 0.5% Decrease |
|---|---|---|
| Benefit obligation as of December 31, 2022 | (510) | 623 |

A 0.5% increase or decrease in inflation rates – all other things being equal - would have the following approximate impact on the benefit obligation:

| (M$) | 0.5% Increase | 0.5% Decrease |
|---|---|---|
| Benefit obligation as of December 31, 2022 | 303 | (284) |

## 10.2 Payroll and staff

| For the year ended December 31, | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Personnel expenses** (M$) | | | |
| Wages and salaries (including social charges) | 9,002 | 9,207 | 8,908 |
| **TotalEnergies employees at December 31,** | | | |
| ***France (DROM COM includ.)*** | | | |
| ● Management | 14,130 | 13,903 | 14,016 |
| ● Other | 20,829 | 21,232 | 21,886 |
| ***International*** | | | |
| ● Management | 18,183 | 17,346 | 17,102 |
| ● Other | 48,137 | 48,828 | 52,472 |
| **TOTAL** | **101,279** | **101,309** | **105,476** |

The number of employees includes only employees of fully consolidated subsidiaries.

# Note 11 Income taxes

**Accounting principles**

Income taxes disclosed in the statement of income include current tax expenses (or income) and deferred tax expenses (or income).

Current tax expenses (or income) are the estimated amount of the tax due for the taxable income of the period.

Deferred income taxes are recorded based on the temporary differences between the carrying amounts of assets and liabilities recorded in the balance sheet and their tax bases, and on carry-forwards of unused tax losses and other tax credits.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted at the balance sheet date. The tax rates used depend on the timing of reversals of temporary differences, tax losses and other tax credits. The effect of a change in tax rate is recognized either in the Consolidated Statement of Income or in shareholders' equity depending on the item it relates to.

Deferred tax resulting from temporary differences between the carrying amounts of equity-method investments and their tax bases are recognized. The deferred tax calculation is based on the expected future tax effect (dividend distribution rate or tax rate on capital gains).

Income taxes are detailed as follows:

| For the year ended December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Current income taxes | (19,825) | (8,158) | (2,450) |
| Deferred income taxes | (2,417) | (1,429) | 2,132 |
| **TOTAL INCOME TAXES** | **(22,242)** | **(9,587)** | **(318)** |

Before netting deferred tax assets and liabilities by fiscal entity, the components of deferred tax balances are as follows:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Net operating losses and tax carry forwards | 3,600 | 5,129 | 5,106 |
| Employee benefits | 409 | 586 | 1,004 |
| Other temporary non-deductible provisions | 8,813 | 8,235 | 9,068 |
| Differences in depreciations | (14,692) | (15,233) | (14,641) |
| Other temporary tax deductions | (4,102) | (4,221) | (3,847) |
| **NET DEFERRED TAX LIABILITY** | **(5,972)** | **(5,504)** | **(3,310)** |

The reserves of TotalEnergies subsidiaries that would be taxable if distributed but for which no distribution is planned, and for which no deferred tax liability has therefore been recognized, totaled $1,103 million as of December 31, 2022.

Deferred tax assets not recognized as of December 31, 2022, amount to $3,854 million as their future recovery was not regarded as probable given the expected results of the entities. Particularly in the Exploration & Production segment, when the affiliate or the field concerned is in its exploration phase, the net operating losses created during this phase will be useable only if a final investment and development decision is made. Accordingly, the time limit for the utilization of those net operating losses is not known.

Deferred tax assets not recognized relate notably to France for an amount of $1,189 million and to Canada for an amount of $998 million.

After netting deferred tax assets and liabilities by fiscal entity, deferred taxes are presented on the balance sheet as follows:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Deferred tax assets | 5,049 | 5,400 | 7,016 |
| Deferred tax liabilities | (11,021) | (10,904) | (10,326) |
| **NET AMOUNT** | **(5,972)** | **(5,504)** | **(3,310)** |

The net deferred tax variation in the balance sheet is analyzed as follows:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Opening balance** | **(5,504)** | **(3,310)** | **(5,642)** |
| Deferred tax on income | (2,417) | (1,429) | 2,132 |
| Deferred tax on shareholders' equity [(a)] | 1,353 | (546) | 137 |
| Changes in scope of consolidation and others | 218 | (315) | 76 |
| Currency translation adjustment | 378 | 96 | (13) |
| **CLOSING BALANCE** | **(5,972)** | **(5,504)** | **(3,310)** |

(a) This amount includes mainly deferred taxes on actuarial gains and losses, current income taxes and deferred taxes for changes in fair value of investments inequity instruments, as well as deferred taxes related to the cash flow hedge (see Note 9 to the Consolidated Financial Statements).

### Reconciliation between provision for income taxes and pre-tax income

| For the year ended December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Consolidated net income | 21,044 | 16,366 | (7,336) |
| Income taxes | 22,242 | 9,587 | 318 |
| **Pre-tax income** | **43,286** | **25,953** | **(7,018)** |
| French statutory tax rate | 25.83% | 28.41% | 32.02% |
| **Theoretical tax charge** | **(11,181)** | **(7,373)** | **2,247** |
| Difference between French and foreign income tax rates | (9,625) | (3,754) | (1,109) |
| Tax effect of equity in income (loss) of affiliates | (489) | 977 | 145 |
| Permanent differences exponent [(a)] | (676) | 738 | 665 |
| Adjustments on prior years income taxes | 64 | 109 | (31) |
| Adjustments on deferred tax related to changes in tax rates | (610) | (119) | (204) |
| Variation of deferred tax assets not recognized | 275 | (165) | (2,031) |
| **INCOME TAXES IN THE STATEMENT OF INCOME** | **(22,242)** | **(9,587)** | **(318)** |

(a) Including the European Solidarity Contribution 2022 for a total of €0.9 billion. The European Solidarity Contribution 2022, including the 2022 contribution on the sub-marginal rent of electricity production, amounts to €1 billion or $1.1 billion.

The French statutory tax rate includes the standard corporate tax rate (25%), additional and exceptional applicable taxes that bring the overall tax rate to 25.83% in 2022 (versus 28.41% in 2021 and 32.02% in 2020).

Permanent differences are mainly due to impairment of goodwill and to dividends from non-consolidated companies as well as the specific taxation rules applicable to certain activities.

### Schedule of losses and tax credits carried forward

TotalEnergies has deferred tax assets related to losses and carried forward tax credit which expire according to the following years:

| As of December 31,<br>(M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| 2021 | | | 69 |
| 2022 | | 27 | 26 |
| 2023 | 4 | 1 | 7 |
| 2024 | 2 | 5 | 2 |
| 2025[(a)] | 4 | 25 | 1,643 |
| 2026[(b)] | 8 | 1,652 | |
| 2027 and after | 1,220 | | |
| Unlimited | 2,362 | 3,419 | 3,359 |
| **TOTAL** | **3,600** | **5,129** | **5,106** |

(a) 2025 and after for 2020.
(b) 2026 and after for 2021.

As of December 31, 2022 the schedule of deferred tax assets related to carried forward tax credits on net operating losses for the main countries is as follows:

| | Tax | | | |
|---|---|---|---|---|
| As of December 31, 2022<br>(M$) | Australia | United States | Canada | France |
| 2023 | | | | |
| 2024 | | | | |
| 2025 | | | | |
| 2026 | | | 32 | |
| 2027 and after | | 326 | 812 | |
| Unlimited | 820 | 581 | | 487 |
| **TOTAL** | **820** | **907** | **843** | **487** |

# Note 12 Provisions and other non-current liabilities

## 12.1 PROVISIONS AND OTHER NON-CURRENT LIABILITIES

**Accounting principles**

A provision is recognized when TotalEnergies has a present obligation, legal or constructive, as a result of a past event for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimate.

Provisions and non-current liabilities are comprised of liabilities for which the amount and the timing are uncertain. They arise from environmental risks, legal and tax risks, litigation and other risks.

| As of December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Litigations and accrued penalty claims | 529 | 285 | 320 |
| Provisions for environmental contingencies | 751 | 812 | 960 |
| Asset retirement obligations | 13,110 | 14,976 | 15,368 |
| Other non-current provisions | 3,633 | 2,766 | 2,868 |
| *of which restructuring activities* | *282* | *506* | *293* |
| *of which financial risks related to non-consolidated and equity accounted for affiliates* | *1,582* | *265* | *134* |
| *of which contingency reserve on solar panels warranties (SunPower)* | *–* | *83* | *82* |
| Other non-current liabilities | 3,379 | 1,430 | 1,409 |
| **TOTAL** | **21,402** | **20,269** | **20,925** |

In 2022, litigation reserves amount to $529 million of which $257 million in the Exploration & Production, notably in Brazil, Bolivia and Angola, and $159 million in Refining-Chemicals.

In 2021, litigation reserves amounted to $285 million of which $192 million in the Exploration & Production, notably in Brazil, Bolivia and Angola.

In 2020, litigation reserves amounted to $320 million of which $208 million in the Exploration & Production, notably in Brazil and Angola.

Other non-current liabilities mainly include debts whose maturity is more than one year related to fixed assets acquisitions.

### Changes in provisions and other non-current liabilities

Changes in provisions and other non-current liabilities are as follows:

| (M$) | As of January, 1 | Allowances | Reversals | Currency translation adjustment | Other | As of December, 31 |
|---|---|---|---|---|---|---|
| **2022** | **20,269** | **2,724** | **(1,397)** | **(834)** | **640** | **21,402** |
| *of which provisions for financial risks* | – | *1,363* | *(15)* | – | – | – |
| *of which asset retirement obligations* | – | *430* | *(418)* | – | – | – |
| *of which provisions for environmental contingencies* | – | *97* | *(133)* | – | – | – |
| *of which provisions for restructuring of activities* | – | *31* | *(230)* | – | – | – |
| **2021** | **20,925** | **1,446** | **(1,560)** | **(404)** | **(138)** | **20,269** |
| *of which asset retirement obligations* | – | *449* | *(527)* | – | – | – |
| *of which provisions for environmental contingencies* | – | *43* | *(178)* | – | – | – |
| *of which provisions for restructuring of activities* | – | *415* | *(178)* | – | – | – |
| **2020** | **20,613** | **1,756** | **(1,378)** | **452** | **(518)** | **20,925** |
| *of which asset retirement obligations* | – | *607* | *(519)* | – | – | – |
| *of which provisions for environmental contingencies* | – | *217* | *(93)* | – | – | – |
| *of which provisions for restructuring of activities* | – | *271* | *(135)* | – | – | – |

### Asset retirement obligations

**Accounting principles**

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a discount rate to the amount of the liability. Given the long-term nature of expenditures related to our asset retirement obligations, the rate is determined by reference to the rates of high quality AA-rated corporate bonds on the USD area for a long-term horizon. The increase of the provision due to the passage of time is recognized as “Other financial expense”.

The discount rate used for the valuation of asset retirement obligation is 4% in 2022 and 3% in 2021 and in 2020 (the expenses are estimated at current currency values with an inflation rate of 2% in 2022 and 1.5% in 2021 and in 2020).

A decrease of 0.5% of this rate would increase the asset retirement obligation by $955 million, with a corresponding impact in tangible assets, and with a negative impact of approximately $76 million on the following years net income. Conversely, an increase of 0.5% would have a nearly symmetrical impact compared to the effect of the decrease of 0.5%.

Changes in the asset retirement obligation are as follows:

| (M$) | As of January 1, | Accretion | Revision in estimates | New obligations | Spending on existing obligations | Currency translation adjustment | Other | As of December 31, |
|---|---|---|---|---|---|---|---|---|
| **2022** | **14,976** | **430** | **(1,172)** | **198** | **(418)** | **(663)** | **(241)** | **13,110** |
| 2021 | 15,368 | 449 | (109) | 228 | (527) | (194) | (239) | 14,976 |
| 2020 | 14,492 | 607 | 526 | 87 | (519) | 284 | (109) | 15,368 |

## 12.2 OTHER RISKS AND CONTINGENT LIABILITIES

There are no governmental, legal or arbitration proceedings, including any proceeding of which the Corporation is aware that are pending or threatened against the Company, that could have, or could have had during the last 12 months, a material impact on TotalEnergies’ financial situation or profitability.

Described below are the main administrative, legal and arbitration proceedings in which the Corporation and the other entities of TotalEnergies are involved.

**FERC**

The Office of Enforcement of the US Federal Energy Regulatory Commission (FERC) began in 2015 an investigation in connection with the natural gas trading activities in the United States of TotalEnergies Gas & Power North America, Inc. (TGPNA), a US subsidiary of TotalEnergies. The investigation covered transactions made by TGPNA between June 2009 and June 2012 on the natural gas market. TGPNA received a Notice of Alleged Violations from FERC on September 21, 2015. On April 28, 2016, FERC issued an order to show cause to TGPNA and two of its former employees, and to the Corporation and TotalEnergies Gas & Power Ltd., regarding the same facts. The case was remanded on July 15, 2021 to the FERC Administrative Judge for hearing and consideration on the merits. TGPNA contests the claims brought against it.

A class action, launched to seek damages from these three companies, was dismissed by a judgment of the US District court of New York issued on March 15, 2017. The Court of Appeal upheld this judgment on May 4, 2018. In September 2019, a California city initiated another class action against the same parties based on the same legal ground. This class action was dismissed by the US District court of New York on June 8, 2020. This judgment was confirmed on appeal by a ruling issued on December 3, 2021.

**Dispute relating to Climate**

In France, the Corporation was assigned in January 2020 before Nanterre’s Court of Justice by certain associations and local communities in order to oblige the Company to complete its Vigilance Plan, by identifying in detail risks relating to a global warming above 1.5°C, as well as indicating the expected amount of future greenhouse gas emissions related to the Company's activities and its product utilization via third parties. TotalEnergies estimates that it has fulfilled its obligations regarding vigilance duty.

Also in France, several associations have brought a civil action against TotalEnergies and TotalEnergies Gaz et Electricité France to the Paris Court of Justice, seeking a ruling that the company's corporate communication and the advertising campaign broadcast since May 2021 after the change of name to TotalEnergies contain false or misleading environmental claims. TotalEnergies believes that these accusations are unfounded.

In the United States, two subsidiaries of TotalEnergies were assigned in 2017 by certain communities and associations for their liability in climate change before a California Court. These two subsidiaries, as well as the 34 other companies and professional associations, are contesting the State Court's competence to rule this request. in September 2020, the Attorney General of the State of Delaware launched an indemnity claim based upon climate change against the Corporation, Total Specialties USA (now known as TotalEnergies Marketing USA, inc.) and about 30 other oil companies before a court of this State. These Companies are contesting the competence of such court to rule this request.

# Note 13 Off balance sheet commitments and lease contracts

## 13.1 OFF BALANCE SHEET COMMITMENTS AND CONTRACTUAL OBLIGATIONS

| As of December 31, 2022 (M$) | Total | Maturity and installments: Less than 1 year | Between 1 and 5 years | More than 5 years |
|---|---|---|---|---|
| Non-current debt obligations net of hedging instruments *(Note 15)* | 35,684 | – | 14,229 | 21,455 |
| Current portion of non-current debt obligations net of hedging instruments *(Note 15)* | 5,328 | 5,328 | – | – |
| Lease obligations *(Note 13.2)* | 9,714 | 1,437 | 3,872 | 4,405 |
| Asset retirement obligations *(Note 12)* | 13,110 | 521 | 1,497 | 11,092 |
| **Contractual obligations recorded in the balance sheet** | **63,836** | **7,286** | **19,598** | **36,952** |
| Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)* | 1,830 | 783 | 610 | 437 |
| Purchase obligations | 139,050 | 11,286 | 40,516 | 87,248 |
| **Contractual obligations not recorded in the balance sheet** | **140,880** | **12,069** | **41,126** | **87,685** |
| **TOTAL OF CONTRACTUAL OBLIGATIONS** | **204,716** | **19,355** | **60,724** | **124,637** |
| Guarantees given to customs authorities | 2,003 | 1,904 | 53 | 46 |
| Guarantees given on borrowings | 20,218 | 2,519 | 5,814 | 11,885 |
| Guarantees related to sales of businesses | 310 | 157 | – | 153 |
| Guarantees of current liabilities | 62 | 61 | 1 | – |
| Guarantees to customers / suppliers | 23,757 | 3,539 | 2,275 | 17,943 |
| Letters of credit | 2,430 | 2,241 | 172 | 17 |
| Other operating commitments | 23,039 | 5,198 | 900 | 16,941 |
| **TOTAL OF OTHER COMMITMENTS GIVEN** | **71,819** | **15,619** | **9,215** | **46,985** |
| Assets received as collateral (security interests) | 45 | 14 | 10 | 21 |
| Sales obligations | 94,977 | 6,267 | 36,341 | 52,369 |
| Other commitments received | 25,650 | 19,261 | 2,817 | 3,572 |
| **TOTAL OF COMMITMENTS RECEIVED** | **120,672** | **25,542** | **39,168** | **55,962** |
| *Of which commitments given relating to joint ventures* | *32,054* | *2,006* | *5,666* | *24,382* |
| *Of which commitments given relating to associates* | *52,270* | *839* | *11,638* | *39,793* |

| As of December 31, 2021 (M$) | Total | Maturity and installments: Less than 1 year | Between 1 and 5 years | More than 5 years |
|---|---|---|---|---|
| Non-current debt obligations net of hedging instruments *(Note 15)* | 40,311 | – | 16,811 | 23,500 |
| Current portion of non-current debt obligations net of hedging instruments *(Note 15)* | 5,073 | 5,073 | – | – |
| Lease obligations *(Note 13.2)* | 9,034 | 1,390 | 3,321 | 4,323 |
| Asset retirement obligations *(Note 12)* | 14,976 | 610 | 1,751 | 12,615 |
| **Contractual obligations recorded in the balance sheet** | **69,394** | **7,073** | **21,883** | **40,438** |
| Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)* | 1,679 | 689 | 543 | 447 |
| Purchase obligations | 136,032 | 13,333 | 36,174 | 86,525 |
| **Contractual obligations not recorded in the balance sheet** | **137,711** | **14,022** | **36,717** | **86,972** |
| **TOTAL OF CONTRACTUAL OBLIGATIONS** | **207,105** | **21,095** | **58,600** | **127,410** |
| Guarantees given to customs authorities | 2,236 | 2,122 | 50 | 64 |
| Guarantees given on borrowings | 20,428 | 595 | 3,734 | 16,099 |
| Guarantees related to sales of businesses | 316 | 163 | – | 153 |
| Guarantees of current liabilities | 70 | 69 | 1 | – |
| Guarantees to customers / suppliers | 23,494 | 3,093 | 4,376 | 16,025 |
| Letters of credit | 2,993 | 2,869 | 122 | 2 |
| Other operating commitments | 21,138 | 3,058 | 1,594 | 16,486 |
| **TOTAL OF OTHER COMMITMENTS GIVEN** | **70,675** | **11,969** | **9,877** | **48,829** |
| Assets received as collateral (security interests) | 62 | 37 | 16 | 9 |
| Sales obligations | 92,555 | 7,565 | 33,271 | 51,719 |
| Other commitments received | 22,326 | 17,285 | 1,755 | 3,286 |
| **TOTAL OF COMMITMENTS RECEIVED** | **114,943** | **24,887** | **35,042** | **55,014** |
| *Of which commitments given relating to joint ventures* | *33,373* | *253* | *7,353* | *25,767* |
| *Of which commitments given relating to associates* | *34,491* | *727* | *9,110* | *24,654* |

| As of December 31, 2020 (M$) | Total | Maturity and installments: Less than 1 year | Between 1 and 5 years | More than 5 years |
|---|---|---|---|---|
| Non-current debt obligations net of hedging instruments *(Note 15)* | 48,705 | – | 22,745 | 25,960 |
| Current portion of non-current debt obligations net of hedging instruments *(Note 15)* | 4,674 | 4,674 | – | – |
| Lease obligations *(Note 13.2)* | 8,943 | 1,207 | 3,178 | 4,558 |
| Asset retirement obligations *(Note 12)* | 15,368 | 463 | 1,840 | 13,065 |
| **Contractual obligations recorded in the balance sheet** | **77,690** | **6,344** | **27,763** | **43,583** |
| Lease obligations for low value assets, short term contracts or not yet commenced *(Note 13.2)* | 1,745 | 704 | 626 | 415 |
| Purchase obligations | 143,177 | 11,719 | 39,126 | 92,332 |
| **Contractual obligations not recorded in the balance sheet** | **144,922** | **12,423** | **39,752** | **92,747** |
| **TOTAL OF CONTRACTUAL OBLIGATIONS** | **222,612** | **18,767** | **67,515** | **136,330** |
| Guarantees given to customs authorities | 2,312 | 2,189 | 60 | 63 |
| Guarantees given on borrowings | 14,164 | 746 | 3,660 | 9,758 |
| Guarantees related to sales of businesses | 333 | 179 | – | 154 |
| Guarantees of current liabilities | 147 | 68 | 56 | 23 |
| Guarantees to customers / suppliers | 19,182 | 2,603 | 1,853 | 14,726 |
| Letters of credit | 2,432 | 2,297 | 135 | – |
| Other operating commitments | 23,879 | 3,224 | 3,002 | 17,653 |
| **TOTAL OF OTHER COMMITMENTS GIVEN** | **62,449** | **11,306** | **8,766** | **42,377** |
| Assets received as collateral (security interests) | 77 | 28 | 24 | 25 |
| Sales obligations | 80,521 | 7,001 | 29,362 | 44,158 |
| Other commitments received | 20,401 | 15,270 | 1,474 | 3,657 |
| **TOTAL OF COMMITMENTS RECEIVED** | **100,999** | **22,299** | **30,860** | **47,840** |
| *Of which commitments given relating to joint ventures* | *34,920* | *644* | *7,288* | *26,988* |
| *Of which commitments given relating to associates* | *51,795* | *999* | *8,664* | *42,132* |

## A. Contractual obligations

### Debt obligations

"Non-current debt obligations" are included in the items "Non-current financial debt" and "Non-current financial assets" of the Consolidated Balance Sheet. It includes the non-current portion of swaps hedging bonds and excludes non-current lease obligations of $8,277 million.

The current portion of non-current debt is included in the items "Current borrowings", "Current financial assets" and "Other current financial liabilities" of the Consolidated Balance Sheet. It includes the current portion of swaps hedging bonds and excludes the current portion of lease obligations of $1,437 million.

The information regarding contractual obligations linked to indebtedness is presented in Note 15 to the Consolidated Financial Statements.

### Lease contracts

The information regarding leases is presented in Note 13.2 to the Consolidated Financial Statements.

### Asset retirement obligations

This item represents the discounted present value of Exploration & Production and Integrated Gas, Renewables & Power asset retirement obligations, primarily asset removal costs at the completion date. The information regarding contractual obligations linked to asset retirement obligations is presented in Note 12 to the Consolidated Financial Statements.

### Purchase obligations

Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on the company and specify all significant terms, including the amount and the timing of the payments.

These obligations mainly include: unconditional hydrocarbon purchase contracts (except where an active, highly-liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase) in the Integrated Gas, Renewables & Power segment, reservation of transport capacities in pipelines, unconditional exploration works and development works in the Exploration & Production segment, and contracts for capital investment projects in the Refining & Chemicals segment.

## B. Other commitments given

### Guarantees given to customs authorities

These consist of guarantees given by TotalEnergies to customs authorities in order to guarantee the payments of taxes and excise duties on the importation of oil and gas products, mostly in France.

### Guarantees given on borrowings

TotalEnergies guarantees bank debt and lease obligations of certain non-consolidated subsidiaries and equity affiliates. Maturity dates vary, and guarantees will terminate on payment and/or cancellation of the obligation. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. As of December 31, 2022, the maturities of these guarantees are up to 2047.

As of December 31, 2022, the guarantees provided by TotalEnergies SE in connection with the financing of the Ichthys LNG project amount to $4,659 million. As of December 31, 2021, the guarantees amounted to $4,860 million.

As of December 31, 2022, the guarantees provided by TotalEnergies SE in connection with the financing of the Mozambique LNG project amount to $4,600 million as in 2021.

As of December 31, 2022, the guarantees provided by TotalEnergies SE in connection with the financing of the Yamal LNG project amount to $3,483 million. As of December 31, 2021, the guarantees amounted to $3,469 million.

As of December 31, 2022, guarantees provided by TotalEnergies SE in connection with the financing of the Bayport Polymers LLC project, amount to $1,820 million as in 2021.

As of December 31, 2022, guarantees provided by TotalEnergies Holdings in connection with the financing of the Seagreen project, amount to $1,204 million. As of December 31, 2021, the guarantees amounted to $481 million.

As of December 31, 2022, TotalEnergies SE has confirmed guarantees for TotalEnergies Refining Saudi Arabia SAS shareholders' advances for an amount of $1,025 million. As of December 31, 2021, the guarantees amounted to $1,120 million.

As of December 31, 2022, the guarantees provided by TotalEnergies SE in connection with the financing of the Arctic LNG2 project amount to $1,013 million. As of December 31, 2021, the guarantees amounted to $1,076 million.

### Indemnities related to sales of businesses

In the ordinary course of business, TotalEnergies executes contracts involving standard indemnities for the oil industry and indemnities specific to transactions such as sales of businesses. These indemnities might include claims against any of the following: environmental, tax and shareholder matters, intellectual property rights, governmental regulations and employment-related matters, and commercial contractual relationships. Performance under these indemnities would generally be triggered by a breach of terms of the contract or by a third party claim. TotalEnergies regularly evaluates the probability of having to incur costs associated with these indemnities.

### Other guarantees given

#### Non-consolidated subsidiaries

TotalEnergies also guarantees the current liabilities of certain non-consolidated subsidiaries. Performance under these guarantees would be triggered by a financial default of the entity.

#### Operating agreements

As part of normal ongoing business operations and consistent with generally accepted industry practices, TotalEnergies enters into numerous agreements with other parties. These commitments are often entered into for commercial purposes, for regulatory purposes or for other operating agreements.

### C. Commitments received

#### *Sales obligations*

These amounts represent binding obligations to sell goods, including in particular hydrocarbon sales contracts (except where an active, highly-liquid market exists and when the volumes are expected to be re-sold shortly after purchase).

## 13.2 LEASE CONTRACTS

**Accounting principles**

A lease contract is a contract that grants lessee the right to use an identified asset for a specified period of time in exchange for consideration. At lease inception, an asset corresponding to right of use and a debt are recognized in the lessee's balance sheet. Carrying value of right of use corresponds to present value of future lease payments plus any direct costs incurred for concluding the contract. Lease debt is recorded as a liability in the balance sheet under financial debts. Rights of use are depreciated over the useful lives applied by TotalEnergies.

Leases that are of short duration or that relate to low value assets are not recorded in the balance sheet, in accordance with the exemptions in the standard. They are presented as off-balance sheet commitments.

TotalEnergies mainly leases real estate, retail stations, ships, and other equipment (see Note 7 to the Consolidated Financial Statements).

The future minimum lease payments on leases to which TotalEnergies is committed are as follows:

| **For the year ended December 31, 2022**<br>(M$) | **Exempted contracts** | **Leases recorded in balance sheet** |
|---|---|---|
| 2023 | 783 | 2,189 |
| 2024 | 190 | 1,646 |
| 2025 | 154 | 1,255 |
| 2026 | 137 | 1,140 |
| 2027 | 129 | 993 |
| 2028 and beyond | 437 | 6,053 |
| **Total minimum payments** | **1,830** | **13,276** |
| Less financial expenses | | (3,562) |
| **Nominal value of contracts** | | **9,714** |
| Less current portion of lease contracts *(note 15)* | | (1,437) |
| **Non-current lease liabilities** | | **8,277** |

| **For the year ended December 31, 2021**<br>(M$) | **Exempted contracts** | **Leases recorded in balance sheet** |
|---|---|---|
| 2022 | 689 | 1,835 |
| 2023 | 194 | 1,347 |
| 2024 | 136 | 1,199 |
| 2025 | 111 | 1,097 |
| 2026 | 102 | 1,021 |
| 2027 and beyond | 447 | 6,017 |
| **Total minimum payments** | **1,679** | **12,516** |
| Less financial expenses | | (3,482) |
| **Nominal value of contracts** | | **9,034** |
| Less current portion of lease contracts *(note 15)* | | (1,390) |
| **Non-current lease liabilities** | | **7,644** |

| **For the year ended December 31, 2020**<br>(M$) | **Exempted contracts** | **Leases recorded in balance sheet** |
|---|---|---|
| 2021 | 704 | 1,659 |
| 2022 | 252 | 1,366 |
| 2023 | 159 | 1,117 |
| 2024 | 118 | 1,022 |
| 2025 | 97 | 964 |
| 2026 and beyond | 415 | 6,325 |
| **Total minimum payments** | **1,745** | **12,453** |
| Less financial expenses | | (3,510) |
| **Nominal value of contracts** | | **8,943** |
| Less current portion of lease contracts *(note 15)* | | (1,207) |
| **Non-current lease liabilities** | | **7,736** |

For the year ended December 31, 2022, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments is $701 million and $151 million, respectively.

For the year ended December 31, 2021, rental expense recorded in the income statement and incurred under short term leases or low value assets leases and under variable lease payments was $487 million and $242 million, respectively.

For the year ended December 31, 2020, rental expense recorded in the income statement and incurred under short team leases or low value assets leases and under variable lease payments was $600 million and $162 million, respectively.

Other information required on lease debts, notably their maturity, is presented in Note 15 to the consolidated financial statements.

# Note 14 Financial assets and liabilities analysis per instrument class and strategy

The financial assets and liabilities disclosed in the balance sheet are detailed as follows:

| As of December 31, 2022<br>(M$)<br>Assets / (Liabilities) | Amortized cost | Fair value through P&L | Other Comprehensive Income | Fair value of bonds hedging instruments | Total | Fair value |
|---|---|---|---|---|---|---|
| Equity affiliates: loans | 3,733 | – | – | – | 3,733 | **3,733** |
| Other investments | – | 932 | 119 | – | 1,051 | **1,051** |
| Non-current financial assets | 1,428 | 490 | – | 813 | 2,731 | **2,731** |
| Other non-current assets | 2,087 | – | – | – | 2,087 | **2,087** |
| Accounts receivable, net[b] | 24,378 | – | – | – | 24,378 | **24,378** |
| Other operating receivables | 8,069 | 19,529 | 691 | – | 28,289 | **28,289** |
| Current financial assets | 7,536 | 1,071 | 137 | 2 | 8,746 | **8,746** |
| Cash and cash equivalents | 33,026 | – | – | – | 33,026 | **33,026** |
| **Total financial assets** | **80,257** | **22,022** | **947** | **815** | **104,041** | **104,041** |
| **Total non-financial assets** | **–** | **–** | **–** | **–** | **199,823** | **–** |
| **TOTAL ASSETS** | **–** | **–** | **–** | **–** | **303,864** | **–** |
| Non-current financial debt[a] | (41,235) | (283) | – | (3,746) | (45,264) | **(43,471)** |
| Accounts payable[b] | (41,346) | – | – | – | (41,346) | **(41,346)** |
| Other operating liabilities | (16,412) | (17,994) | (780) | – | (35,186) | **(35,186)** |
| Current borrowings[a] | (15,502) | – | – | – | (15,502) | **(15,518)** |
| Other current financial liabilities | – | (226) | – | (262) | (488) | **(488)** |
| **Total financial liabilities** | **(114,495)** | **(18,503)** | **(780)** | **(4,008)** | **(137,786)** | **(136,009)** |
| **Total non-financial liabilities** | **–** | **–** | **–** | **–** | **(166,078)** | **–** |
| **TOTAL LIABILITIES** | **–** | **–** | **–** | **–** | **(303,864)** | **–** |

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(10,156) million and $10,156 million on accounts payable.

| As of December 31, 2021<br>(M$)<br>Assets / (Liabilities) | Amortized cost | Fair value through P&L | Other Comprehensive Income | Fair value of bonds hedging instruments | Total | Fair value |
|---|---|---|---|---|---|---|
| Equity affiliates: loans | 4,532 | – | – | – | 4,532 | **4,532** |
| Other investments | – | 1,052 | 573 | – | 1,625 | **1,625** |
| Non-current financial assets | 847 | 770 | – | 787 | 2,404 | **2,404** |
| Other non-current assets | 2,419 | – | – | – | 2,419 | **2,419** |
| Accounts receivable, net[b] | 21,983 | – | – | – | 21,983 | **21,983** |
| Other operating receivables | 7,141 | 21,067 | 1,345 | – | 29,553 | **29,553** |
| Current financial assets | 12,001 | 272 | – | 42 | 12,315 | **12,315** |
| Cash and cash equivalents | 21,342 | – | – | – | 21,342 | **21,342** |
| **Total financial assets** | **70,265** | **23,161** | **1,918** | **829** | **96,173** | **96,173** |
| **Total non-financial assets** | | | | | **197,285** | |
| **TOTAL ASSETS** | | | | | **293,458** | |
| Non-current financial debt[a] | (47,973) | (41) | – | (1,498) | (49,512) | **(53,144)** |
| Accounts payable[b] | (36,837) | – | – | – | (36,837) | **(36,837)** |
| Other operating liabilities | (11,128) | (15,266) | (900) | – | (27,294) | **(27,294)** |
| Current borrowings[a] | (15,035) | – | – | – | (15,035) | **(15,039)** |
| Other current financial liabilities | – | (56) | – | (316) | (372) | **(372)** |
| **Total financial liabilities** | **(110,973)** | **(15,363)** | **(900)** | **(1,814)** | **(129,050)** | **(132,686)** |
| **Total non-financial liabilities** | | | | | **(164,408)** | |
| **TOTAL LIABILITIES** | | | | | **(293,458)** | |

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(4,584) million and $4,584 million on accounts payable.

| As of December 31, 2020<br>(M$)<br>Assets / (Liabilities) | Amortized cost | Fair value through P&L | Other Comprehensive Income | Fair value of bonds hedging instruments | Total | Fair value |
|---|---|---|---|---|---|---|
| Equity affiliates: loans | 5,129 | – | – | – | 5,129 | **5,129** |
| Other investments | – | 1,224 | 783 | – | 2,007 | **2,007** |
| Non-current financial assets | 1,019 | 541 | – | 3,221 | 4,781 | **4,781** |
| Other non-current assets | 2,745 | – | – | – | 2,745 | **2,745** |
| Accounts receivable, net[(b)] | 14,068 | – | – | – | 14,068 | **14,068** |
| Other operating receivables | 6,615 | 1,428 | – | – | 8,043 | **8,043** |
| Current financial assets | 4,547 | 65 | – | 18 | 4,630 | **4,630** |
| Cash and cash equivalents | 31,268 | – | – | – | 31,268 | **31,268** |
| **Total financial assets** | **65,391** | **3,258** | **783** | **3,239** | **72,671** | **72,671** |
| **Total non-financial assets** | | | | | **193,461** | |
| **TOTAL ASSETS** | | | | | **266,132** | |
| Non-current financial debt[(a)] | (58,470) | (118) | – | (1,615) | (60,203) | **(66,210)** |
| Accounts payable[(b)] | (23,574) | – | – | – | (23,574) | **(23,574)** |
| Other operating liabilities | (10,635) | (3,666) | – | (1) | (14,302) | **(14,302)** |
| Current borrowings [(a)] | (17,099) | – | – | – | (17,099) | **(17,121)** |
| Other current financial liabilities | – | (99) | – | (104) | (203) | **(203)** |
| **Total financial liabilities** | **(109,778)** | **(3,883)** | **–** | **(1,720)** | **(115,381)** | **(121,410)** |
| **Total non-financial liabilities** | | | | | **(150,751)** | |
| **TOTAL LIABILITIES** | | | | | **(266,132)** | |

(a) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 15 to the Consolidated Financial Statements).
(b) The impact of offsetting on accounts receivable, net is $(1,844) million and $1,844 million on accounts payable.

# Note 15 Financial structure and financial costs

## 15.1 FINANCIAL DEBT AND DERIVATIVE FINANCIAL INSTRUMENTS

### A) Non-current financial debt and derivative financial instruments

**As of December 31, 2022**
(M$)

| (Assets) / Liabilities | Secured | Unsecured | Total |
|---|---|---|---|
| Non-current financial debt | 8,329 | 36,935 | 45,264 |
| *of which hedging instruments of non-current financial debt (liabilities)* | – | *3,746* | *3,746* |
| Non-current financial assets | (1,428) | (1,303) | (2,731) |
| *of which hedging instruments of non-current financial debt (assets)* | – | *(813)* | *(813)* |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,901** | **35,632** | **42,533** |
| Variable rate bonds or bonds after fair value hedge | – | 8,958 | 8,958 |
| Fixed rate bonds or bonds after cash flow hedge | – | 26,159 | 26,159 |
| Other floating rate debt | 13 | 227 | 240 |
| Other fixed rate debt | 39 | 496 | 535 |
| Lease obligations | 8,277 | – | 8,277 |
| Non-current financial assets excluding derivative financial instruments | (1,428) | – | (1,428) |
| Non-current instruments held for trading | – | (208) | (208) |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,901** | **35,632** | **42,533** |

**As of December 31, 2021**
(M$)

| (Assets) / Liabilities | Secured | Unsecured | Total |
|---|---|---|---|
| Non-current financial debt | 7,720 | 41,792 | 49,512 |
| *of which hedging instruments of non-current financial debt (liabilities)* | – | *1,498* | *1,498* |
| Non-current financial assets | (847) | (1,557) | (2,404) |
| *of which hedging instruments of non-current financial debt (assets)* | – | *(787)* | *(787)* |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,873** | **40,235** | **47,108** |
| Variable rate bonds or bonds after fair value hedge | – | 12,820 | 12,820 |
| Fixed rate bonds or bonds after cash flow hedge | – | 27,147 | 27,147 |
| Other floating rate debt | 15 | 634 | 649 |
| Other fixed rate debt | 61 | 363 | 424 |
| Lease obligations | 7,644 | – | 7,644 |
| Non-current financial assets excluding derivative financial instruments | (847) | (675) | (1,522) |
| Non-current instruments held for trading | – | (54) | (54) |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,873** | **40,235** | **47,108** |

**As of December 31, 2020**
(M$)

| (Assets) / Liabilities | Secured | Unsecured | Total |
|---|---|---|---|
| Non-current financial debt | 7,849 | 52,354 | 60,203 |
| *of which hedging instruments of non-current financial debt (liabilities)* | – | *1,615* | *1,615* |
| Non-current financial assets | (1,019) | (3,762) | (4,781) |
| *of which hedging instruments of non-current financial debt (assets)* | – | *(3,221)* | *(3,221)* |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,830** | **48,592** | **55,422** |
| Variable rate bonds or bonds after fair value hedge | – | 16,553 | 16,553 |
| Fixed rate bonds or bonds after cash flow hedge | – | 28,080 | 28,080 |
| Other floating rate debt | 40 | 3,944 | 3,984 |
| Other fixed rate debt | 73 | 438 | 511 |
| Lease obligations | 7,736 | – | 7,736 |
| Non-current financial assets excluding derivative financial instruments | (1,019) | (432) | (1,451) |
| Non-current instruments held for trading | – | 9 | 9 |
| **NON-CURRENT NET FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS** | **6,830** | **48,592** | **55,422** |

The bonds, as of December 31, 2022, after taking into account currency and interest rates swaps fair value, are detailed as follows:

| Bonds after fair value hedge or variable rate bonds[a] (M$) | Currency of issuance | Amount after December 31, 2022 | Amount after December 31, 2021 | Amount after December 31, 2020 | Range of current maturities | Range of initial current rate before hedging instruments |
|---|---|---|---|---|---|---|
| Bond | USD | 5,042 | 5,001 | 6,253 | 2023-2028 | 2.434% - 3.883 % |
| Bond | USD | – | – | – | | |
| Bond | CHF | 407 | 409 | 410 | 2026 - 2029 | 0.176% - 0.298 % |
| Bond | NZD | – | – | – | | |
| Bond | AUD | 71 | 71 | 377 | 2025 | 4.000 % |
| Bond | EUR | 5,574 | 7,528 | 8,666 | 2023 - 2044 | 0.250% - 3.125 % |
| Bond | EUR | – | – | – | | |
| Bond | CAD | – | – | – | | |
| Bond | GBP | 925 | 1,524 | 1,522 | 2025 - 2031 | 1.405% - 2.250 % |
| Bond | HKD | 129 | 129 | 129 | 2025 | 2.920 % |
| Current portion (less than one year) | | (3,890) | (2,540) | (2,699) | | |
| **Principal financing entities[b]** | | **8,258** | **12,122** | **14,658** | | |
| TotalEnergies SE[c] | | | | | | |
| Bond | | – | 1,200 | 1,200 | | |
| Current portion (less than one year) | | – | (1,200) | – | | |
| Other consolidated subsidiaries | | 700 | 698 | 695 | | |
| **TOTAL VARIABLE RATE BONDS OR BONDS AFTER FAIR VALUE HEDGE** | | **8,958** | **12,820** | **16,553** | | |

| Bonds after cash flow hedge or fixed rate bonds (M$) | Currency of issuance | Amount after December 31, 2022 | Amount after December 31, 2021 | Amount after December 31, 2020 | Range of current maturities | Range of initial current rate before hedging instruments |
|---|---|---|---|---|---|---|
| Bond | EUR | 15,628 | 15,487 | 15,259 | 2024 - 2044 | 0.696 % - 5.125 % |
| Bond | USD | 8,783 | 9,941 | 11,524 | 2023 - 2060 | 2.829% - 3.461 % |
| Bond | HKD | 187 | 200 | 208 | 2026 | 3.088 % |
| Bond | CHF | 1,076 | 1,113 | 1,134 | 2024 - 2027 | 0.510% - 1.010 % |
| Bond | GBP | 985 | 1,004 | 998 | 2024 - 2026 | 1.250% - 1.660 % |
| Bond | AUD | (2) | 5 | 9 | 2025 | 4.000 % |
| Current portion (less than one year) | | (500) | (1,000) | (1,500) | | |
| **Principal financing entities[b]** | | **26,157** | **26,750** | **27,632** | | |
| Other consolidated subsidiaries | | 2 | 397 | 448 | | |
| **TOTAL FIXED RATE BONDS OR BONDS AFTER CASH FLOW HEDGE** | | **26,159** | **27,147** | **28,080** | | |

(a) The IBOR rate reform will mainly impact the bonds after fair value hedge, on principal financing entities and TotalEnergies SE, indexed on the USLIBOR rate. At December 31, 2022, the amount of the bonds after fair value hedge (both non-current and current portions) on principal financing entities and TotalEnergies SE is $ 12,148 million.

(b) All debt securities issued through the following subsidiaries are fully and unconditionally guaranteed by TotalEnergies SE as to payment of principal, premium, if any, interest and any other amounts due:

- TotalEnergies Capital is a wholly and directly owned subsidiary of TotalEnergies SE (except for one share held by each director). It acts as a financing vehicle for TotalEnergies. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE.
- TotalEnergies Capital Canada Ltd. is a wholly and directly owned subsidiary of TotalEnergies SE. It acts as a financing vehicle for the activities of TotalEnergies in Canada. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE.
- TotalEnergies Capital International is a wholly and directly owned subsidiary of TotalEnergies SE (except for one share held by each director). It acts as a financing vehicle for TotalEnergies. The repayment of its financial debt (capital, premium and interest) is fully and unconditionally guaranteed by TotalEnergies SE.

### Loan repayment schedule (excluding current portion)

| As of December 31, 2022 (M$) | Non-current financial debt | *of which hedging instruments of non-current financial debt (liabilities)* | Non-current financial assets | *of which hedging instruments of non-current financial debt (assets)* | Non-current net financial debt and related financial instruments | % |
|---|---|---|---|---|---|---|
| 2024 | 7,251 | *399* | (899) | *(56)* | 6,352 | 15 % |
| 2025 | 4,701 | *552* | (259) | *(168)* | 4,442 | 10 % |
| 2026 | 3,465 | *467* | (194) | *(107)* | 3,271 | 8 % |
| 2027 | 3,522 | *217* | (104) | *(17)* | 3,418 | 8 % |
| 2028 and beyond | 26,325 | *2,111* | (1,275) | *(465)* | 25,050 | 59 % |
| **TOTAL** | **45,264** | ***3,746*** | **(2,731)** | ***(813)*** | **42,533** | **100 %** |

| As of December 31, 2021 (M$) | Non-current financial debt | *of which hedging instruments of non-current financial debt (liabilities)* | Non-current financial assets | *of which hedging instruments of non-current financial debt (assets)* | Non-current net financial debt and related financial instruments | % |
|---|---|---|---|---|---|---|
| 2023 | 6,143 | *115* | (111) | *(51)* | 6,032 | 13 % |
| 2024 | 6,506 | *190* | (219) | *(103)* | 6,287 | 13 % |
| 2025 | 4,471 | *194* | (89) | *(51)* | 4,382 | 9 % |
| 2026 | 3,348 | *238* | (71) | *(34)* | 3,277 | 7 % |
| 2027 and beyond | 29,044 | *761* | (1,914) | *(548)* | 27,130 | 58 % |
| **TOTAL** | **49,512** | ***1,498*** | **(2,404)** | ***(787)*** | **47,108** | **100 %** |

| As of December 31, 2020 (M$) | Non-current financial debt | *of which hedging instruments of non-current financial debt (liabilities)* | Non-current financial assets | *of which hedging instruments of non-current financial debt (assets)* | Non-current net financial debt and related financial instruments | % |
|---|---|---|---|---|---|---|
| 2022 | 9,932 | *142* | (142) | *(58)* | 9,790 | 18 % |
| 2023 | 5,988 | *59* | (268) | *(218)* | 5,720 | 10 % |
| 2024 | 6,340 | *115* | (395) | *(277)* | 5,945 | 11 % |
| 2025 | 4,535 | *150* | (260) | *(212)* | 4,275 | 8 % |
| 2026 and beyond | 33,408 | *1,149* | (3,716) | *(2,456)* | 29,692 | 53 % |
| **TOTAL** | **60,203** | ***1,615*** | **(4,781)** | ***(3,221)*** | **55,422** | **100 %** |

### *Analysis by currency and interest rate*

These analyses take into account interest rate and foreign currency swaps to hedge non-current financial net debt.

| As of December 31, (M$) | 2022 | % | 2021 | % | 2020 | % |
|---|---|---|---|---|---|---|
| U.S. Dollar | 38,896 | 91 % | 44,387 | 94 % | 48,609 | 88 % |
| Euro | 2,083 | 5 % | 1,708 | 4 % | 3,144 | 6 % |
| Norwegian krone | 47 | 0 % | 67 | 0 % | 72 | 0 % |
| Other currencies | 1,507 | 4 % | 946 | 2 % | 3,597 | 6 % |
| **TOTAL** | **42,533** | **100 %** | **47,108** | **100 %** | **55,422** | **100 %** |

| As of December 31, (M$) | 2022 | % | 2021 | % | 2020 | % |
|---|---|---|---|---|---|---|
| Fixed rate | 33,533 | 79 % | 34,353 | 73 % | 34,870 | 63 % |
| Floating rate | 9,000 | 21 % | 12,755 | 27 % | 20,552 | 37 % |
| **TOTAL** | **42,533** | **100 %** | **47,108** | **100 %** | **55,422** | **100 %** |

## B) Current financial assets and liabilities

Current borrowings consist mainly of drawings on commercial papers or treasury bills and of bank loans. These instruments bear interest at rates that are close to market rates. Current deposits beyond three months include initial margins held as part of the Company's activities on organized markets.

**As of December 31,**

(M$)

| **(Assets) / Liabilities** | **2022** | **2021** | **2020** |
|---|---|---|---|
| Current financial debt[a] | 8,997 | 8,846 | 11,305 |
| Current lease obligations | 1,437 | 1,390 | 1,206 |
| Current portion of non-current financial debt | 5,068 | 4,799 | 4,588 |
| **Current borrowings** *(note 14)* | **15,502** | **15,035** | **17,099** |
| Current portion of hedging instruments of debt (liabilities) | 262 | 316 | 104 |
| Other current financial instruments (liabilities) | 226 | 56 | 99 |
| **Other current financial liabilities** *(note 14)* | **488** | **372** | **203** |
| Current deposits beyond three months | (8,127) | (11,868) | (4,436) |
| Non-traded marketable securities | (218) | (195) | – |
| Financial receivables on sub-lease, current | (190) | (132) | (111) |
| Current portion of hedging instruments of debt (assets) | (2) | (42) | (18) |
| Other current financial instruments (assets) | (209) | (78) | (65) |
| **Current financial assets** *(note 14)* | **(8,746)** | **(12,315)** | **(4,630)** |
| **NET CURRENT BORROWINGS** | **7,244** | **3,092** | **12,672** |

(a) As of December 31, 2022, December 31, 2021 and December 31, 2020, current financial debt includes notably short-term negotiable debt security issued through programs fully and unconditionally secured by TotalEnergies SE.

## C) Cash flow from (used in) financing activities

The variations of financial debt are detailed as follows:

| (M$) | As of January 1, 2022 | Cash changes | Non-cash changes: Change in scope, including IFRS 5 reclassification | Non-cash changes: Foreign currency | Non-cash changes: Changes in fair value | Non-cash changes: Reclassification Non-current / Current | Non-cash changes: Other | **As of December 31, 2022** |
|---|---|---|---|---|---|---|---|---|
| Non-current financial instruments - assets[a] and non-current financial assets | (2,404) | – | 24 | 52 | (448) | 198 | (153) | (2,731) |
| Non-current financial debt | 49,512 | 1,108 | (696) | (225) | 175 | (6,981) | 2,371 | 45,264 |
| **Non-current financial debt and related financial instruments** | **47,108** | **1,108** | **(672)** | **(173)** | **(273)** | **(6,783)** | **2,218** | **42,533** |
| Current financial instruments - assets[a] | (252) | 264 | – | 6 | (97) | (198) | (124) | (401) |
| Current borrowings | 15,035 | (6,337) | (316) | (106) | (69) | 6,981 | 314 | 15,502 |
| Current financial instruments - liabilities[a] | 372 | – | – | (9) | 125 | – | – | 488 |
| **Current financial debt and related financial instruments** | **15,155** | **(6,073)** | **(316)** | **(109)** | **(41)** | **6,783** | **190** | **15,589** |
| Financial debt and financial assets classified as held for sale | (4) | – | (34) | – | – | – | – | (38) |
| **NET FINANCIAL DEBT** | **62,259** | **(4,965)** | **(1,022)** | **(282)** | **(314)** | **–** | **2,408** | **58,084** |

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

| (M$) | As of January 1, 2021 | Cash changes | Non-cash changes: Change in scope, including IFRS 5 reclassification | Non-cash changes: Foreign currency | Non-cash changes: Changes in fair value | Non-cash changes: Reclassification Non-current / Current | Non-cash changes: other | **As of December 31, 2021** |
|---|---|---|---|---|---|---|---|---|
| Non-current financial instruments - assets[a] and non-current financial assets | (4,781) | (290) | 1 | 64 | 2,432 | 188 | (18) | (2,404) |
| Non-current financial debt | 60,203 | (359) | (58) | (183) | (2,377) | (9,254) | 1,540 | 49,512 |
| **Non-current financial debt and related financial instruments** | **55,422** | **(649)** | **(57)** | **(119)** | **55** | **(9,066)** | **1,522** | **47,108** |
| Current financial instruments - assets[a] | (194) | 191 | - | 8 | (45) | (188) | (24) | (252) |
| Current borrowings | 17,099 | (11,047) | 15 | (283) | (158) | 9,254 | 155 | 15,035 |
| Current financial instruments - liabilities[a] | 203 | - | 1 | (11) | 179 | - | – | 372 |
| **Current financial debt and related financial instruments** | **17,108** | **(10,856)** | **16** | **(286)** | **(24)** | **9,066** | **131** | **15,155** |
| Financial debt and financial assets classified as held for sale | 313 | - | (306) | (11) | – | – | – | (4) |
| **Net financial debt** | **72,843** | **(11,505)** | **(347)** | **(416)** | **31** | **–** | **1,653** | **62,259** |

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

| (M$) | As of January 1, 2020 | Cash changes | Non-cash changes: Change in scope, including IFRS 5 reclassification | Foreign currency | Changes in fair value | Reclassification Non-current / Current | other | **As of December 31, 2020** |
|---|---|---|---|---|---|---|---|---|
| Non-current financial instruments - assets [a] and non-current financial assets | (912) | (228) | 3 | (59) | (2,729) | 118 | (974) | (4,781) |
| Non-current financial debt | 47,773 | 15,800 | (456) | 192 | 2,973 | (8,711) | 2,632 | 60,203 |
| **Non-current financial debt and related financial instruments** | **46,861** | **15,572** | **(453)** | **133** | **244** | **(8,593)** | **1,658** | **55,422** |
| Current financial instruments - assets[a] | (268) | 178 | – | (6) | 46 | (118) | (26) | (194) |
| Current borrowings | 14,819 | (6,679) | 6 | (132) | 188 | 8,711 | 186 | 17,099 |
| Current financial instruments - liabilities[a] | 487 | – | (5) | 8 | (287) | – | – | 203 |
| **Current financial debt and related financial instruments** | **15,038** | **(6,501)** | **1** | **(130)** | **(53)** | **8,593** | **160** | **17,108** |
| Financial debt and financial assets classified as held for sale | 301 | – | (10) | 22 | – | – | – | 313 |
| **NET FINANCIAL DEBT** | **62,200** | **9,071** | **(462)** | **25** | **191** | **–** | **1,818** | **72,843** |

(a) Fair value or cash flow hedge instruments and other non-hedge debt-related derivative instruments.

Monetary changes in non-current financial debt are detailed as follows:

**For the year ended December 31,**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Issuance of non-current debt | 1,148 | 808 | 16,075 |
| Repayment of non-current debt | (40) | (1,167) | (275) |
| **NET AMOUNT** | **1,108** | **(359)** | **15,800** |

## D) Cash and cash equivalents

**Accounting principles**

Cash and cash equivalents are composed of cash on hand and highly liquid short-term investments that are easily convertible into known amounts of cash and are subject to insignificant risks of changes in value.

Investments with maturity greater than three months and less than twelve months are shown under “Current financial assets”.

Changes in current financial assets and liabilities are included in the financing activities section of the Consolidated Statement of Cash Flows.

Cash and cash equivalents are detailed as follows:

**For the year ended December 31,**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Cash | 14,873 | 13,544 | 14,518 |
| Cash equivalents | 18,153 | 7,798 | 16,750 |
| **TOTAL** | **33,026** | **21,342** | **31,268** |

Cash equivalents are mainly composed of deposits with a maturity of less than three months, deposited in government institutions or deposit banks selected in accordance with strict criteria.

As of December 31, 2022, the cash and cash equivalents include $2,352 million subject to restrictions, notably due to regulatory framework or to the fact they are owned by affiliates located in countries with exchange controls.

## E) Net-debt-to-capital ratio

For its internal and external communication needs, TotalEnergies calculates a debt ratio by dividing its net financial debt excluding leases by its capital.

The ratio is calculated as follows: *Net debt excluding leases / (Equity + Net debt excluding leases)*

**As of December 31,**

(M$)

| **(Assets) / Liabilities** | 2022 | 2021 | 2020 |
|---|---|---|---|
| Current borrowings[a] | 14,065 | 13,645 | 15,893 |
| Other current financial liabilities | 488 | 372 | 203 |
| Current financial assets[a] | (8,556) | (12,183) | (4,519) |
| Net financial assets and liabilities held for sale or exchange | (38) | (4) | 313 |
| Non-current financial debt[a] | 36,987 | 41,868 | 52,467 |
| Non-current financial assets[a] | (1,303) | (1,557) | (3,762) |
| Cash and cash equivalents | (33,026) | (21,342) | (31,268) |
| **Net financial debt** | **8,617** | **20,799** | **29,327** |
| | | | |
| Shareholders’ equity – TotalEnergies share | 111,724 | 111,736 | 103,702 |
| Distribution of the income based on existing shares at the closing date | 2,846 | 3,263 | 2,383 |
| **Shareholders’ equity** | **114,570** | **114,999** | **106,085** |
| **NET-DEBT-TO-CAPITAL RATIO EXCLUDING LEASES** | **7.0 %** | **15.3 %** | **21.7 %** |

(a) excluding lease receivables & lease debts.

## 15.2 FAIR VALUE OF FINANCIAL INSTRUMENTS (EXCLUDING COMMODITY CONTRACTS)

**Accounting principles**

TotalEnergies uses derivative instruments to manage its exposure to risks of changes in interest rates, foreign exchange rates and commodity prices. These financial instruments are accounted for in accordance with IFRS 9, changes in fair value of derivative instruments are recognized in the income statement or in other comprehensive income and are recognized in the balance sheet in the accounts corresponding to their nature, according to the risk management strategy. The derivative instruments used by TotalEnergies are the following:

- Cash management

Financial instruments used for cash management purposes are part of a hedging strategy of currency and interest rate risks within global limits set by TotalEnergies and are considered to be held for trading. Changes in fair value are systematically recorded in the income statement. The balance sheet value of those instruments is included in “Current financial assets” or “Other current financial liabilities”.

- Long-term financing

When an external long-term financing is set up, specifically to finance subsidiaries, and when this financing involves currency and interest rate derivatives, these instruments are qualified as:

1) Fair value hedge of the interest rate and currency risks on the external debt financing the loans to subsidiaries. Changes in fair value of derivatives are recognized in the income statement, as are changes in fair value of underlying financial debts and loans to subsidiaries.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt” for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   In case of the anticipated termination of derivative instruments accounted for as fair value hedges, the amount paid or received is recognized in the income statement and:

   - If this termination is due to an early cancellation of the hedged items, the adjustment previously recorded as revaluation of those hedged items is also recognized in the income statement;
   - If the hedged items remain in the balance sheet, the adjustment previously recorded as a revaluation of those hedged items is amortized over the remaining life of those items.

   In case of a change in the strategy of the hedge (fair value hedge to cash flow hedge), if the components of the initial aggregated exposure had already been designated in a hedging relationship (FVH), TotalEnergies designates the new instrument as a hedging instrument of an aggregated position (CFH) without having to end the initial hedging relationship.

2) Cash flow hedge when TotalEnergies implements a strategy of fixing interest rate and/or currency rate on the external debt. Changes in fair value are recorded in other comprehensive income for the effective portion of the hedging and in the income statement for the ineffective portion of the hedging. When the hedged transaction affects profit or loss, the fair value variations of the hedging instrument recorded in equity are also symmetrically recycled to the income statement.

   The fair value of those hedging instruments of long-term financing is included in assets under “Non-current financial assets” or in liabilities under “Non-current financial debt” for the non-current portion. The current portion (less than one year) is accounted for in “Current financial assets” or “Other current financial liabilities”.

   If the hedging instrument expires, is sold or terminated by anticipation, gains or losses previously recognized in equity remain in equity. Amounts are recycled to the income statement only when the hedged transaction affects profit or loss.

3) In compliance with IFRS 9, TotalEnergies has decided to recognize in a separate component of the comprehensive income the variation of foreign currency basis spread (Cross Currency Swaps) identified in the hedging relationships qualified as fair value hedges and cash flow hedges.

- Foreign subsidiaries’ equity hedge

Certain financial instruments hedge against risks related to the equity of foreign subsidiaries whose functional currency is not the euro (mainly the dollar). These instruments qualify as “net investment hedges” and changes in fair value are recorded in other comprehensive income under "Currency translation" for the effective portion of the hedging and in the income statement for the ineffective portion of the hedging. Gains or losses on hedging instruments previously recorded in equity, are reclassified to the income statement in the same period as the total or partial disposal of the foreign activity.

The fair value of these instruments is recorded under "Current financial assets" and "Other current financial liabilities".

- Commitments to purchase shares held by non-controlling interests (put options written on minority interests)

Put options granted to non-controlling-interest shareholders are initially recognized as financial liabilities at the present value of the exercise price of the options with a corresponding reduction in shareholders’ equity – TotalEnergies share. The financial liability is subsequently measured at fair value at each balance sheet date in accordance with contractual clauses and any variation is recorded in the income statement (cost of debt).

### A) Impact on the income statement per nature of financial instruments

#### Assets and liabilities from financing activities

The impact on the income statement of financing assets and liabilities mainly includes:

- Financial income on cash, cash equivalents, and current financial assets (notably current deposits beyond three months) classified as “Loans and receivables”;
- Financial expense of long-term subsidiaries financing, associated hedging instruments (excluding ineffective portion of the hedge detailed below) and financial expense of short-term financing classified as “Financing liabilities and associated hedging instruments”;
- Ineffective portion of bond hedging;

- Financial income and financial expense on lease contracts and,
- Financial income, financial expense and fair value of derivative instruments used for cash management purposes classified as “Assets and liabilities held for trading”.

Financial derivative instruments used for cash management purposes (interest rate and foreign exchange) are considered to be held for trading. Based on practical documentation issues, TotalEnergies did not elect to set up hedge accounting for such instruments. The impact on income statement of the derivatives is offset by the impact of loans and current liabilities they are related to. Therefore these transactions taken as a whole do not have a significant impact on the Consolidated Financial Statements.

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Loans and receivables | 562 | 188 | 154 |
| Financing liabilities and associated hedging instruments | (1,812) | (1,373) | (1,660) |
| Fair value hedge (ineffective portion) | (5) | (10) | 12 |
| Lease assets and obligations | (458) | (413) | (422) |
| Assets and liabilities held for trading | 470 | 83 | (194) |
| **IMPACT ON THE COST OF NET DEBT** | **(1,243)** | **(1,525)** | **(2,110)** |

## B) Impact of the hedging strategies

### Fair value hedge instruments

The impact on the income statement of the bond hedging instruments which is recorded in the item “Financial interest on debt” in the Consolidated Statement of Income is detailed as follows:

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Revaluation impact at market value of bonds | 3,817 | 3,199 | (4,004) |
| Swaps hedging bonds | (3,822) | (3,209) | 4,016 |
| **INEFFECTIVE PORTION OF THE FAIR VALUE HEDGE** | **(5)** | **(10)** | **12** |

The ineffective portion is not representative of TotalEnergies’ performance considering its objective to hold swaps to maturity. The current portion of the swaps valuation is not subject to active management.

### Net investment hedge

As of December 31, 2022, 2021 and 2020 TotalEnergies had no open forward contracts held in respect of net investment hedge strategies.

### Cash flow hedge

The impact on the income statement and other comprehensive income of the bonds hedging instruments qualified as cash flow hedges is detailed as follows:

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Profit (Loss) recorded in other comprehensive income of the period | 72 | (167) | (327) |
| Recycled amount from other comprehensive income to the income statement of the period | (55) | (113) | 139 |

As of December 31, 2022, 2021 and 2020, the ineffective portion of these financial instruments is nil.

### Hedging instruments and hedged items by strategy

#### *Fair Value Hedge*

The following charts regarding Fair Value Hedge, disclose by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps):

- The nominal amounts and carrying amounts of hedging instruments;
- The carrying amounts of hedged items and cumulative FVH adjustments included in the carrying amounts of the hedged items;
- The hedged items that have ceased to be adjusted for hedging gains and losses.

**For the year ended December 31, 2022**
(M$)

| Hedged items | Hedging instruments | Nominal amount of hedging instruments | Carrying amount of hedging instruments | | Carrying amount of hedged items | | Cumulative FVH adjustments included in the carrying amount of the hedged items | | Line items in the statement of financial position |
|---|---|---|---|---|---|---|---|---|---|
| | | | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 5,000 | – | (151) | – | (4,892) | – | 108 | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 7,029 | – | (1,124) | – | (5,982) | – | 1,047 | *Financial debt / Financial assets* |
| End of hedging (before 2018) | | – | – | – | – | – | – | (8) | |

| **For the year ended December 31, 2021** (M$) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Nominal amount of hedging instruments** | **Carrying amount of hedging instruments** | | **Carrying amount of hedged items** | | **Cumulative FVH adjustments included in the carrying amount of the hedged items** | | **Line items in the statement of financial position** |
| **Hedged items** | **Hedging instruments** | | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 6,767 | 303 | (36) | – | (7,037) | – | (837) | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 9,566 | 154 | (382) | – | (8,865) | – | 701 | *Financial debt / Financial assets* |
| End of hedging (before 2018) | | – | – | – | – | – | – | (27) | |

| **For the year ended December 31, 2020** (M$) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Nominal amount of hedging instruments** | **Carrying amount of hedging instruments** | | **Carrying amount of hedged items** | | **Cumulative FVH adjustments included in the carrying amount of the hedged items** | | **Line items in the statement of financial position** |
| **Hedged items** | **Hedging instruments** | | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 8,063 | 527 | (15) | – | (8,586) | – | (1,136) | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 11,011 | 836 | (211) | – | (11,109) | – | (98) | *Financial debt / Financial assets* |
| End of hedging (before 2018) | | – | – | – | – | – | – | (47) | |

### *Cash Flow Hedge*

The following charts regarding Cash Flow Hedge disclose the nominal amounts and carrying amounts by nature of hedging instruments (Interest Rate Swaps and Cross Currency Swaps).

According to IFRS 9, there is no accounting entry related to Cash Flow Hedge on hedged items.

| **For the year ended December 31, 2022** (M$) | **Nature of hedging instruments** | **Nominal amount of hedging instruments** | **Carrying amount of hedging instruments** | | **Line items in the statement of financial position** |
|---|---|---|---|---|---|
| | | | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 12,782 | 815 | (2) | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 17,511 | – | (2,731) | *Financial debt / Financial assets* |

| **For the year ended December 31, 2021** (M$) | **Nature of hedging instruments** | **Nominal amount of hedging instruments** | **Carrying amount of hedging instruments** | | **Line items in the statement of financial position** |
|---|---|---|---|---|---|
| | | | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 12,782 | – | (736) | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 17,511 | 372 | (660) | *Financial debt / Financial assets* |

| **For the year ended December 31, 2020** (M$) | **Nature of hedging instruments** | **Nominal amount of hedging instruments** | **Carrying amount of hedging instruments** | | **Line items in the statement of financial position** |
|---|---|---|---|---|---|
| | | | Assets | Liabilities | |
| Bonds | Interest Rate Swaps | 12,781 | – | (1,441) | *Financial debt / Financial assets* |
| Bonds | Cross Currency Swaps | 17,511 | 1,856 | (32) | *Financial debt / Financial assets* |

## C) Maturity of derivative instruments

The maturity of the notional amounts of derivative instruments, excluding the commodity contracts, is detailed in the following table:

| For the year ended December 31, 2022<br>(M$)<br>Assets / (Liabilities) | Fair value | Notional value 2023 | Fair value | Notional value schedule<br>2024 and beyond | 2024 | 2025 | 2026 | 2027 | 2028 and beyond |
|---|---|---|---|---|---|---|---|---|---|
| **Fair value hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | – | 1,000 | – | – | | | | | |
| Swaps hedging bonds (liabilities) | (260) | 2,858 | (1,015) | 8,171 | | | | | |
| **Total swaps hedging bonds - fair value hedge** | **(260)** | **3,858** | **(1,015)** | **8,171** | **2,087** | **1,630** | **202** | **820** | **3,432** |
| **Cash flow hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | 2 | 250 | 813 | 11,782 | | | | | |
| Swaps hedging bonds (liabilities) | (2) | 750 | (2,731) | 17,511 | | | | | |
| **Total swaps hedging bonds - cash flow hedge** | **–** | **1,000** | **(1,918)** | **29,293** | **3,659** | **4,459** | **4,069** | **2,071** | **15,035** |
| Forward exchange contracts related to operating activities (assets) | 4 | 70 | 3 | 91 | | | | | |
| Forward exchange contracts related to operating activities (liabilities) | (19) | 187 | (19) | 433 | | | | | |
| **Total forward exchange contracts related to operating activities** | **(15)** | **257** | **(16)** | **524** | **524** | **–** | **–** | **–** | **–** |
| **Held for trading** | | | | | | | | | |
| Other interest rate swaps (assets) | 154 | 14,955 | 447 | 7,470 | | | | | |
| Other interest rate swaps (liabilities) | (94) | 13,236 | (226) | 4,128 | | | | | |
| **Total other interest rate swaps** | **60** | **28,191** | **221** | **11,598** | **5,233** | **3,716** | **1,174** | **1,022** | **453** |
| Currency swaps and forward exchange contracts (assets) | 55 | 7,076 | 44 | 1,289 | | | | | |
| Currency swaps and forward exchange contracts (liabilities) | (110) | 15,964 | (57) | 839 | | | | | |
| **Total currency swaps and forward exchange contracts** | **(55)** | **23,040** | **(13)** | **2,128** | **391** | **1,737** | **–** | **–** | **–** |

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

| For the year ended December 31, 2021<br>(M$)<br>Assets / (Liabilities) | Fair value | Notional value 2022 | Fair value | Notional value schedule<br>2023 and beyond | 2023 | 2024 | 2025 | 2026 | 2027 and beyond |
|---|---|---|---|---|---|---|---|---|---|
| **Fair value hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | 42 | 566 | 415 | 9,659 | | | | | |
| Swaps hedging bonds (liabilities) | (316) | 3,737 | (102) | 2,371 | | | | | |
| **Total swaps hedging bonds - fair value hedge** | **(274)** | **4,303** | **313** | **12,030** | **3,858** | **2,087** | **1,630** | **202** | **4,253** |
| **Cash flow hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | – | – | 372 | 7,149 | | | | | |
| Swaps hedging bonds (liabilities) | – | – | (1,396) | 23,144 | | | | | |
| **Total swaps hedging bonds - cash flow hedge** | **–** | **–** | **(1,024)** | **30,293** | **1,000** | **3,659** | **4,459** | **4,068** | **17,107** |
| Forward exchange contracts related to operating activities (assets) | – | 36 | – | – | | | | | |
| Forward exchange contracts related to operating activities (liabilities) | (8) | 283 | (14) | 366 | | | | | |
| **Total forward exchange contracts related to operating activities** | **(8)** | **319** | **(14)** | **366** | **171** | **195** | **–** | **–** | **–** |
| **Held for trading** | | | | | | | | | |
| Other interest rate swaps (assets) | 13 | 20,876 | 78 | 5,170 | | | | | |
| Other interest rate swaps (liabilities) | (19) | 6,470 | (41) | 2,561 | | | | | |
| **Total other interest rate swaps** | **(6)** | **27,346** | **37** | **7,731** | **1,708** | **2,856** | **2,111** | **751** | **305** |
| Currency swaps and forward exchange contracts (assets) | 65 | 9,769 | 17 | 367 | | | | | |
| Currency swaps and forward exchange contracts (liabilities) | (37) | 5,065 | – | (16) | | | | | |
| **Total currency swaps and forward exchange contracts** | **28** | **14,834** | **17** | **351** | **265** | **86** | **–** | **–** | **–** |

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

| For the year ended December 31, 2020 (M$) Assets / (Liabilities) | Fair value | Notional value 2021 | Fair value | 2022 and beyond | Notional value schedule 2022 | 2023 | 2024 | 2025 | 2026 and beyond |
|---|---|---|---|---|---|---|---|---|---|
| **Fair value hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | 18 | 1,250 | 1,365 | 12,642 | | | | | |
| Swaps hedging bonds (liabilities) | (104) | 1,445 | (142) | 3,737 | | | | | |
| **Total swaps hedging bonds - fair value hedge** | **(86)** | **2,695** | **1,223** | **16,379** | **4,350** | **3,858** | **2,087** | **1,630** | **4,454** |
| **Cash flow hedge** | | | | | | | | | |
| Swaps hedging bonds (assets) | – | – | 1,856 | 16,259 | | | | | |
| Swaps hedging bonds (liabilities) | – | – | (1,473) | 14,033 | | | | | |
| **Total swaps hedging bonds - cash flow hedge** | **–** | **–** | **383** | **30,292** | **–** | **1,000** | **3,659** | **4,459** | **21,174** |
| Forward exchange contracts related to operating activities (assets) | 16 | 262 | 20 | 394 | | | | | |
| Forward exchange contracts related to operating activities (liabilities) | – | – | – | – | | | | | |
| **Total forward exchange contracts related to operating activities** | **16** | **262** | **20** | **394** | **276** | **118** | **–** | **–** | **–** |
| **Held for trading** | | | | | | | | | |
| Other interest rate swaps (assets) | 10 | 22,011 | 84 | 3,214 | | | | | |
| Other interest rate swaps (liabilities) | (51) | 7,693 | (116) | 3,695 | | | | | |
| **Total other interest rate swaps** | **(41)** | **29,704** | **(32)** | **6,909** | **2,067** | **764** | **2,004** | **1,937** | **137** |
| Currency swaps and forward exchange contracts (assets) | 39 | 3,323 | 5 | 344 | | | | | |
| Currency swaps and forward exchange contracts (liabilities) | (48) | 2,580 | (2) | 54 | | | | | |
| **Total currency swaps and forward exchange contracts** | **(9)** | **5,903** | **3** | **398** | **189** | **145** | **64** | **–** | **–** |

Notional amounts set the levels of commitment and are indicative nor of a contingent gain or loss neither of a related debt.

## D) Fair value hierarchy

### Accounting principles

According to IFRS 13, fair values are estimated for the majority of TotalEnergies' financial instruments, with the exception of publicly traded equity securities and marketable securities for which the market price is used.

Estimations of fair value, which are based on principles such as discounting future cash flows to present value, must be weighted by the fact that the value of a financial instrument at a given time may be influenced by the market environment (liquidity especially), and also the fact that subsequent changes in interest rates and exchange rates are not taken into account.

As a consequence, the use of different estimates, methodologies and assumptions could have a material effect on the estimated fair value amounts.

The methods used are as follows:

#### - Financial debts, swaps

The market value of swaps and of bonds that are hedged by those swaps has been determined on an individual basis by discounting future cash flows with the market curves existing at year-end.

#### - Other financial instruments

The fair value of interest rate swaps and of FRA's (Forward Rate Agreements) is calculated by discounting future cash flows on the basis of market curves existing at year-end after adjustment for interest accrued but unpaid. Forward exchange contracts and currency swaps are valued on the basis of a comparison of the negotiated forward rates with the rates in effect on the financial markets at year-end for similar maturities.

Exchange options are valued based on models commonly used by the market.

The fair value hierarchy for financial instruments, excluding commodity contracts, is as follows:

| As of December 31, 2022 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Fair value hedge instruments | – | (1,275) | – | (1,275) |
| Cash flow hedge instruments | – | (1,950) | – | (1,950) |
| Assets and liabilities held for trading | – | 214 | – | 214 |
| Equity instruments | 33 | – | – | 33 |
| **TOTAL** | **33** | **(3,011)** | **–** | **(2,978)** |

| As of December 31, 2021 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Fair value hedge instruments | – | 39 | – | 39 |
| Cash flow hedge instruments | – | (1,052) | – | (1,052) |
| Assets and liabilities held for trading | – | 82 | – | 82 |
| Equity instruments | 501 | – | – | 501 |
| **TOTAL** | **501** | **(931)** | **–** | **(430)** |

| As of December 31, 2020 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Fair value hedge instruments | – | 1,137 | – | 1,137 |
| Cash flow hedge instruments | – | 408 | – | 408 |
| Assets and liabilities held for trading | – | (68) | – | (68) |
| Equity instruments | 706 | – | – | 706 |
| **TOTAL** | **706** | **1,477** | **–** | **2,183** |

## 15.3 FINANCIAL RISKS MANAGEMENT

### Financial markets related risks

As part of its financing and cash management activities, TotalEnergies uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. TotalEnergies may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 14, 15.1 and 15.2 to the Consolidated Financial Statements.

Risks relative to cash management operations and to interest rate and foreign exchange financial instruments are managed according to rules set by TotalEnergies' General Management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments by the Treasury Department. Excess cash of TotalEnergies is deposited mainly in government institutions, deposit banks, or major companies through deposits, reverse repurchase agreements and purchase of commercial paper. Liquidity positions and the management of financial instruments are centralized by the Treasury Department, where they are managed by a team specialized in foreign exchange and interest rate market transactions.

The Cash Monitoring-Management Unit within the Treasury Department monitors limits and positions per bank on a daily basis and results of the Front Office. This unit also prepares marked-to-market valuations of used financial instruments and, when necessary, performs sensitivity analyses.

### Counterparty risk

TotalEnergies has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, credit ratings from Standard & Poor's and Moody's, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorised financial counterparty and is allocated amongst the affiliates and TotalEnergies' central treasury entities, according to TotalEnergies' financial needs.

To reduce the market valuation risk on its commitments, in particular relating to derivative instruments, the Treasury Department has entered into margin call agreements with its counterparties, in compliance with applicable regulations. Moreover, since December 21, 2018 any new interest rate hedging swap (excluding cross currency swaps) entered into by a TotalEnergies' entity, and falling under the clearing obligation in accordance with EU regulations 648/2012 and 2019/834 on OTC derivatives, central counterparties and trade repositories (EMIR and EMIR Refit respectively), is now subject to central clearing.

Since September 1, 2021, Totalenergies applies the delegated Regulation (EU) No. 2016/2251 (supplementing Regulation (EU) No 648/2012), regarding initial margin calls on certain OTC derivative contracts not cleared by central counterparty.

### Reform of benchmarks risk

The transition to IBOR indices did not have a significant impact on the financial instruments managed by the Treasury Department of TotalEnergies. The main LIBOR Dollar maturities such as the 3 month USD LIBOR will continue to be published until the end of June 2023 and will then be replaced by the SOFR. Furthermore, in Europe, the Eonia rate ceased to be published on January 3, 2022 and was replaced by the ESTR rate. TotalEnergies is proactively managing these regulatory changes.

### Short-term interest rate exposure and cash

Cash balances, primarily composed of euros and dollars, are managed according to the guidelines established by TotalEnergies' General Management (to maintain an adequate level of liquidity, optimize revenue from investments considering existing interest rate yield curves, and minimize the cost of borrowing) based on a daily interest rate benchmark, primarily through short-term interest rate swaps and short-term currency swaps.

### Interest rate risk on non-current debt

TotalEnergies' policy consists in incurring long-term debt at a floating or fixed rate, depending on TotalEnergies' general corporate needs and the interest rate environment at the time of issuance, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, TotalEnergies may also enter into long-term interest rate swaps on an *ad-hoc* basis.

### Currency exposure

TotalEnergies generally seeks to minimize the currency exposure of each entity to its functional currency (primarily the dollar, the euro, the pound sterling and the Norwegian krone).

For currency exposure generated by commercial activity, the hedging of revenues and costs in foreign currencies is typically performed using currency operations on the spot market and, in some cases, on the forward market. TotalEnergies rarely hedges future cash flows, although it may use options to do so.

With respect to currency exposure linked to non-current assets, TotalEnergies has a hedging policy of financing these assets in their functional currency.

Net short-term currency exposure is periodically monitored against limits set by TotalEnergies' General Management.

The non-current debt described in Note 15.1 to the Consolidated Financial Statements is generally raised by the corporate treasury entities either directly in dollars or in euros, or in other currencies which are then exchanged for dollars or euros through swap issuances to appropriately match general corporate needs. The proceeds from these debt issuances are loaned to affiliates whose accounts are kept in dollars or in euros. Thus, the net sensitivity of these positions to currency exposure is not significant.

TotalEnergies' short-term currency swaps, the notional value of which appears in Note 15.2 to the Consolidated Financial Statements, are used to attempt to optimize the centralized cash management of TotalEnergies. Thus, the sensitivity to currency fluctuations which may be induced is likewise considered negligible.

### Sensitivity analysis on interest rate and foreign exchange risk

The tables below present the potential impact of an increase or decrease of 10 basis points on the interest rate yield curves for each of the currencies on the fair value of the current financial instruments as of December 31, 2022, 2021 and 2020.

| Assets / (Liabilities) (M$) | Carrying amount | Estimated fair value | Change in fair value due to a change in interest rate by + 10 basis points | - 10 basis points |
|---|---|---|---|---|
| **As of December 31, 2022** | | | | |
| Bonds (non-current portion, before swaps) | (32,184) | (30,391) | 210 | (210) |
| *Swaps hedging bonds (liabilities)* | *(3,746)* | *(3,746)* | – | – |
| *Swaps hedging bonds (assets)* | *813* | *813* | – | – |
| Total swaps hedging bonds (assets and liabilities) | (2,933) | (2,933) | (9) | 9 |
| Current portion of non-current debt after swaps (excluding lease obligations) | (5,328) | (5,344) | 3 | (3) |
| Other interest rates swaps | 281 | 281 | 10 | (10) |
| Currency swaps and forward exchange contracts | (68) | (68) | – | – |
| **As of December 31, 2021** | | | | |
| Bonds (non-current portion, before swaps) | (39,256) | (42,888) | 349 | (349) |
| *Swaps hedging bonds (liabilities)* | *(1,498)* | *(1,498)* | – | – |
| *Swaps hedging bonds (assets)* | *787* | *787* | – | – |
| Total swaps hedging bonds (assets and liabilities) | (711) | (711) | (34) | 34 |
| Current portion of non-current debt after swaps (excluding lease obligations) | (5,073) | (5,077) | 5 | (5) |
| Other interest rates swaps | 31 | 31 | 16 | (16) |
| Currency swaps and forward exchange contracts | 45 | 45 | – | – |
| **As of December 31, 2020** | | | | |
| Bonds (non-current portion, before swaps) | (46,239) | (52,246) | 440 | (440) |
| *Swaps hedging bonds (liabilities)* | *(1,615)* | *(1,615)* | – | – |
| *Swaps hedging bonds (assets)* | *3,221* | *3,221* | – | – |
| Total swaps hedging bonds (assets and liabilities) | 1,606 | 1,606 | (70) | 70 |
| Current portion of non-current debt after swaps (excluding lease obligations) | (4,674) | (4,696) | 2 | (2) |
| Other interest rates swaps | (73) | (73) | 18 | (18) |
| Currency swaps and forward exchange contracts | (6) | (6) | – | – |

The impact of changes in interest rates on the cost of debt before tax is as follows:

| For the year ended December 31, (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Cost of net debt | (1,243) | (1,525) | (2,110) |
| Interest rate translation of : | | | |
| + 10 basis points | 18 | 47 | 29 |
| -10 basis points | (18) | (47) | (29) |

As a result of the policy for the management of currency exposure previously described, TotalEnergies' sensitivity to currency exposure is primarily influenced by the net equity of the subsidiaries whose functional currency is the euro and to a lesser extent, the pound sterling and the Norwegian krone.

This sensitivity is reflected in the historical evolution of the currency translation adjustment recorded in the statement of changes in consolidated shareholders' equity which, over the course of the last three years, is essentially related to the fluctuation of the euro, the ruble and the pound sterling and is set forth in the table below:

| | Dollar / Euro exchange rates | Dollar / Pound sterling exchange rates | Dollar / Ruble exchange rates |
|---|---|---|---|
| **December 31, 2022** | **0.94** | **0.83** | **74.01** |
| December 31, 2021 | 0.88 | 0.74 | 75.31 |
| December 31, 2020 | 0.81 | 0.73 | 74.54 |

| As of December 31, 2022 (M$) | Total | Euro | Dollar | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|---|
| Shareholders' equity at historical exchange rate | **124,560** | 15,835 | 88,902 | 6,258 | 45 | 13,520 |
| Currency translation adjustment before net investment hedge | **(12,831)** | (7,170) | – | (2,463) | (30) | (3,168) |
| Net investment hedge – open instruments | **(5)** | (5) | – | – | – | – |
| Shareholders' equity at exchange rate as of December 31, 2022 | **111,724** | 8,660 | 88,902 | 3,795 | 15 | 10,352 |

| As of December 31, 2021 (M$) | Total | Euro | Dollar | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|---|
| Shareholders' equity at historical exchange rate | **124,407** | 24,617 | 70,030 | 6,064 | 10,596 | 13,100 |
| Currency translation adjustment before net investment hedge | **(12,666)** | (4,239) | – | (1,902) | (4,281) | (2,244) |
| Net investment hedge – open instruments | **(5)** | (5) | – | – | – | – |
| Shareholders' equity at exchange rate as of December 31, 2021 | **111,736** | 20,373 | 70,030 | 4,162 | 6,315 | 10,856 |

| As of December 31, 2020 (M$) | Total | Euro | Dollar | Pound sterling | Ruble | Other currencies |
|---|---|---|---|---|---|---|
| Shareholders' equity at historical exchange rate | **113,958** | 28,893 | 60,613 | 4,494 | 9,913 | 10,045 |
| Currency translation adjustment before net investment hedge | **(10,279)** | (2,448) | – | (1,726) | (4,253) | (1,852) |
| Net investment hedge – open instruments | **23** | 23 | – | – | – | – |
| Shareholders' equity at exchange rate as of December 31, 2020 | **103,702** | 26,468 | 60,613 | 2,768 | 5,660 | 8,193 |

Based on the 2022 financial statements, a conversion using rates different from + or - 10% for each of the currencies below would have the following impact on shareholders equity and net income (TotalEnergies share):

| As of December 31, 2022 (M$) | Euro | Pound sterling | Ruble |
|---|---|---|---|
| Impact of an increase of 10% of exchange rates on : | | | |
| – shareholders equity | 866 | 380 | 2 |
| – net income (TotalEnergies share) | (150) | 275 | (581) |
| Impact of a decrease of (10)% of exchange rates on : | | | |
| – shareholders equity | (866) | (380) | (2) |
| – net income (TotalEnergies share) | 150 | (275) | 581 |

## Stock market risk

TotalEnergies holds interests in a number of publicly-traded companies (see Note 8 to the Consolidated Financial Statements). The market value of these holdings fluctuates due to various factors, including stock market trends, valuations of the sectors in which the companies operate, and the economic and financial condition of each individual company.

## Liquidity risk

TotalEnergies SE has committed credit facilities granted by international banks allowing it to benefit from significant liquidity reserves.

As of December 31, 2022, these credit facilities amounted to $17,527 million and were entirely unutilized. The agreements underpinning credit facilities granted to TotalEnergies SE do not contain conditions related to TotalEnergies' financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

As of December 31, 2022, the aggregated amount of the main committed credit facilities granted by international banks to the TotalEnergies' companies, including TotalEnergies SE, was $18,963 million, of which $18,510 million were unutilized. In addition, the $8 billion undrawn credit line as of December 31, 2022, put in place in March 2022, has not been extended and will therefore end in March 2023.

Credit facilities granted to the TotalEnergies' companies other than TotalEnergies SE are not intended to fund TotalEnergies' general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

The following tables show the maturity of the financial assets and liabilities of TotalEnergies as of December 31, 2022, 2021 and 2020 (see Note 15.1 to the Consolidated Financial Statements).

**As of December 31, 2022**

| Assets/(Liabilities) (M$) | Less than one year | 1-2 years | 2-3 years | 3-4 years | 4-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|---|
| Non-current financial debt (notional value excluding interests) | – | (6,719) | (4,527) | (3,356) | (3,503) | (25,856) | (43,961) |
| Non-current financial assets excluding derivative financial instruments | – | 367 | 85 | 85 | 85 | 806 | 1,428 |
| Current borrowings | (15,502) | – | – | – | – | – | (15,502) |
| Other current financial liabilities | (488) | – | – | – | – | – | (488) |
| Current financial assets | 8,746 | – | – | – | – | – | 8,746 |
| Assets and liabilities available for sale or exchange | 38 | – | – | – | – | – | 38 |
| Cash and cash equivalents | 33,026 | – | – | – | – | – | 33,026 |
| **Net amount before financial expense** | **25,820** | **(6,352)** | **(4,442)** | **(3,271)** | **(3,418)** | **(25,050)** | **(16,713)** |
| Financial expense on non-current financial debt | (662) | (583) | (515) | (449) | (416) | (4,611) | (7,236) |
| Interest differential on swaps | (431) | (312) | (264) | (272) | (221) | (761) | (2,261) |
| **NET AMOUNT** | **24,727** | **(7,247)** | **(5,221)** | **(3,992)** | **(4,055)** | **(30,422)** | **(26,210)** |

**As of December 31, 2021**

| Assets/(Liabilities) (M$) | Less than one year | 1-2 years | 2-3 years | 3-4 years | 4-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|---|
| Non-current financial debt (notional value excluding interests) | – | (6,073) | (6,328) | (4,420) | (3,314) | (28,495) | (48,630) |
| Non-current financial assets excluding derivative financial instruments | – | 41 | 41 | 38 | 37 | 1,365 | 1,522 |
| Current borrowings | (15,035) | – | – | – | – | – | (15,035) |
| Other current financial liabilities | (372) | – | – | – | – | – | (372) |
| Current financial assets | 12,315 | – | – | – | – | – | 12,315 |
| Assets and liabilities available for sale or exchange | 4 | – | – | – | – | – | 4 |
| Cash and cash equivalents | 21,342 | – | – | – | – | – | 21,342 |
| **Net amount before financial expense** | **18,254** | **(6,032)** | **(6,287)** | **(4,382)** | **(3,277)** | **(27,130)** | **(28,854)** |
| Financial expense on non-current financial debt | (821) | (786) | (664) | (576) | (506) | (5,197) | (8,550) |
| Interest differential on swaps | (217) | (235) | (232) | (229) | (221) | (836) | (1,970) |
| **NET AMOUNT** | **17,216** | **(7,053)** | **(7,183)** | **(5,187)** | **(4,004)** | **(33,163)** | **(39,374)** |

**As of December 31, 2020**

| Assets/(Liabilities) (M$) | Less than one year | 1-2 years | 2-3 years | 3-4 years | 4-5 years | More than 5 years | Total |
|---|---|---|---|---|---|---|---|
| Non-current financial debt (notional value excluding interests) | – | (9,849) | (5,762) | (5,990) | (4,321) | (30,951) | (56,873) |
| Non-current financial assets excluding derivative financial instruments | – | 59 | 42 | 45 | 46 | 1,259 | 1,451 |
| Current borrowings | (17,099) | – | – | – | – | – | (17,099) |
| Other current financial liabilities | (203) | – | – | – | – | – | (203) |
| Current financial assets | 4,630 | – | – | – | – | – | 4,630 |
| Assets and liabilities available for sale or exchange | (313) | – | – | – | – | – | (313) |
| Cash and cash equivalents | 31,268 | – | – | – | – | – | 31,268 |
| **Net amount before financial expense** | **18,283** | **(9,790)** | **(5,720)** | **(5,945)** | **(4,275)** | **(29,692)** | **(37,139)** |
| Financial expense on non-current financial debt | (930) | (888) | (825) | (696) | (603) | (5,833) | (9,775) |
| Interest differential on swaps | (163) | (149) | (158) | (173) | (196) | (930) | (1,769) |
| **NET AMOUNT** | **17,190** | **(10,827)** | **(6,703)** | **(6,814)** | **(5,074)** | **(36,455)** | **(48,683)** |

The following table sets forth financial assets and liabilities related to operating activities as of December 31, 2022, 2021 and 2020 (see Note 14 of the Notes to the Consolidated Financial Statements).

| As of December 31, Assets/(Liabilities) (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Accounts payable | (41,346) | (36,837) | (23,574) |
| Other operating liabilities | (35,186) | (27,294) | (14,302) |
| *including derivative financial instruments related to commodity contracts (liabilities)* | *(18,774)* | *(16,166)* | *(3,666)* |
| Accounts receivable, net | 24,378 | 21,983 | 14,068 |
| Other operating receivables | 28,289 | 29,553 | 8,043 |
| *including derivative financial instruments related to commodity contracts (assets)* | *20,220* | *22,412* | *1,428* |
| **TOTAL** | **(23,865)** | **(12,595)** | **(15,765)** |

These financial assets and liabilities mainly have a maturity date below one year.

## Credit risk

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.

TotalEnergies is exposed to credit risks in its operating and financing activities. TotalEnergies' maximum exposure to credit risk is partially related to financial assets recorded on its balance sheet, including energy derivative instruments that have a positive market value.

The following table presents TotalEnergies' maximum credit risk exposure:

| As of December 31, Assets/(Liabilities) (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Loans to equity affiliates *(note 8)* | 3,733 | 4,532 | 5,129 |
| Loans and advances *(note 6)* | 1,837 | 2,107 | 2,458 |
| Other non-current financial assets related to operational activities *(note 6)* | 250 | 312 | 287 |
| Non-current financial assets *(note 15.1)* | 2,731 | 2,404 | 4,781 |
| Accounts receivable *(note 5)* | 24,378 | 21,983 | 14,068 |
| Other operating receivables *(note 5)* | 28,289 | 29,553 | 8,043 |
| Current financial assets *(note 15.1)* | 8,746 | 12,315 | 4,630 |
| Cash and cash equivalents *(note 15.1)* | 33,026 | 21,342 | 31,268 |
| **TOTAL** | **102,990** | **94,548** | **70,664** |

The valuation allowance on accounts receivable, other operating receivables and on loans and advances is detailed in Notes 5 and 6 to the Consolidated Financial Statements.

As part of its credit risk management related to operating and financing activities, TotalEnergies has developed margining agreements with certain counterparties. As of December 31, 2022, the net margin call paid amounted to $2,857 million (against $7,299 million paid as of December 31, 2021 and $(1,556) million paid as of December 31, 2020).

TotalEnergies has established a number of programs for the sale of receivables, without recourse, with various banks, primarily to reduce its exposure to such receivables. As a result of these programs TotalEnergies retains no risk of payment default after the sale, but may continue to service the customer accounts as part of a service arrangement on behalf of the buyer and is required to pay to the buyer payments it receives from the customers relating to the receivables sold. As of December 31, 2022, the net value of receivables sold amounted to $8,681 million. TotalEnergies has substantially transferred all the risks and rewards related to receivables. No financial asset or liability remains recognized in the consolidated balance sheet after the date of sale.

Furthermore, in 2022, TotalEnergies conducted several operations of reverse factoring. The value of factored payables outstanding at year-end is $491 million.

Credit risk is managed by TotalEnergies' business segments as follows:

### - Integrated Gas, Renewables & Power segment

- Gas & Power activities

Trading of gas & power activities deal with counterparties in the energy, industrial and financial sectors throughout the world. Financial institutions providing credit risk coverage are highly rated international banks and insurance groups.

Potential counterparties are subject to credit assessment and approval before concluding transactions and are thereafter subject to regular review, including re-appraisal and approval of the limits previously granted.

The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as data published by rating agencies. On this basis, credit limits are defined for each potential counterparty and, where appropriate, transactions are subject to specific authorizations.

Credit exposure, which is essentially an economic exposure or an expected future physical exposure, is permanently monitored and subject to sensitivity measures.

Credit risk is mitigated by the systematic use of industry standard contractual frameworks that permit netting, enable requiring added security in case of adverse change in the counterparty risk, and allow for termination of the contract upon occurrence of certain events of default.

About the professionals and retail gas and power sales activities, credit risk management policy is adapted to the type of customer either through the use of procedures of prepayments and appropriate collection, especially for mass customers or through credit insurances and sureties/guarantees obtaining. For the Professionals segment, the segregation of duties between the commercial and financial teams allows an “a priori” control of risks.

- Other activities

Internal procedures include rules on credit risk management. Procedures to monitor customer risk are defined at the local level, especially for Saft Groupe and Greenflex (rules for the approval of credit limits, use of guarantees, monitoring and assessment of the receivables portfolio,...).

### - Exploration & Production segment

Risks arising under contracts with government authorities or other oil companies or under long-term supply contracts necessary for the development of projects are evaluated during the project approval process. The long-term aspect of these contracts and the high-quality of the other parties lead to a low level of credit risk.

Risks related to commercial operations, other than those described above (which are, in practice, directly monitored by subsidiaries), are subject to procedures for establishing credit limits and reviewing outstanding balances.

- **Refining & Chemicals segment**

  - Refining & Chemicals activities

Credit risk is primarily related to commercial receivables. Internal procedures of Refining & Chemicals include rules for the management of credit describing the fundamentals of internal control in this domain. Each Business Unit implements the procedures of the activity for managing and provisioning credit risk according to the size of the subsidiary and the market in which it operates. The principal elements of these procedures are:

  - implementation of credit limits with different authorization schemes;
  - use of insurance policies or specific guarantees (letters of credit);
  - regular monitoring and assessment of overdue accounts (aging balance), including dunning procedures.

Counterparties are subject to credit assessment and approval prior to any transaction being concluded. Regular reviews are made for all active counterparties including a re-appraisal and renewing of the granted credit limits. The limits of the counterparties are assessed based on quantitative and qualitative data regarding financial standing, together with the review of any relevant third party and market information, such as that provided by rating agencies and insurance companies.

  - Trading & Shipping activities

Trading & Shipping deals with commercial counterparties and financial institutions located throughout the world. Counterparties to physical and derivative transactions are primarily entities involved in the oil and gas industry or in the trading of energy commodities, or financial institutions. Credit risk coverage is arranged with financial institutions, international banks and insurance groups selected in accordance with strict criteria.

The Trading & Shipping division applies a strict policy of internal delegation of authority in order to set up credit limits by country and counterparty and approval processes for specific transactions. Credit exposures contracted under these limits and approvals are monitored on a daily basis.

Potential counterparties are subject to credit assessment and approval prior to any transaction being concluded and all active counterparties are subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as ratings published by Standard & Poor’s, Moody’s Investors Service and other agencies.

Contractual arrangements are structured so as to maximize the risk mitigation benefits of netting between transactions wherever possible and additional protective terms providing for the provision of security in the event of financial deterioration and the termination of transactions on the occurrence of defined default events are used to the greatest permitted extent.

Credit risks in excess of approved levels are secured by means of letters of credit and other guarantees, cash deposits and insurance arrangements. In respect of derivative transactions, risks are secured by margin call contracts wherever possible.

- **Marketing & Services segment**

Internal procedures for the Marketing & Services division include rules on credit risk that describe the basis of internal control in this domain, including the segregation of duties between commercial and financial operations.

Credit policies are defined at the local level and procedures to monitor customer risk are implemented (credit committees at the subsidiary level, the creation of credit limits for corporate customers, etc.). Each entity also implements monitoring of its outstanding receivables. Risks related to credit may be mitigated or limited by subscription of credit insurance and/or requiring security or guarantees.

# Note 16 Financial instruments related to commodity contracts

## 16.1 FINANCIAL INSTRUMENTS RELATED TO COMMODITY CONTRACTS

**Accounting principles**

Financial instruments related to commodity contracts, including crude oil, petroleum products, gas, and power purchase/sales contracts within the trading activities, together with the commodity contract derivative instruments and freight rate swaps, are used to adjust TotalEnergies' exposure to price fluctuations within global trading limits. According to the industry practice, these instruments are considered as held for trading. Changes in fair value are recorded in the income statement. The fair value of these instruments is recorded in “Other current assets” or “Other creditors and accrued liabilities” depending on whether they are assets or liabilities.

The valuation methodology is to mark-to-market all open positions for both physical and paper transactions. The valuations are determined on a daily basis using observable market data based on organized and over the counter (OTC) markets. In specific cases when market data is not directly available, the valuations are derived from observable data such as arbitrages, freight or spreads and market corroboration. For valuation of risks which are the result of a calculation, such as options for example, commonly known models are used to compute the fair value.

| As of December 31, 2022 (M$) Assets / (Liabilities) | Gross value before offsetting assets | Gross value before offsetting liabilities | Amounts offset assets[c] | Amounts offset liabilities[c] | Net balance sheet value presented assets | Net balance sheet value presented liabilities | Other amounts not offset | Net carrying amount | Fair value[b] |
|---|---|---|---|---|---|---|---|---|---|
| **Integrated Gas, Renewables & Power activities** | | | | | | | | | |
| Swaps | 1,268 | (449) | (18) | 18 | 1,250 | (431) | – | 819 | 819 |
| Forwards[a] | 18,014 | (18,638) | (1,994) | 1,994 | 16,020 | (16,644) | – | (624) | (624) |
| Options | 2,143 | (1) | (1) | 1 | 2,142 | – | – | 2,142 | 2,142 |
| Futures | 13 | (3) | – | – | 13 | (3) | – | 10 | 10 |
| Other/Collateral | – | – | – | – | – | – | (406) | (406) | (406) |
| **Total Integrated Gas, Renewables & Power** | **21,438** | **(19,091)** | **(2,013)** | **2,013** | **19,425** | **(17,078)** | **(406)** | **1,941** | **1,941** |
| **Crude oil, petroleum products and freight rates activities** | | | | | | | | | |
| Petroleum products, crude oil and freight rate swaps | 122 | (114) | (58) | 58 | 64 | (56) | – | 8 | 8 |
| Forwards[a] | 631 | (1,489) | (7) | 7 | 624 | (1,482) | – | (858) | (858) |
| Options | 76 | (227) | (69) | 69 | 7 | (158) | – | (151) | (151) |
| Futures | – | – | – | – | – | – | – | – | – |
| Options on futures | 113 | (13) | (13) | 13 | 100 | – | – | 100 | 100 |
| Other/Collateral | – | – | – | – | – | – | – | – | – |
| **Total crude oil, petroleum products and freight rates** | **942** | **(1,843)** | **(147)** | **147** | **795** | **(1,696)** | **–** | **(901)** | **(901)** |
| **TOTAL** | **22,380** | **(20,934)** | **(2,160)** | **2,160** | **20,220** | **(18,774)** | **(406)** | **1,040** | **1,040** |
| **Total of fair value non recognized in the balance sheet** | | | | | | | | | – |

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

| As of December 31, 2021 (M$) Assets / (Liabilities) | Gross value before offsetting assets | Gross value before offsetting liabilities | Amounts offset assets[c] | Amounts offset liabilities[c] | Net balance sheet value presented assets | Net balance sheet value presented liabilities | Other amounts not offset | Net carrying amount | Fair value[b] |
|---|---|---|---|---|---|---|---|---|---|
| **Integrated Gas, Renewables & Power activities** | | | | | | | | | |
| Swaps | 92 | (385) | (35) | 35 | 57 | (350) | – | (293) | (293) |
| Forwards[a] | 21,752 | (16,954) | (2,120) | 2,120 | 19,632 | (14,834) | – | 4,798 | 4,798 |
| Options | 1,953 | (63) | (3) | 3 | 1,950 | (60) | – | 1,890 | 1,890 |
| Futures | 418 | (430) | (183) | 183 | 235 | (247) | – | (12) | (12) |
| Other/Collateral | – | – | – | – | – | – | 382 | 382 | 382 |
| **Total Integrated Gas, Renewables & Power** | **24,215** | **(17,832)** | **(2,341)** | **2,341** | **21,874** | **(15,491)** | **382** | **6,765** | **6,765** |
| **Crude oil, petroleum products and freight rates activities** | | | | | | | | | |
| Petroleum products, crude oil and freight rate swaps | 245 | (289) | (166) | 166 | 79 | (123) | – | (44) | (44) |
| Forwards[a] | 411 | (444) | (88) | 88 | 323 | (356) | – | (33) | (33) |
| Options | 68 | (236) | (40) | 40 | 28 | (196) | – | (168) | (168) |
| Futures | – | – | – | – | – | – | – | – | – |
| Options on futures | 186 | (78) | (78) | 78 | 108 | – | – | 108 | 108 |
| Other/Collateral | – | – | – | – | – | – | 344 | 344 | 344 |
| **Total crude oil, petroleum products and freight rates** | **910** | **(1,047)** | **(372)** | **372** | **538** | **(675)** | **344** | **207** | **207** |
| **TOTAL** | **25,125** | **(18,879)** | **(2,713)** | **2,713** | **22,412** | **(16,166)** | **726** | **6,972** | **6,972** |
| **Total of fair value non recognized in the balance sheet** | | | | | | | | | – |

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

| As of December 31, 2020 (M$) Assets / (Liabilities) | Gross value before offsetting assets | Gross value before offsetting liabilities | Amounts offset assets[c] | Amounts offset liabilities[c] | Net balance sheet value presented assets | Net balance sheet value presented liabilities | Other amounts not offset | Net carrying amount | Fair value[b] |
|---|---|---|---|---|---|---|---|---|---|
| **Integrated Gas, Renewables & Power activities** | | | | | | | | | |
| Swaps | 10 | (71) | – | – | 10 | (71) | – | (61) | (61) |
| Forwards[a] | 1,372 | (3,113) | (186) | 186 | 1,186 | (2,927) | – | (1,741) | (1,741) |
| Options | (61) | (75) | (13) | 13 | (74) | (62) | – | (136) | (136) |
| Futures | 42 | (32) | (21) | 21 | 21 | (11) | – | 10 | 10 |
| Other/Collateral | – | – | – | – | – | – | 22 | 22 | 22 |
| **Total Integrated Gas, Renewables & Power** | **1,363** | **(3,291)** | **(220)** | **220** | **1,143** | **(3,071)** | **22** | **(1,906)** | **(1,906)** |
| **Crude oil, petroleum products and freight rates activities** | | | | | | | | | |
| Petroleum products, crude oil and freight rate swaps | 302 | (443) | (207) | 207 | 95 | (236) | – | (141) | (141) |
| Forwards[a] | 158 | (297) | (13) | 13 | 145 | (284) | – | (139) | (139) |
| Options | 113 | (125) | (68) | 68 | 45 | (57) | – | (12) | (12) |
| Futures | – | – | – | – | – | – | – | – | – |
| Options on futures | 117 | (135) | (117) | 117 | – | (18) | – | (18) | (18) |
| Other/Collateral | – | – | – | – | – | – | 43 | 43 | 43 |
| **Total crude oil, petroleum products and freight rates** | **690** | **(1,000)** | **(405)** | **405** | **285** | **(595)** | **43** | **(267)** | **(267)** |
| **TOTAL** | **2,053** | **(4,291)** | **(625)** | **625** | **1,428** | **(3,666)** | **65** | **(2,173)** | **(2,173)** |
| **Total of fair value non recognized in the balance sheet** | | | | | | | | | |

(a) Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.
(b) When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.
(c) Amounts offset in accordance with IAS 32.

Commitments on crude oil and refined products have, for the most part, a short-term maturity (less than one year).

The changes in fair value of financial instruments related to commodity contracts are detailed as follows:

| For the year ended December 31, (M$) | Fair value as of January 1, | Impact on income | Settled contracts | Other | Fair value as of December 31, |
|---|---|---|---|---|---|
| **Integrated Gas, Renewables & Power activities** | | | | | |
| **2022** | **6,383** | **11,406** | **(15,628)** | **186** | **2,347** |
| 2021 | (1,928) | 6,817 | 1,408 | 86 | 6,383 |
| 2020 | (260) | 676 | (2,348) | 4 | (1,928) |
| **Crude oil, petroleum products and freight rates activities** | | | | | |
| **2022** | **(137)** | **5,891** | **(6,655)** | **–** | **(901)** |
| 2021 | (310) | 3,950 | (3,777) | – | (137) |
| 2020 | (282) | 3,813 | (3,841) | – | (310) |

The fair value hierarchy for financial instruments related to commodity contracts is as follows:

| As of December 31, 2022 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Integrated Gas, Renewables & Power activities | 1,034 | 1,678 | (365) | 2,347 |
| Crude oil, petroleum products and freight rates activities | 98 | (999) | – | (901) |
| **TOTAL** | **1,132** | **679** | **(365)** | **1,446** |

| As of December 31, 2021 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Integrated Gas, Renewables & Power activities | 3,716 | (3,563) | 6,230 | 6,383 |
| Crude oil, petroleum products and freight rates activities | 134 | (271) | – | (137) |
| **TOTAL** | **3,850** | **(3,834)** | **6,230** | **6,246** |

| As of December 31, 2020 (M$) | Quoted prices in active markets for identical assets (level 1) | Prices based on observable data (level 2) | Prices based on non observable data (level 3) | Total |
|---|---|---|---|---|
| Integrated Gas, Renewables & Power activities | (159) | (361) | (1,408) | (1,928) |
| Crude oil, petroleum products and freight rates activities | 10 | (320) | – | (310) |
| **TOTAL** | **(149)** | **(681)** | **(1,408)** | **(2,238)** |

Financial instruments classified as level 3 are mainly composed of long-term liquefied natural gas purchase and sale contracts which relate to the trading activity.

The management of positions is carried out on the basis of a net value of LNG purchase and sale commitments; the valuation of contracts is based on observable market data, such as commodity forward prices, but it also takes into account unobservable data on contract performance (assumptions on the variable terms of the contracts, on the availability of infrastructures, on the performance of counterparties).

The valuation of LNG contracts is sensitive to changes in oil and natural gas prices on North American, Asian and European markets, as well as to these assumptions on contract performance.

TotalEnergies' management horizon is 12 months in 2022 (as in 2021 and 2020), and includes the full annual delivery program of LNG cargoes for the following year.

The analysis of the fair value of the LNG portfolio over the period beyond 12 months carried out by the Company, allows to verify that there is no material asset or liability to be recognized in its accounts for that period. This analysis, which takes into account the specific characteristics of LNG contracts and of the gas market, including its liquidity, incorporates valuation parameters that are unobservable over this period, in particular Company internal assumptions on the long-term evolution of hydrocarbon prices, the execution of contracts and the performance of counterparties, the renegotiation of price terms in contracts or the exercise of their contractual flexibilities.

The description of each fair value level is presented in Note 15 to the Consolidated Financial Statements.

### Cash Flow hedge

The impact on the income statement and other comprehensive income of the hedging instruments related to commodity contracts and qualified as cash flow hedges is detailed as follows:

**As of December 31**

| (M$) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Profit (Loss) recorded in other comprehensive income of the period | (5,524) | 445 | 14 |
| Recycled amount from other comprehensive income to the income statement of the period | 1,317 | (56) | (1) |

These financial instruments are mainly one year term Henry Hub derivatives and European gas, power and $CO_2$ emission rights derivatives.

As of December 31, 2022, the ineffective portion of these financial instruments is $132 million (in 2021 and in 2020 the ineffective portion of the financial instruments was nil).

## 16.2 Oil, Gas and Power markets related risks management

Due to the nature of its business, TotalEnergies has significant oil and gas trading activities as part of its day-to-day operations in order to optimize revenues from its oil and gas production and to obtain favorable pricing to supply its refineries.

In its international oil trading business, TotalEnergies usually follows a policy of not selling its future production. However, in connection with this trading business, TotalEnergies, like most other oil companies, uses energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, and power. TotalEnergies also uses freight rate derivative contracts in its shipping business to adjust its exposure to freight-rate fluctuations. To hedge against this risk, TotalEnergies uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets. The list of the different derivatives held by TotalEnergies in these markets is detailed in Note 16.1 to the Consolidated Financial Statements.

As part of its gas and power trading activity, TotalEnergies also uses derivative instruments such as futures, forwards, swaps and options in both organized and over-the-counter markets. In general, the transactions are settled at maturity date through physical delivery. TotalEnergies measures its market risk exposure, *i.e.* potential loss in fair values, on its trading business using a “value-at-risk” technique. This technique is based on a historical model and makes an assessment of the market risk arising from possible future changes in market values over a one-day period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the past two years for all instruments and maturities in the global trading business.

### Integrated Gas, Renewables & Power division trading: "value-at-risk" with a 97.5% probability

**As of December 31,**

| (M$) | High | Low | Average | Year end |
|---|---|---|---|---|
| **2022** | **119** | **15** | **53** | **92** |
| 2021 | 80 | 9 | 28 | 30 |
| 2020 | 51 | 6 | 21 | 27 |

The Trading & Shipping division measures its market risk exposure, *i.e.* potential loss in fair values, on its crude oil, refined products and freight rates trading activities using a “value-at-risk” technique. This technique is based on a historical model and makes an assessment of the market risk arising from possible future changes in market values over a 24-hour period. The calculation of the range of potential changes in fair values is based on the end-of-day exposures and historical price movements of the last 400 business days for all traded instruments and maturities. Options are systematically re-evaluated using appropriate models.

The “value-at-risk” represents the most unfavorable movement in fair value obtained with a 97.5% confidence level. This means that TotalEnergies’ portfolio result is likely to exceed the value-at-risk loss measure once over 40 business days if the portfolio exposures were left unchanged.

### Trading & Shipping: "value-at-risk with" a 97.5% probability

**As of December 31,**

| (M$) | High | Low | Average | Year end |
|---|---|---|---|---|
| **2022** | **48** | **9** | **22** | **27** |
| 2021 | 36 | 9 | 18 | 12 |
| 2020 | 30 | 6 | 15 | 19 |

TotalEnergies has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of control and front-office functions and on an integrated information system that enables real-time monitoring of trading activities.

Limits on trading positions are approved by TotalEnergies’ Executive Committee and are monitored daily. To increase flexibility and encourage liquidity, hedging operations are performed with numerous independent operators, including other oil companies, major energy producers or consumers and financial institutions. TotalEnergies has established counterparty limits and monitors outstanding amounts with each counterparty on an ongoing basis.

# Note 17 Post closing events

**TotalEnergies’ investments in India**

Following the allegations against Adani Group published on January 24, 2023 by Hindenburg Research, TotalEnergies issued a statement on February 3, 2023 providing the following clarifications on its joint investments in India, in partnership with Adani since 2018.

The following table lists TotalEnergies' current stakes in partnerships with Adani:

| | |
|---|---|
| Adani Total Private Limited | 50 % |
| Adani Total Gas Limited (quoted) | 37.4 % |
| Adani Green Energy Limited (quoted) | 19.75 % |
| AGEL23 | 50 % |

TotalEnergies' exposure resulting from these stakes represents 2.4% ($3.1 billion at December 31, 2022) of the Company's capital employed and $180 million of net operating income in 2022. These investments being accounted for under the equity method, TotalEnergies has not performed any re-evaluation in its accounts of its stakes in the listed entities ATGL and AGEL in relation to the increase in their stock values.

# Note 18 Consolidation scope

As of December 31, 2022, 1,149 entities are consolidated of which 169 are accounted for under the equity method (E).

The table below presents a comprehensive list of the consolidated entities:

| Business segment | Statutory corporate name | % Company interest | Method | Country of incorporation | Country of operations |
|---|---|---|---|---|---|
| Exploration & Production | | | | | |
| | Abu Dhabi Gas Industries Limited | 15.00 % | E | United Arab Emirates | United Arab Emirates |
| | Angola LNG Supply Services, LLC | 13.60 % | E | United States | United States |
| | Bonny Gas Transport Limited | 15.00 % | E | Bermuda | Nigeria |
| | Brass Holdings B.V. | 100.00 % | | Netherlands | Nigeria |
| | Brass LNG Limited | 20.48 % | E | Nigeria | Nigeria |
| | Congo Forest Company (CFC) | 100.00 % | | Congo | Congo |
| | Deer Creek Pipelines Limited | 75.00 % | | Canada | Canada |
| | Dolphin Energy Limited | 24.50 % | E | United Arab Emirates | United Arab Emirates |
| | E.F. Oil And Gas Limited | 100.00 % | | United Kingdom | United Kingdom |
| | East African Crude Oil Pipeline (EACOP) Ltd | 62.00 % | E | United Kingdom | Uganda |
| | Elf E&P | 100.00 % | | France | France |
| | Elf Exploration UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Elf Petroleum Iran | 100.00 % | | France | Iran |
| | Elf Petroleum UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Gas Investment and Services Company Limited | 10.00 % | E | Bermuda | Oman |
| | Global Forestry Development (GFD) | 49.00 % | E | Belgium | Belgium |
| | Mabruk Oil Operations | 49.02 % | | France | Libya |
| | Marsa LNG LLC | 80.00 % | | Oman | Oman |
| | Norpipe Oil A/S | 34.93 % | E | Norway | Norway |
| | Norpipe Petroleum UK Limited | 45.22 % | E | United Kingdom | Norway |
| | Norpipe Terminal Holdco Limited | 45.22 % | E | United Kingdom | Norway |
| | Norsea Pipeline Limited | 45.22 % | E | United Kingdom | Norway |
| | North Oil Company | 30.00 % | E | Qatar | Qatar |
| | Northern Lights JV DA | 33.33 % | E | Norway | Norway |
| | Pars LNG Limited | 40.00 % | E | Bermuda | Iran |
| | Private Oil Holdings Oman Limited | 10.00 % | E | United Kingdom | Oman |
| | Stogg Eagle Funding B.V. | 100.00 % | | Netherlands | Nigeria |
| | TOQAP Guyana B.V. | 60.00 % | | Netherlands | Guyana |
| | Total Austral | 100.00 % | | France | Argentina |
| | Total E&P Al Shaheen A/S | 100.00 % | | Denmark | Qatar |
| | Total E&P Angola Block 15/06 | 100.00 % | | France | Angola |
| | Total E&P Angola Block 16 | 100.00 % | | France | Angola |
| | Total E&P Angola Block 16 Holdings | 100.00 % | | France | Angola |
| | Total E&P Angola Block 33 | 100.00 % | | France | Angola |
| | Total E&P Angola Block 39 | 100.00 % | | France | Angola |
| | Total E&P Chine | 100.00 % | | France | China |
| | Total E&P Chissonga | 100.00 % | | France | Angola |
| | Total E&P Dunga GmbH | 100.00 % | | Germany | Kazakhstan |
| | Total E&P East El Burullus Offshore B.V. | 100.00 % | | Netherlands | Egypt |
| | Total E&P Egypt Block 2 B.V. | 100.00 % | | Netherlands | Egypt |
| | Total E&P Egypt Offshore Western Desert B.V. | 100.00 % | | Netherlands | Egypt |
| | Total E&P Egypte | 100.00 % | | France | Egypt |
| | Total E&P Guyane Francaise | 100.00 % | | France | France |
| | Total E&P Jutland Denmark B.V. | 100.00 % | | Netherlands | Denmark |
| | Total E&P Kurdistan Region of Iraq (Harir) B.V. | 100.00 % | | Netherlands | Iraq |
| | Total E&P Kurdistan Region of Iraq (Safen) B.V. | 100.00 % | | Netherlands | Iraq |
| | Total E&P Kurdistan Region of Iraq (Taza) B.V. | 100.00 % | | Netherlands | Iraq |
| | Total E&P Kurdistan Region of Iraq B.V. | 100.00 % | | Netherlands | Iraq |
| | Total E&P M2 Holdings Limited | 100.00 % | | South Africa | South Africa |

| | | | |
|---|---|---|---|
| Total E&P Myanmar | 100.00 % | France | Myanmar |
| Total E&P Participations Petrolieres Congo | 100.00 % | Congo | Congo |
| Total E&P Philippines B.V. | 100.00 % | Netherlands | Philippines |
| Total E&P RDC | 100.00 % | Democratic Republic of Congo | Democratic Republic of Congo |
| Total E&P Services China Company Limited | 100.00 % | China | China |
| Total E&P South Pars | 100.00 % | France | Iran |
| Total E&P South Sudan | 100.00 % | France | Republic of South Sudan |
| Total E&P Syrie | 100.00 % | France | Syrian Arab Republic |
| Total E&P Tajikistan B.V. | 100.00 % | Netherlands | Tajikistan |
| Total Oil and Gas South America | 100.00 % | France | France |
| Total Pars LNG | 100.00 % | France | France |
| Total South Pars | 100.00 % | France | Iran |
| Total Venezuela | 100.00 % | France | France |
| TotalEnergies Anchor USA LLC | 100.00 % | United States | United States |
| TotalEnergies BTC B.V. | 100.00 % | Netherlands | Azerbaijan |
| TotalEnergies Denmark ASW | 100.00 % | United States | Denmark |
| TotalEnergies Denmark ASW Pipeline ApS | 100.00 % | Denmark | Denmark |
| TotalEnergies E&P Algérie | 100.00 % | France | Algeria |
| TotalEnergies E&P Algérie Berkine A/S | 100.00 % | Denmark | Algeria |
| TotalEnergies E&P Americas LLC | 100.00 % | United States | United States |
| TotalEnergies E&P Colombie | 100.00 % | France | Colombia |
| TotalEnergies E&P New Ventures Inc. | 100.00 % | United States | United States |
| TotalEnergies E&P North Sea UK Ltd | 100.00 % | United Kingdom | United Kingdom |
| TotalEnergies E&P Research & Technology USA LLC | 100.00 % | United States | United States |
| TotalEnergies E&P UK Ltd | 100.00 % | United Kingdom | United Kingdom |
| TotalEnergies E&P USA Inc. | 100.00 % | United States | United States |
| TotalEnergies E&P USA Oil Shale LLC | 100.00 % | United States | United States |
| TotalEnergies E&P USA Well Containment LLC | 100.00 % | United States | United States |
| TotalEnergies East Africa Midstream B.V. | 100.00 % | Netherlands | Uganda |
| TotalEnergies EP (Brunei) B.V. | 100.00 % | Netherlands | Brunei |
| TotalEnergies EP Absheron B.V. | 100.00 % | Netherlands | Azerbaijan |
| TotalEnergies EP Abu Al Bu Khoosh | 100.00 % | France | United Arab Emirates |
| TotalEnergies EP Angola | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 17.06 | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 25 | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 29 | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 32 | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 40 | 100.00 % | France | Angola |
| TotalEnergies EP Angola Block 48 B.V. | 100.00 % | Netherlands | Angola |
| TotalEnergies EP Angola Blocks 20-21 | 100.00 % | France | Angola |
| TotalEnergies EP Asia Pacific Pte. Ltd | 100.00 % | Singapore | Singapore |
| TotalEnergies EP Azerbaijan B.V. | 100.00 % | Netherlands | Azerbaijan |
| TotalEnergies EP Block 9 | 100.00 % | France | Lebanon |
| TotalEnergies EP Bolivie | 100.00 % | France | Bolivia |
| TotalEnergies EP Brasil Ltda | 100.00 % | Brazil | Brazil |
| TotalEnergies EP Bulgaria B.V. | 100.00 % | Netherlands | Bulgaria |
| TotalEnergies EP Cambodge | 100.00 % | France | Cambodia |
| TotalEnergies EP Canada Ltd | 100.00 % | Canada | Canada |
| TotalEnergies EP Company UK Ltd | 100.00 % | United Kingdom | United Kingdom |
| TotalEnergies EP Congo | 85.00 % | Congo | Congo |
| TotalEnergies EP Côte d'Ivoire B.V. | 100.00 % | Netherlands | Côte d'Ivoire |
| TotalEnergies EP Cyprus B.V. | 100.00 % | Netherlands | Cyprus |
| TotalEnergies EP Danmark A/S | 100.00 % | Denmark | Denmark |
| TotalEnergies EP Danmark A/S - CPH | 100.00 % | Denmark | Denmark |
| TotalEnergies EP Dolphin Holdings | 100.00 % | France | France |
| TotalEnergies EP Dolphin Midstream | 100.00 % | France | France |
| TotalEnergies EP Dolphin Upstream | 100.00 % | France | Qatar |
| TotalEnergies EP France | 100.00 % | France | France |
| TotalEnergies EP Gabon | 58.28 % | Gabon | Gabon |
| TotalEnergies EP Gass Handel Norge AS | 100.00 % | Norway | Norway |
| TotalEnergies EP Gastransport Nederland B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies EP Golfe | 100.00 % | France | Qatar |
| TotalEnergies EP Greece B.V. | 100.00 % | Netherlands | Greece |
| TotalEnergies EP Guyana B.V. | 100.00 % | Netherlands | Guyana |
| TotalEnergies EP Holding UAE B.V. | 100.00 % | Netherlands | United Arab Emirates |

| | | | |
|---|---|---|---|
| TotalEnergies EP Holdings Russia | 100.00 % | France | France |
| TotalEnergies EP International K1 Ltd | 100.00 % | United Kingdom | Kenya |
| TotalEnergies EP International K2 Ltd | 100.00 % | United Kingdom | Kenya |
| TotalEnergies EP International K3 Ltd | 100.00 % | United Kingdom | Kenya |
| TotalEnergies EP International Ltd | 100.00 % | United Kingdom | Kenya |
| TotalEnergies EP Iran B.V. | 100.00 % | Netherlands | Iran |
| TotalEnergies EP Iraq | 100.00 % | France | Iraq |
| TotalEnergies EP Italia S.p.A. | 100.00 % | Italy | Italy |
| TotalEnergies EP Kazakhstan | 100.00 % | France | Kazakhstan |
| TotalEnergies EP Kenya B.V. | 100.00 % | Netherlands | Kenya |
| TotalEnergies EP Liban S.A.L. | 100.00 % | Lebanon | Lebanon |
| TotalEnergies EP Libye | 100.00 % | France | Libya |
| TotalEnergies EP Lower Zakum B.V. | 100.00 % | Netherlands | United Arab Emirates |
| TotalEnergies EP Malaysia | 100.00 % | France | Malaysia |
| TotalEnergies EP Mauritania Block C18 B.V. | 100.00 % | Netherlands | Mauritania |
| TotalEnergies EP Mauritania Block C9 B.V. | 100.00 % | Netherlands | Mauritania |
| TotalEnergies EP Mauritania Blocks DW B.V. | 100.00 % | Netherlands | Mauritania |
| TotalEnergies EP Mauritanie | 100.00 % | France | Mauritania |
| TotalEnergies EP M'Bridge B.V. | 100.00 % | Netherlands | Angola |
| TotalEnergies EP Mexico S.A. de C.V. | 100.00 % | Mexico | Mexico |
| TotalEnergies EP Namibia B.V. | 100.00 % | Netherlands | Namibia |
| TotalEnergies EP Nederland B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies EP Nigeria Deepwater A Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater B Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater C Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater D Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater E Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater F Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater G Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Deepwater H Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria Ltd | 100.00 % | Nigeria | Nigeria |
| TotalEnergies EP Nigeria S.A.S. | 100.00 % | France | France |
| TotalEnergies EP Norge AS | 100.00 % | Norway | Norway |
| TotalEnergies EP Oman Block 11 B.V. | 100.00 % | France | Oman |
| TotalEnergies EP Oman S.A.S. | 100.00 % | France | Oman |
| TotalEnergies EP Petroleum Angola | 100.00 % | France | Angola |
| TotalEnergies EP Pipelines Danmark A/S | 100.00 % | Denmark | Denmark |
| TotalEnergies EP Profils Petroliers | 100.00 % | France | France |
| TotalEnergies EP Qatar | 100.00 % | France | Qatar |
| TotalEnergies EP Qatar 2 | 100.00 % | France | Qatar |
| TotalEnergies EP Ratawi Hub | 100.00 % | France | Iraq |
| TotalEnergies EP Russie | 100.00 % | France | Russia |
| TotalEnergies EP Sao Tome and Principe B.V. | 100.00 % | Netherlands | Angola |
| TotalEnergies EP Sebuku | 100.00 % | France | Indonesia |
| TotalEnergies EP Senegal | 100.00 % | France | Senegal |
| TotalEnergies EP Services Brazil B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies EP South Africa B.V. | 100.00 % | Netherlands | South Africa |
| TotalEnergies EP South Africa Block 567 (Pty) Ltd | 100.00 % | South Africa | South Africa |
| TotalEnergies EP Suriname B.V. | 100.00 % | Netherlands | Suriname |
| TotalEnergies EP Thailand | 100.00 % | France | Thailand |
| TotalEnergies EP UAE Unconventional Gas B.V. | 100.00 % | Netherlands | United Arab Emirates |
| TotalEnergies EP Uganda S.A.S. | 100.00 % | France | Uganda |
| TotalEnergies EP Umm Shaif Nasr B.V. | 100.00 % | Netherlands | United Arab Emirates |
| TotalEnergies EP Venezuela B.V. | 100.00 % | Netherlands | Venezuela |
| TotalEnergies EP Vostok LLC | 100.00 % | Russia | Russia |
| TotalEnergies EP Waha | 100.00 % | Cayman Islands | Libya |
| TotalEnergies EP Well Response | 100.00 % | France | France |
| TotalEnergies EP Yemen | 100.00 % | France | Yemen |
| TotalEnergies EP Yemen Block 3 B.V. | 100.00 % | Netherlands | Yemen |
| TotalEnergies Holdings EACOP S.A.S. | 100.00 % | France | Uganda |
| TotalEnergies Holdings International B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies Holdings Nederland B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies Jack USA LLC | 100.00 % | United States | United States |
| TotalEnergies LNG Supply Services USA | 100.00 % | United States | United States |
| TotalEnergies Nature Based Solutions | 100.00 % | France | France |

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| | TotalEnergies Nature Based Solutions II | 100.00 % | | France | France |
| | TotalEnergies Nederland Facilities Management B.V. | 100.00 % | | Netherlands | Netherlands |
| | TotalEnergies Offshore GB Ltd | 100.00 % | | United Kingdom | United Kingdom |
| | TotalEnergies Offshore UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| | TotalEnergies Petróleo & Gás Brasil Ltda | 100.00 % | | Brazil | Brazil |
| | TotalEnergies Shipping Brazil B.V. | 100.00 % | | Netherlands | Brazil |
| | TotalEnergies Termokarstovoye S.A.S. | 100.00 % | | France | France |
| | TotalEnergies Upstream Danmark A/S | 100.00 % | | Denmark | Denmark |
| | TotalEnergies Upstream Nigeria | 100.00 % | | Nigeria | Nigeria |
| | TotalEnergies Upstream UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| | Uintah Colorado Resources, LLC | 66.67 % | | United States | United States |
| | Uintah Colorado Resources II, LLC | 100.00 % | | United States | United States |

| Business segment | Statutory corporate name | % Company interest | Method | Country of incorporation | Country of operations |
|---|---|---|---|---|---|
| **Integrated Gas, Renewables & Power** | | | | | |
| | Abarloar Solar S.L.U. | 100.00 % | | Spain | Spain |
| | Abu Dhabi Gas Liquefaction Company Limited | 5.00 % | E | United Arab Emirates | United Arab Emirates |
| | Adani Gas Limited AGL | 37.40 % | E | India | India |
| | Adani Green Energy Ltd | 19.75 % | E | India | India |
| | Adani Green Energy Twenty Three Limited | 50.00 % | E | India | India |
| | Adani Total Private Limited (d) | 50.00 % | E | India | India |
| | Advanced Thermal Batteries Inc. | 50.00 % | E | United States | United States |
| | Aerospatiale Batteries (ASB) | 50.00 % | E | France | France |
| | Aerowatt Energies | 65.00 % | E | France | France |
| | Aerowatt Energies 2 | 51.00 % | E | France | France |
| | Al Kharsaa Solar Holdings B.V. | 49.00 % | E | Netherlands | Netherlands |
| | Alamo Solarbay S.L.U. | 100.00 % | | Spain | Spain |
| | Alcad AB | 100.00 % | | Sweden | Sweden |
| | Alicante | 50.00 % | E | France | France |
| | Alicante 2 | 50.00 % | E | France | France |
| | Altergie Territoires 2 | 44.58 % | E | France | France |
| | Altergie Territoires 3 | 50.00 % | E | France | France |
| | Amber Solar Power Cinco, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Cuatro, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Dieciseis, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Diez, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Nueve, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Quince, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Tres, S.L. | 65.00 % | E | Spain | Spain |
| | Amber Solar Power Uno, S.L. | 65.00 % | E | Spain | Spain |
| | Amura Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Anayet Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Anclote Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Ancora Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Andromeda Solarbay HP S.L. | 100.00 % | | Spain | Spain |
| | Angola LNG Ltd | 13.60 % | E | Bermuda | Angola |
| | Arbotante Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Arctic LNG 2 LLC | 10.00 % | E | Russia | Russia |
| | Armada Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | ATJV Offshore | 50.00 % | E | Singapore | Singapore |
| | Atolón Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Attentive Energy, LLC | 84.00 % | E | United States | United States |
| | Auriga Generacion S.L. | 100.00 % | | Spain | Spain |
| | Automotive Cells Company, S.E. | 33.33 % | E | France | France |
| | Baker Creek Solar, LLC | 100.00 % | | United States | United States |
| | Baser Comercializadora de Referencia | 100.00 % | | Spain | Spain |
| | BioBearn S.A.S. | 100.00 % | | France | France |
| | BioDeac S.A.S. | 65.00 % | E | France | France |
| | BioGasconha S.A.S. | 100.00 % | | France | France |
| | Biogaz Breuil | 100.00 % | | France | France |
| | Biogaz Chatillon | 100.00 % | | France | France |
| | Biogaz Corcelles | 100.00 % | | France | France |
| | Biogaz Epinay | 100.00 % | | France | France |
| | Biogaz Libron | 100.00 % | | France | France |
| | Biogaz Milhac | 100.00 % | | France | France |

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|---|---|---|---|---|
| Biogaz Soignolles | 100.00 % | | France | France |
| Biogaz Torcy | 100.00 % | | France | France |
| Biogaz Vert Le Grand | 100.00 % | | France | France |
| Biogaz Viriat | 100.00 % | | France | France |
| BioLoie S.A.S. | 55.00 % | E | France | France |
| BioPommeria S.A.S. | 100.00 % | | France | France |
| BioQuercy S.A.S. | 66.00 % | E | France | France |
| Bioroussillon S.A.S. | 100.00 % | | France | France |
| Biovilleneuvois S.A.S. | 100.00 % | | France | France |
| Blue Gem Wind Limited | 80.00 % | E | United Kingdom | United Kingdom |
| Brazoria Solar I, LLC | 100.00 % | | United States | United States |
| Brazoria Solar II, LLC | 100.00 % | | United States | United States |
| Cameron LNG Holdings LLC | 16.60 % | E | United States | United States |
| Castille | 50.00 % | E | France | France |
| Cefeo Solar S.L. | 100.00 % | | Spain | Spain |
| Centaurus Environment S.L.U. | 100.00 % | | Spain | Spain |
| Central Solaire RENFR 331 | 100.00 % | | France | France |
| Centrale Eolienne De La Vallee Gentillesse | 74.80 % | | France | France |
| Centrale Hydrolique Alas | 100.00 % | | France | France |
| Centrale Hydrolique Ardon | 90.00 % | | France | France |
| Centrale Hydrolique Arvan | 100.00 % | | France | France |
| Centrale Hydrolique Barbaira | 100.00 % | | France | France |
| Centrale Hydrolique Bonnant | 100.00 % | | France | France |
| Centrale Hydrolique Gavet | 100.00 % | | France | France |
| Centrale Hydrolique Miage | 100.00 % | | France | France |
| Centrale Hydrolique Previnquieres | 100.00 % | | France | France |
| Centrale Photovoltaique De Merle Sud | 40.58 % | E | France | France |
| Centrale Solaire 2 | 100.00 % | | France | France |
| Centrale Solaire 21.09-4 | 100.00 % | | France | France |
| Centrale Solaire APV R&D | 100.00 % | | France | France |
| Centrale Solaire Autoprod | 100.00 % | | France | France |
| Centrale Solaire Beauce Val de Loire | 60.00 % | | France | France |
| Centrale Solaire Borde Blanche | 100.00 % | | France | France |
| Centrale Solaire Cet d'Al Gouty | 100.00 % | | France | France |
| Centrale Solaire Chemin De Melette | 51.00 % | E | France | France |
| Centrale Solaire De Cazedarnes | 75.00 % | | France | France |
| Centrale Solaire Dom | 100.00 % | | France | France |
| Centrale Solaire Du Centre Ouest | 100.00 % | | France | France |
| Centrale Solaire Du Lavoir | 60.00 % | | France | France |
| Centrale Solaire Estarac | 35.00 % | E | France | France |
| Centrale Solaire Forum Laudun | 100.00 % | | France | France |
| Centrale Solaire Gatilles | 100.00 % | | France | France |
| Centrale Solaire Golbey | 100.00 % | | France | France |
| Centrale Solaire Guinots | 60.00 % | E | France | France |
| Centrale Solaire Heliovale | 59.63 % | E | France | France |
| Centrale Solaire La Potence | 100.00 % | | France | France |
| Centrale Solaire La Roquette | 100.00 % | | France | France |
| Centrale Solaire La Tastere | 60.00 % | E | France | France |
| Centrale Solaire Lacoste | 100.00 % | | France | France |
| Centrale Solaire Larampeau | 100.00 % | | France | France |
| Centrale Solaire Les Cordeliers | 83.98 % | | France | France |
| Centrale Solaire Les Cordeliers 2 | 75.00 % | | France | France |
| Centrale Solaire Lodes | 50.00 % | E | France | France |
| Centrale Solaire Lot 1 | 100.00 % | | France | France |
| Centrale Solaire Mazeran Lr | 50.00 % | E | France | France |
| Centrale Solaire Merle Sud 2 | 60.00 % | E | France | France |
| Centrale Solaire Olinoca | 10.00 % | E | France | France |
| Centrale Solaire Ombrieres Cap Agathois | 83.98 % | | France | France |
| Centrale Solaire Ombrieres De Blyes | 60.00 % | | France | France |
| Centrale Solaire Plateau De Pouls | 51.00 % | | France | France |
| Centrale Solaire Pouy Negue 2 | 100.00 % | | France | France |
| Centrale Solaire RENFR 436 | 100.00 % | | France | France |
| Centrale Solaire Solarshare Bordeaux | 100.00 % | | France | France |
| Centrale Solaire Terre du Roi | 100.00 % | | France | France |
| Centrale Solaire Toiture Josse | 60.00 % | E | France | France |
| Centrale Solaire Vauvoix | 60.00 % | E | France | France |

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|---|---|---|---|---|
| Centrale Solaire Zabo 2 | 100.00 % | | France | France |
| Cerezo Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Cidra Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Circinus Energy S.L. | 100.00 % | | Spain | Spain |
| Clinton Solar, LLC | 100.00 % | | United States | United States |
| Colón LNG Marketing S. de R. L. | 50.00 % | E | Panama | Panama |
| Columba Renovables S.L.U. | 100.00 % | | Spain | Spain |
| Comanche Solar, LLC | 100.00 % | | United States | United States |
| Core Energy Development, LLC | 100.00 % | | United States | United States |
| Core Fund 1, LLC | 100.00 % | | United States | United States |
| Core Solar Capital, LLC | 100.00 % | | United States | United States |
| Core Solar Data, LLC | 100.00 % | | United States | United States |
| Core Solar Development, LLC | 100.00 % | | United States | United States |
| Core Solar DG, LLC | 100.00 % | | United States | United States |
| Core Solar Holdings I, LLC | 100.00 % | | United States | United States |
| Core Solar Land Holdings I, LLC | 100.00 % | | United States | United States |
| Core Solar SPV X, LLC | 100.00 % | | United States | United States |
| Core Solar SPV XV, LLC | 100.00 % | | United States | United States |
| Core Solar SPV XXIV, LLC | 100.00 % | | United States | United States |
| Core Solar, LLC | 100.00 % | | United States | United States |
| Cote d'Ivoire GNL | 34.00 % | E | Côte d'Ivoire | Côte d'Ivoire |
| Cottonwood Bayou Solar, LLC | 100.00 % | | United States | United States |
| Cowtown Solar, LLC | 100.00 % | | United States | United States |
| Crc Kern Front Tugboat, LLC | 100.00 % | | United States | United States |
| CS Carrefour de l'Europe | 100.00 % | | France | France |
| CS Les Comottes | 100.00 % | | France | France |
| CS QUADRAO 2 | 100.00 % | | United States | United States |
| Cygnus Environment S.L. | 100.00 % | | Spain | Spain |
| Danish Fields Solar, LLC | 100.00 % | | United States | United States |
| Del Rio Funding LLC [(a)] | 59.57 % | E | United States | United States |
| ECA LNG Holdings B.V. | 16.60 % | E | Netherlands | Netherlands |
| Eclipse Solar SPA | 100.00 % | | Chile | Chile |
| Edelweis Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Energie Developpement | 50.00 % | E | France | France |
| Eole Boin | 100.00 % | | France | France |
| Eole Champagne Conlinoise | 66.00 % | E | France | France |
| Eole Dadoud | 100.00 % | | France | France |
| Eole Fonds Caraibes | 100.00 % | | France | France |
| Eole Grand Maison | 100.00 % | | France | France |
| Eole La Montagne | 87.60 % | | France | France |
| Eole La Perriere S.A.R.L. | 100.00 % | | France | France |
| Eole Morne Carriere | 100.00 % | | France | France |
| Eole Yate | 100.00 % | | France | France |
| Eolmed | 20.00 % | E | France | France |
| Evergreen Solar, LLC | 100.00 % | | United States | United States |
| Falla Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Fast Jung KB | 100.00 % | | Sweden | Sweden |
| Fleming Solar, LLC | 100.00 % | | United States | United States |
| Fluxsol | 100.00 % | | France | France |
| Fonroche Energies Renouvelables S.A.S. | 100.00 % | | France | France |
| Frieman & Wolf Batterietechnick GmbH | 100.00 % | | Germany | Germany |
| G.K. Succeed Tsu Haze | 45.00 % | E | Japan | Japan |
| Galibier | 50.00 % | E | France | France |
| Garonne-et-Canal Energies | 100.00 % | | France | France |
| Gas Del Litoral SRLCV | 25.00 % | E | Mexico | Mexico |
| GIP III Zephyr Holdings, LLC | 50.00 % | E | United States | United States |
| Glaciere De Palisse | 100.00 % | | France | France |
| Global LNG Armateur S.A.S. | 100.00 % | | France | France |
| Global LNG Downstream S.A.S. | 100.00 % | | France | France |
| Global LNG North America Corporation | 100.00 % | | United States | United States |
| Global LNG S.A.S. | 100.00 % | | France | France |
| Go Electric | 100.00 % | | United States | United States |
| Golden Triangle Solar, LLC | 100.00 % | | United States | United States |
| Goodfellow Solar III, LLC | 100.00 % | | United States | United States |
| Gray Whale Offshore Wind Power No.1 Co., Ltd | 42.50 % | E | South Korea | South Korea |
| Gray Whale Offshore Wind Power No.2 Co., Ltd | 42.50 % | E | South Korea | South Korea |

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| Gray Whale Offshore Wind Power No.3 Co. Ltd | 42.50 % | E | South Korea | South Korea |
| Greenflex Actirent Group, S.L. | 100.00 % | | Spain | Spain |
| Greenflex S.A.S. | 100.00 % | | France | France |
| Grillete Solar, S.L.U. | 100.00 % | | Spain | Spain |
| GT R4 Holding Limited | 50.00 % | E | United Kingdom | United Kingdom |
| Gulf Total Tractebel Power Company PSJC | 20.00 % | E | United Arab Emirates | United Arab Emirates |
| Hanwha Total Solar II, LLC | 50.00 % | E | United States | United States |
| Hanwha Total Solar, LLC | 50.00 % | E | United States | United States |
| Helio 100 Kw | 100.00 % | | France | France |
| Helio 971 | 100.00 % | | France | France |
| Helio 974 Sol 1 | 100.00 % | | France | France |
| Helio 974 Toiture 2 | 100.00 % | | France | France |
| Helio Fonds Caraibes | 100.00 % | | France | France |
| Helio L'R | 100.00 % | | France | France |
| Helio Saint Benoit | 100.00 % | | France | France |
| Helio Wabealo | 100.00 % | | France | France |
| Helix Project V, LLC | 100.00 % | | United States | United States |
| HETTY | 100.00 % | | France | France |
| Hill Solar I, LLC | 100.00 % | | United States | United States |
| Hill Solar I, LLC | 100.00 % | | United States | United States |
| Hill Solar II, LLC | 100.00 % | | United States | United States |
| HTS Holdings LLC | 50.00 % | E | United States | United States |
| Hydro 974 | 100.00 % | | France | France |
| Hydro Tinee | 50.00 % | E | France | France |
| Hydromons | 100.00 % | | France | France |
| Ichthys LNG PTY Limited | 26.00 % | E | Australia | Australia |
| Ise Total Nanao Power Plant G.K. | 50.00 % | E | Japan | Japan |
| Jingdan New Energy investment (Shanghai) Co. Ltd | 50.00 % | E | China | China |
| Jmcp | 50.05 % | | France | France |
| Keith Solar I, LLC | 100.00 % | | United States | United States |
| Komundo Offshore Wind Power Co., Ltd | 42.50 % | E | South Korea | South Korea |
| LA Basin Solar I, LLC | 100.00 % | | United States | United States |
| La Compagnie Electrique de Bretagne | 50.00 % | E | France | France |
| La Metairie Neuve | 25.00 % | E | France | France |
| La Seauve | 40.00 % | E | France | France |
| Lanuza Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Lauderdale Solar, LLC | 100.00 % | | United States | United States |
| Laurens Solar I, LLC | 100.00 % | | United States | United States |
| Lemoore Stratford Land Holdings IV, LLC | 100.00 % | | United States | United States |
| Les ailes de Taillard | 50.00 % | E | France | France |
| Les vents de la Moivre 1 | 100.00 % | | France | France |
| Les Vents de la Moivre 2 | 100.00 % | | France | France |
| Les Vents de la Moivre 3 | 100.00 % | | France | France |
| Les Vents de la Moivre 4 | 100.00 % | | France | France |
| Les Vents de la Moivre 5 | 100.00 % | | France | France |
| Les Vents De Nivillac | 100.00 % | | France | France |
| Leuret | 50.00 % | E | France | France |
| Lorca | 50.00 % | E | France | France |
| Luce Solar SPA | 100.00 % | | Chile | Chile |
| Luminora Solar 5 | 65.00 % | E | Spain | Spain |
| Luminora Solar cuatro, S.L. | 65.00 % | E | Spain | Spain |
| Luminora Solar Dos, S.L. | 65.00 % | E | Spain | Spain |
| Luminora Solar Tres, S.L. | 65.00 % | E | Spain | Spain |
| Maenggoldo Offshore Wind Power Co., Ltd | 42.50 % | E | South Korea | South Korea |
| Margeriaz Energie | 100.00 % | | France | France |
| Martianez Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Marysville Unified School District Solar, LLC | 100.00 % | | United States | United States |
| Mauricio Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Maxeon Solar Technologies, Pte. Ltd. | 26.66 % | E | Singapore | Singapore |
| Methanergy | 100.00 % | | France | France |
| Missiles & Space Batteries Limited | 50.00 % | E | United Kingdom | United Kingdom |
| Miyagi Osato Solar Park G.K. | 45.00 % | E | Japan | Japan |
| Miyako Kuzakai Solarpark G.K. | 50.00 % | E | Japan | Japan |
| Moz LNG1 Co-Financing Company | 26.50 % | | Mozambique | Mozambique |
| Moz LNG1 Financing Company Ltd | 26.50 % | | United Arab Emirates | United Arab Emirates |

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|---|---|---|---|---|
| Moz LNG1 Holding Company Ltd | 26.50 % | | United Arab Emirates | United Arab Emirates |
| Mozambique LNG Marine Terminal Company S.A. | 26.50 % | | Mozambique | Mozambique |
| Mozambique MOF Company S.A. | 26.50 % | | Mozambique | Mozambique |
| Mulilo Prieska PV (RF) Proprietary Limited | 27.00 % | E | South Africa | South Africa |
| Mustang Creek Solar, LLC | 100.00 % | | United States | United States |
| Myrtle Solar, LLC | 100.00 % | | United States | United States |
| National Gas Shipping Company Limited | 5.00 % | E | United Arab Emirates | United Arab Emirates |
| Nigeria LNG Limited | 15.00 % | E | Nigeria | Nigeria |
| Nouvelle Centrale Eolienne de Lastours | 50.00 % | E | France | France |
| Nuza Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Nyk Armateur S.A.S. | 50.00 % | E | France | France |
| Offshore Wind Power Ltd | 38.25 % | E | United Kingdom | United Kingdom |
| Oman LNG, LLC | 5.54 % | E | Oman | Oman |
| Papua LNG Development Pte Ltd | 100.00 % | | Singapore | Papua New Guinea |
| Parc Eolien de Cassini | 50.00 % | E | France | France |
| Parc Eolien Des Monts Jumeaux | 50.00 % | E | France | France |
| Parc Eolien Du Coupru | 50.00 % | E | France | France |
| Parc Eolien du Vilpion | 50.00 % | E | France | France |
| Parque Fotovoltaico Alicahue Solar SPA | 100.00 % | | Chile | Chile |
| Parque Fotovoltaico Santa Adriana Solar SPA | 100.00 % | | Chile | Chile |
| Piedra Solar, LLC | 100.00 % | | United States | United States |
| Pilastra Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Planta solar OPDE Andalucía 3, S.L.U. | 100.00 % | | Spain | Spain |
| Portalon Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Pos Production Ii | 60.00 % | | France | France |
| Pos Production Iii | 70.00 % | | France | France |
| Pos Production Iv | 70.00 % | | France | France |
| Pos Production V | 70.00 % | | France | France |
| Poste HTB du Mont de L'Arbre | 100.00 % | | France | France |
| Postigo Solar, S.L.U. | 100.00 % | | Spain | Spain |
| PT TATS Indonesia | 100.00 % | | Indonesia | Indonesia |
| Qatar Liquefied Gas Company Limited | 10.00 % | E | Qatar | Qatar |
| Qatar Liquefied Gas Company Limited (II) | 16.70 % | E | Qatar | Qatar |
| Quadrica | 51.00 % | E | France | France |
| Quilla Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Rabiza Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Randolph Solar I, LLC | 100.00 % | | United States | United States |
| Recova Solar, S.L.U. | 100.00 % | | Spain | Spain |
| Regata Solar, S.L.U. | 100.00 % | | Spain | Spain |
| RLA Solar SPA | 100.00 % | | Chile | Chile |
| Rolling Plains Solar, LLC | 100.00 % | | United States | United States |
| Saft (Zhuhai FTZ) Batteries Company Limited | 100.00 % | | China | China |
| Saft (Zhuhai) Energy Storage Co | 100.00 % | | China | China |
| Saft AB | 100.00 % | | Sweden | Sweden |
| Saft America Inc. | 100.00 % | | United States | United States |
| Saft AS | 100.00 % | | Norway | Norway |
| Saft Australia PTY Limited | 100.00 % | | Australia | Australia |
| Saft Batterias SL | 100.00 % | | Spain | Spain |
| Saft Batterie Italia S.R.L. | 100.00 % | | Italy | Italy |
| Saft Batterien GmbH | 100.00 % | | Germany | Germany |
| Saft Batteries Pte Limited | 100.00 % | | Singapore | Singapore |
| Saft Batteries PTY Limited | 100.00 % | | Australia | Australia |
| Saft Batterijen B.V. | 100.00 % | | Netherlands | Netherlands |
| Saft Do Brasil Ltda | 100.00 % | | Brazil | Brazil |
| Saft EV S.A.S. | 100.00 % | | France | France |
| Saft Ferak AS | 100.00 % | | Czech Republic | Czech Republic |
| Saft Groupe S.A.S. | 100.00 % | | France | France |
| Saft Hong Kong Limited | 100.00 % | | Hong Kong | Hong Kong |
| Saft India Private Limited | 100.00 % | | India | India |
| Saft Japan KK | 100.00 % | | Japan | Japan |
| Saft Limited | 100.00 % | | United Kingdom | United Kingdom |
| Saft LLC | 100.00 % | | Russia | Russia |
| Saft Nife ME Limited | 100.00 % | | Cyprus | Cyprus |
| Saft S.A.S. | 100.00 % | | France | France |
| Sanders Creek Solar, LLC | 100.00 % | | United States | United States |

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|---|---|---|---|---|
| Seagreen HoldCo 1 Limited | 51.00 % | E | United Kingdom | United Kingdom |
| Shams Power Company PJSC | 20.00 % | E | United Arab Emirates | United Arab Emirates |
| Societe Champenoise d'Energie | 16.00 % | E | France | France |
| Societe Economie Mixte Production Energetique Renouvelable | 35.92 % | E | France | France |
| Sol Holding, LLC | 50.00 % | E | United States | United States |
| Solar Carport NJ, LLC | 100.00 % | | United States | United States |
| Solar Energies | 65.00 % | E | France | France |
| Solar Star Academia 1, LLC | 100.00 % | | United States | United States |
| Solar Star Always Low Prices Hi, LLC | 100.00 % | | United States | United States |
| Solar Star Arizona HMR-1, LLC | 100.00 % | | United States | United States |
| Solar Star Baltimore Carney, LLC | 100.00 % | | United States | United States |
| Solar Star Baltimore Roofs, LLC | 100.00 % | | United States | United States |
| Solar Star Bay City 2, LLC | 100.00 % | | United States | United States |
| Solar Star Big Apple BTM, LLC | 100.00 % | | United States | United States |
| Solar Star Big Apple CDG, LLC | 100.00 % | | United States | United States |
| Solar Star Big Apple CDGB,LLC | 100.00 % | | United States | United States |
| Solar Star Blakeslee 2, LLC | 100.00 % | | United States | United States |
| Solar Star Buchanan 1, LLC | 100.00 % | | United States | United States |
| Solar Star Buchanan 2, LLC | 100.00 % | | United States | United States |
| Solar Star California LXXV, LLC | 100.00 % | | United States | United States |
| Solar Star California LXXVI, LLC | 100.00 % | | United States | United States |
| Solar Star California LXXVIII, LLC | 100.00 % | | United States | United States |
| Solar Star California XXXV, LLC | 100.00 % | | United States | United States |
| Solar Star California XXXVI, LLC | 100.00 % | | United States | United States |
| Solar Star California XXXVIII, LLC | 100.00 % | | United States | United States |
| Solar Star Cambridge 1, LLC | 100.00 % | | United States | United States |
| Solar Star Carbondale 1, LLC | 100.00 % | | United States | United States |
| Solar Star Carlsbad 1, LLC | 100.00 % | | United States | United States |
| Solar Star Charles City 1, LLC | 100.00 % | | United States | United States |
| Solar Star Charles City 2, LLC | 100.00 % | | United States | United States |
| Solar Star Charlotte 1, LLC | 100.00 % | | United States | United States |
| Solar Star Clovis Curry North, LLC | 100.00 % | | United States | United States |
| Solar Star Clovis Curry South, LLC | 100.00 % | | United States | United States |
| Solar Star Co Co 2500, LLC | 100.00 % | | United States | United States |
| Solar Star Colorado II, LLC | 100.00 % | | United States | United States |
| Solar Star CRC Kern Front, LLC | 100.00 % | | United States | United States |
| Solar Star CRC Mt. Poso, LLC | 100.00 % | | United States | United States |
| Solar Star CRC North Shafter, LLC | 100.00 % | | United States | United States |
| Solar Star CRC Pier A West, LLC | 100.00 % | | United States | United States |
| Solar Star CRC Yowlumne 1 North, LLC | 100.00 % | | United States | United States |
| Solar Star CRC Yowlumne 2 South, LLC | 100.00 % | | United States | United States |
| Solar Star Deer Island, LLC | 100.00 % | | United States | United States |
| Solar Star Dornsife 1, LLC | 100.00 % | | United States | United States |
| Solar Star Fort Atkinson South, LLC | 100.00 % | | United States | United States |
| Solar Star George Gift, LLC | 100.00 % | | United States | United States |
| Solar Star Gloucester 1, LLC | 100.00 % | | United States | United States |
| Solar Star Gloucester 2, LLC | 100.00 % | | United States | United States |
| Solar Star Goochland 1, LLC | 100.00 % | | United States | United States |
| Solar Star Goodwin Storage, LLC | 100.00 % | | United States | United States |
| Solar Star Halifax 1, LLC | 100.00 % | | United States | United States |
| Solar Star Harbor, LLC | 100.00 % | | United States | United States |
| Solar Star Hawley 1, LLC | 100.00 % | | United States | United States |
| Solar Star HD Maryland, LLC | 100.00 % | | United States | United States |
| Solar Star HD New Jersey, LLC | 100.00 % | | United States | United States |
| Solar Star HD New York, LLC | 100.00 % | | United States | United States |
| Solar Star Healthy 1, LLC | 100.00 % | | United States | United States |
| Solar Star Healthy Lake, LLC | 100.00 % | | United States | United States |
| Solar Star Herald Square 1, LLC | 100.00 % | | United States | United States |
| Solar Star Hernwood, LLC | 100.00 % | | United States | United States |
| Solar Star Irondale, LLC | 100.00 % | | United States | United States |
| Solar Star Jal, LLC | 100.00 % | | United States | United States |
| Solar Star Kennedale Storage, LLC | 100.00 % | | United States | United States |
| Solar Star Khsd, LLC | 100.00 % | | United States | United States |
| Solar Star LA County High Desert, LLC | 100.00 % | | United States | United States |
| Solar Star Lake Mills 1, LLC | 100.00 % | | United States | United States |

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|---|---|---|---|---|
| Solar Star LCR Culver City, LLC | 100.00 % | | United States | United States |
| Solar Star LCR Irvine, LLC | 100.00 % | | United States | United States |
| Solar Star LCR Split 2, LLC | 100.00 % | | United States | United States |
| Solar Star Lincoln School, LLC | 100.00 % | | United States | United States |
| Solar Star Lompoc Diatomite 1, LLC | 100.00 % | | United States | United States |
| Solar Star Los Lunas 2 LLC | 100.00 % | | United States | United States |
| Solar Star Los Lunas, LLC | 100.00 % | | United States | United States |
| Solar Star MA - Tewksbury, LLC | 100.00 % | | United States | United States |
| Solar Star Massachusetts II, LLC | 100.00 % | | United States | United States |
| Solar Star Massachusetts III, LLC | 100.00 % | | United States | United States |
| Solar Star Maxx 1, LLC | 100.00 % | | United States | United States |
| Solar Star Mayfield 1, LLC | 100.00 % | | United States | United States |
| Solar Star Maynard 1, LLC | 100.00 % | | United States | United States |
| Solar Star Mifflinburg 1, LLC | 100.00 % | | United States | United States |
| Solar Star Millville Rohrsburg, LLC | 100.00 % | | United States | United States |
| Solar Star Millville, LLC | 100.00 % | | United States | United States |
| Solar Star Mount Crawford 1, LLC | 100.00 % | | United States | United States |
| Solar Star North Herty Storage, LLC | 100.00 % | | United States | United States |
| Solar Star Orangeville 2, LLC | 100.00 % | | United States | United States |
| Solar Star Orangeville Eagle, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC Kern Front, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC Mt. Poso, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC North Shafter, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC Pier A West, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC Yowlumne 1 North, LLC | 100.00 % | | United States | United States |
| Solar Star Parent CRC Yowlumne 2 South, LLC | 100.00 % | | United States | United States |
| Solar Star Parkton, LLC | 100.00 % | | United States | United States |
| Solar Star Pennsauken, LLC | 100.00 % | | United States | United States |
| Solar Star Petersburg 1, LLC | 100.00 % | | United States | United States |
| Solar Star Philipsburg 1, LLC | 100.00 % | | United States | United States |
| Solar Star Pleasant Mount 1, LLC | 100.00 % | | United States | United States |
| Solar Star Pleasant Mount 2, LLC | 100.00 % | | United States | United States |
| Solar Star Prime 2, LLC | 100.00 % | | United States | United States |
| Solar Star PTC 1, LLC | 100.00 % | | United States | United States |
| Solar Star PTC 2, LLC | 100.00 % | | United States | United States |
| Solar Star Serving Science 2, LLC | 100.00 % | | United States | United States |
| Solar Star Serving Science, LLC | 100.00 % | | United States | United States |
| Solar Star South Deering, LLC | 100.00 % | | United States | United States |
| Solar Star Storage Texas, LLC | 100.00 % | | United States | United States |
| Solar Star Timberville 1, LLC | 100.00 % | | United States | United States |
| Solar Star Timberville 2, LLC | 100.00 % | | United States | United States |
| Solar Star Track Southern Ave 1, LLC | 100.00 % | | United States | United States |
| Solar Star Tranquility, LLC | 100.00 % | | United States | United States |
| Solar Star Unkety Brook, LLC | 100.00 % | | United States | United States |
| Solar Star Urbana Landfill South, LLC | 100.00 % | | United States | United States |
| Solar Star Virginia Holdco, LLC | 100.00 % | | United States | United States |
| Solar Star Ware 1, LLC | 100.00 % | | United States | United States |
| Solar Star Western Hills Storage, LLC | 100.00 % | | United States | United States |
| Solar Star Wholesome Portland, LLC | 100.00 % | | United States | United States |
| Solarstar Ma I, LLC | 100.00 % | | United States | United States |
| Solarstar Prime I, LLC | 100.00 % | | United States | United States |
| SolarStorage Fund A, LLC | 100.00 % | | United States | United States |
| SolarStorage Fund B, LLC | 100.00 % | | United States | United States |
| SolarStorage Fund C, LLC | 100.00 % | | United States | United States |
| SolarStorage Fund D, LLC | 100.00 % | | United States | United States |
| Sombrero Solar, LLC | 100.00 % | | United States | United States |
| South Hook LNG Terminal Company Limited | 8.35 % | E | United Kingdom | United Kingdom |
| Spinnaker Solar, S.L.U. | 100.00 % | | Spain | Spain |
| SPWR SS 1, LLC | 100.00 % | | United States | United States |
| Strongstown Solar, LLC | 100.00 % | | United States | United States |
| SunPower Bobcat Solar, LLC | 100.00 % | | United States | United States |
| SunPower Commercial FTB Construction, LLC | 100.00 % | | United States | United States |
| SunPower Commercial Holding Company FTB SLB Parent, LLC | 100.00 % | | United States | United States |
| SunPower Commercial Holding Company FTB SLB, LLC | 100.00 % | | United States | United States |
| SunPower Helix I, LLC | 100.00 % | | United States | United States |

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|---|---|---|---|---|
| SunPower NY CDG 1, LLC | 100.00 % | | United States | United States |
| SunPower Revolver HoldCo I Parent, LLC | 100.00 % | | United States | United States |
| SunPower Revolver HoldCo I, LLC | 100.00 % | | United States | United States |
| Sunzil | 50.00 % | E | France | France |
| Swingletree Operations, LLC | 100.00 % | | United States | United States |
| Tadiran Batteries GmbH | 100.00 % | | Germany | Germany |
| Tadiran Batteries Limited | 100.00 % | | Israel | Israel |
| Tianneng Saft Energy Joint Stock Company | 40.00 % | E | China | China |
| TNE Holdco 1 Ltd | 100.00 % | | United Kingdom | United Kingdom |
| Total Direct Energie Belgium | 100.00 % | | Belgium | Belgium |
| Total E&P Indonesie | 100.00 % | | France | Indonesia |
| Total Energies Biogaz France | 100.00 % | | France | France |
| Total Eren (b) | 29.60 % | E | France | France |
| Total Eren Holding | 33.86 % | E | France | France |
| Total Shenergy LNG (Shanghai) Co., Ltd. | 49.00 % | E | China | China |
| Total Solar Singapore Pte Ltd | 100.00 % | | Singapore | Singapore |
| Total Strong, LLC | 50.00 % | E | United States | United States |
| Total Tractebel Emirates O & M Company | 50.00 % | E | France | United Arab Emirates |
| Total Tractebel Emirates Power Company | 50.00 % | E | France | United Arab Emirates |
| TotalEnergies - Centrale Electrique Bayet | 100.00 % | | France | France |
| TotalEnergies - Centrale Electrique Marchienne-au-Pont | 100.00 % | | Belgium | Belgium |
| TotalEnergies - Centrale Electrique Pont-sur-Sambre | 100.00 % | | France | France |
| TotalEnergies - Centrale Electrique Saint-Avold | 100.00 % | | France | France |
| TotalEnergies - Centrale Electrique Toul | 100.00 % | | France | France |
| TotalEnergies Australia Unit Trust (c) | 0.00 % | | Australia | Australia |
| TotalEnergies Biogas Holdings USA, LLC | 100.00 % | | United States | United States |
| TotalEnergies Carbon Solutions | 100.00 % | | France | France |
| TotalEnergies Carolina Long Bay, LLC | 100.00 % | | United States | United States |
| TotalEnergies CCS Australia Pty Ltd | 100.00 % | | Australia | Australia |
| TotalEnergies Clientes | 100.00 % | | Spain | Spain |
| TotalEnergies CW I Solar, LLC | 100.00 % | | United States | United States |
| TotalEnergies DF Solar, LLC | 100.00 % | | United States | United States |
| Totalenergies Distributed Generation Assets Usa, LLC | 100.00 % | | United States | United States |
| TotalEnergies Distributed Generation Philippines Inc. | 100.00 % | | United States | United States |
| Totalenergies Distributed Generation Usa, LLC | 100.00 % | | United States | United States |
| TotalEnergies E&P Yamal | 100.00 % | | France | France |
| TotalEnergies Electricidad y Gas España | 100.00 % | | Spain | Spain |
| TotalEnergies Electricité et Gaz France | 100.00 % | | France | France |
| TotalEnergies EP Angola Développement Gaz | 100.00 % | | France | Angola |
| TotalEnergies EP Australia | 100.00 % | | France | Australia |
| TotalEnergies EP Australia II | 100.00 % | | France | Australia |
| TotalEnergies EP Australia III | 100.00 % | | France | Australia |
| TotalEnergies EP Barnett USA | 100.00 % | | United States | United States |
| TotalEnergies EP Holding Mauritius Ltd | 100.00 % | | Mauritius Island | Mauritius Island |
| TotalEnergies EP Holdings Australia Pty Ltd | 100.00 % | | Australia | Australia |
| TotalEnergies EP Ichthys B.V. | 100.00 % | | Netherlands | Australia |
| TotalEnergies EP Ichthys Holdings | 100.00 % | | France | France |
| TotalEnergies EP Ichthys Pty Ltd | 100.00 % | | Australia | Australia |
| TotalEnergies EP Indonesia Mentawai B.V. | 100.00 % | | Netherlands | Indonesia |
| TotalEnergies EP Mozambique Area1, Ltda | 100.00 % | | Mozambique | Mozambique |
| TotalEnergies EP Oman Block 12 B.V. | 100.00 % | | Netherlands | Oman |
| TotalEnergies EP Oman Development B.V. | 100.00 % | | Netherlands | Oman |
| TotalEnergies EP PNG Ltd | 100.00 % | | Papua New Guinea | Papua New Guinea |
| TotalEnergies EP PNG2 B.V. | 100.00 % | | Netherlands | Papua New Guinea |
| TotalEnergies EP Salmanov | 100.00 % | | France | France |
| TotalEnergies EP Singapore Pte. Ltd. | 100.00 % | | Singapore | Singapore |
| TotalEnergies EP Tengah | 100.00 % | | France | Indonesia |
| TotalEnergies EP Transshipment S.A.S. | 100.00 % | | France | France |
| TotalEnergies ESS Flandres | 100.00 % | | France | France |
| TotalEnergies Exploration Australia Pty Ltd | 100.00 % | | Australia | Australia |
| TotalEnergies Gas & Power Asia Private Limited | 100.00 % | | Singapore | Singapore |
| TotalEnergies Gas & Power Brazil | 100.00 % | | France | France |
| TotalEnergies Gas & Power Chartering UK Ltd | 100.00 % | | United Kingdom | United Kingdom |

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|---|---|---|---|---|
| TotalEnergies Gas & Power Holdings UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Gas & Power Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Gas & Power Ltd, London, Meyrin - Geneva branch | 100.00 % | | United Kingdom | Switzerland |
| TotalEnergies Gas & Power North America, Inc. | 100.00 % | | United States | United States |
| TotalEnergies Gas & Power Services UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Gas Holdings Andes | 100.00 % | | France | France |
| TotalEnergies Gas Pipeline USA, Inc. | 100.00 % | | United States | United States |
| TotalEnergies Gas y Electricidad Argentina S.A. | 100.00 % | | Argentina | Argentina |
| TotalEnergies Gaz & Electricité Holdings | 100.00 % | | France | France |
| TotalEnergies GLNG Australia | 100.00 % | | France | Australia |
| TotalEnergies GLNG Holdings Australia S.A.S. | 100.00 % | | France | Australia |
| TotalEnergies H Solar, LLC | 100.00 % | | United States | United States |
| TotalEnergies LNG Angola | 100.00 % | | France | France |
| TotalEnergies M Solar, LLC | 100.00 % | | United States | United States |
| TotalEnergies Mercado España | 100.00 % | | Spain | Spain |
| TotalEnergies New Ventures USA, Inc. | 100.00 % | | United States | United States |
| TotalEnergies Offshore Wind Korea | 100.00 % | | France | France |
| TotalEnergies OFW US 1, LLC | 100.00 % | | United States | United States |
| TotalEnergies OFW US 4, LLC | 100.00 % | | United States | United States |
| TotalEnergies Power Generation France | 100.00 % | | France | France |
| TotalEnergies Power & Gas Belgium | 100.00 % | | Belgium | Belgium |
| TotalEnergies Renewables | 100.00 % | | France | France |
| TotalEnergies Renewables Asia | 100.00 % | | Singapore | Singapore |
| TotalEnergies Renewables DG Asia Assets PTE Ltd | 100.00 % | | Singapore | Singapore |
| TotalEnergies Renewables DG Development Asia Pte. Ltd. | 100.00 % | | Singapore | Singapore |
| TotalEnergies Renewables DG Holdings Asia PTE Ltd | 100.00 % | | Singapore | Singapore |
| TotalEnergies Renewables DG MEA - Assets 1 FZE | 100.00 % | | United Arab Emirates | United Arab Emirates |
| TotalEnergies Renewables DG MEA FZE | 100.00 % | | United Arab Emirates | United Arab Emirates |
| TotalEnergies Renewables ESS Carling | 100.00 % | | France | France |
| TotalEnergies Renewables ESS Mayotte | 100.00 % | | France | France |
| TotalEnergies Renewables Iberica, S.L.U | 100.00 % | | Spain | Spain |
| TotalEnergies Renewables Indian Ocean Ltd. | 100.00 % | | Mauritius Island | Mauritius Island |
| TotalEnergies Renewables International | 100.00 % | | France | France |
| TotalEnergies Renewables Latin America | 100.00 % | | Chile | Chile |
| TotalEnergies Renewables Projects Philippines Corporation | 100.00 % | | Philippines | Philippines |
| TotalEnergies Renewables Projects Vietnam | 100.00 % | | Singapore | Singapore |
| Totalenergies Renewables R4 Holdco Ltd | 100.00 % | | United Kingdom | United Kingdom |
| Totalenergies Renewables Seagreen Holdco Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Renewables Thailand | 100.00 % | | Thailand | Thailand |
| TotalEnergies Renewables UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Renewables USA, LLC | 100.00 % | | United States | United States |
| TotalEnergies Renouvelables Danemark ApS | 100.00 % | | Denmark | Denmark |
| TotalEnergies Renouvelables France | 100.00 % | | France | France |
| TotalEnergies Renouvelables Nogara | 50.00 % | E | France | France |
| TotalEnergies Renouvelables Pacific | 100.00 % | | France | France |
| TotalEnergies Solar DG Nederland B.V. | 100.00 % | | Netherlands | Netherlands |
| TotalEnergies Solar France | 100.00 % | | France | France |
| TotalEnergies Solar Intl | 100.00 % | | France | France |
| TotalEnergies Solar Wind Indian Ocean Ltd. | 100.00 % | | Mauritius Island | Mauritius Island |
| TotalEnergies Sviluppo Italia S.R.L. | 100.00 % | | Italy | Italy |
| TotalEnergies USA International LLC | 100.00 % | | United States | United States |
| TotalEnergies Ventures Emerging Markets | 100.00 % | | France | France |
| TotalEnergies Ventures Europe | 100.00 % | | France | France |
| TotalEnergies Ventures International | 100.00 % | | France | France |
| TotalEnergies Wire 3, LLC | 100.00 % | | United States | United States |
| TotalEnergies Yemen LNG Company Ltd | 100.00 % | | Bermuda | Bermuda |
| TQN Hydro | 100.00 % | | France | France |
| TQN Solar | 100.00 % | | France | France |
| TQN Solar Nogara | 50.00 % | E | France | France |
| TQN Wind | 100.00 % | | France | France |
| Transportadora de Gas del Mercosur S.A. | 32.68 % | E | Argentina | Argentina |
| Trofeo Solar, S.L.U. | 100.00 % | | Spain | Spain |

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|---|---|---|---|---|---|
| | TSGF SpA | 50.00 % | E | Chile | Chile |
| | Valencia Solar 1, LLC | 100.00 % | | United States | United States |
| | Valencia Solar 2, LLC | 100.00 % | | United States | United States |
| | Valencia Solar 3, LLC | 100.00 % | | United States | United States |
| | Valencia Solar 4, LLC | 100.00 % | | United States | United States |
| | Valorene | 66.00 % | | France | France |
| | Vents d'Oc Centrale d'Energie Renouvelable 16 | 100.00 % | | France | France |
| | Vents D'Oc Centrale D'Energie Renouvelable 17 | 50.00 % | E | France | France |
| | Vents D'Oc Centrale D'Energie Renouvelable 18 | 100.00 % | | France | France |
| | Vertigo | 25.00 % | E | France | France |
| | Wichita Data, LLC | 100.00 % | | United States | United States |
| | Wichita Solar I, LLC | 100.00 % | | United States | United States |
| | Winche Solar, S.L.U. | 100.00 % | | Spain | Spain |
| | Wind 1026 GmbH | 100.00 % | | Germany | France |
| | Wind 1029 GmbH | 100.00 % | | Germany | Germany |
| | Winergy | 100.00 % | | France | France |
| | Woodbury Solar, LLC | 100.00 % | | United States | United States |
| | WP France 21 | 100.00 % | | France | France |
| | Yamal LNG | 20.02 % | E | Russia | Russia |
| | Yemen LNG Company Limited | 39.62 % | E | Bermuda | Yemen |
| | Yunlin Holding Gmbh | 23.00 % | E | Germany | Germany |

| Business segment | Statutory corporate name | % Company interest | Method | Country of incorporation | Country of operations |
|---|---|---|---|---|---|
| **Refining & Chemicals** | | | | | |
| | Appryl S.N.C | 50.00 % | | France | France |
| | Atlantic Trading and Marketing Financial Inc. | 100.00 % | | United States | United States |
| | Atlantic Trading and Marketing Inc. | 100.00 % | | United States | United States |
| | Balzatex S.A.S. | 100.00 % | | France | France |
| | Barry Controls Aerospace S.N.C. | 100.00 % | | France | France |
| | BASF Total Petrochemicals LLC | 40.00 % | | United States | United States |
| | Bay Junction Inc. | 100.00 % | | United States | United States |
| | Bayport Polymers LLC | 50.00 % | E | United States | United States |
| | Borrachas Portalegre Ltda | 100.00 % | | Portugal | Portugal |
| | BOU Verwaltungs GmbH | 100.00 % | | Germany | Germany |
| | Buckeye Products Pileline LP | 14.66 % | E | United States | United States |
| | Catelsa-Caceres S.A.U. | 100.00 % | | Spain | Spain |
| | Cie Tunisienne du Caoutchouc S.A.R.L. | 100.00 % | | Tunisia | Tunisia |
| | Composite Industrie Maroc S.A.R.L. | 100.00 % | | Morocco | Morocco |
| | Composite Industrie S.A. | 100.00 % | | France | France |
| | Cosden, LLC | 100.00 % | | United States | United States |
| | COS-MAR Company | 50.00 % | | United States | United States |
| | Cray Valley (Guangzhou) Chemical Company, Limited | 100.00 % | | China | China |
| | Cray Valley Czech | 100.00 % | | Czech Republic | Czech Republic |
| | Cray Valley HSC Asia Limited | 100.00 % | | China | Hong Kong |
| | Cray Valley Italia S.R.L. | 100.00 % | | Italy | Italy |
| | Cray Valley S.A. | 100.00 % | | France | France |
| | CSSA - Chartering and Shipping Services S.A. | 100.00 % | | Switzerland | Switzerland |
| | Espa S.A.R.L. | 100.00 % | | France | France |
| | Ethylene Est | 99.98 % | | France | France |
| | Feluy Immobati | 100.00 % | | Belgium | Belgium |
| | Fina Pipeline Co | 100.00 % | | United States | United States |
| | FINA Technology, Inc. | 100.00 % | | United States | United States |
| | Gasket (Suzhou) Valve Components Company, Limited | 100.00 % | | China | China |
| | Gasket International S.R.L. | 100.00 % | | Italy | Italy |
| | Grande Paroisse S.A. | 100.00 % | | France | France |
| | Gulf Coast Pipeline LP | 14.66 % | E | United States | United States |
| | Hanwha TotalEnergies Petrochemical Co. Limited | 50.00 % | E | South Korea | South Korea |
| | HBA Hutchinson Brasil Automotive Ltda | 100.00 % | | Brazil | Brazil |
| | Hutchinson (UK) Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Hutchinson (Wuhan) Automotive Rubber Products Company Limited | 100.00 % | | China | China |
| | Hutchinson Aeronautique & Industrie Limited | 100.00 % | | Canada | Canada |
| | Hutchinson Aerospace & Industry Inc. | 100.00 % | | United States | United States |

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|---|---|---|---|---|
| Hutchinson Aerospace GmbH | 100.00 % | | Germany | Germany |
| Hutchinson Antivibration Systems Inc. | 100.00 % | | United States | United States |
| Hutchinson Automotive Systems Company, Limited | 100.00 % | | China | China |
| Hutchinson Autopartes Mexico S.A. de C.V. | 100.00 % | | Mexico | Mexico |
| Hutchinson Borrachas de Portugal Ltda | 100.00 % | | Portugal | Portugal |
| Hutchinson Corporation | 100.00 % | | United States | United States |
| Hutchinson d.o.o Ruma | 100.00 % | | Serbia | Serbia |
| Hutchinson Do Brasil S.A. | 100.00 % | | Brazil | Brazil |
| Hutchinson Fluid Management Systems Inc. | 100.00 % | | United States | United States |
| Hutchinson GmbH | 100.00 % | | Germany | Germany |
| Hutchinson Holding GmbH | 100.00 % | | Germany | Germany |
| Hutchinson Holdings UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| Hutchinson Iberia S.A. | 100.00 % | | Spain | Spain |
| Hutchinson Industrial Rubber Products (Suzhou) Company, Limited | 100.00 % | | China | China |
| Hutchinson Industrias Del Caucho SAU | 100.00 % | | Spain | Spain |
| Hutchinson Industries Inc. | 100.00 % | | United States | United States |
| Hutchinson Japan Company Limited | 100.00 % | | Japan | Japan |
| Hutchinson Korea Limited | 100.00 % | | South Korea | South Korea |
| Hutchinson Malta Ltd | 100.00 % | | Malta | Malta |
| Hutchinson Maroc S.A.R.L. AU | 100.00 % | | Morocco | Morocco |
| Hutchinson Poland SP ZO.O. | 100.00 % | | Poland | Poland |
| Hutchinson Polymers S.N.C. | 100.00 % | | France | France |
| Hutchinson Porto | 100.00 % | | Portugal | Portugal |
| Hutchinson Precision Sealing Systems Inc. | 100.00 % | | United States | United States |
| Hutchinson Research & Innovation Singapore PTE. Limited | 100.00 % | | Singapore | Singapore |
| Hutchinson Rubber Products Private Limited Inde | 100.00 % | | India | India |
| Hutchinson S.A. | 100.00 % | | France | France |
| Hutchinson S.N.C. | 100.00 % | | France | France |
| Hutchinson S.R.L. (Italie) | 100.00 % | | Italy | Italy |
| Hutchinson S.R.L. (Roumanie) | 100.00 % | | Romania | Romania |
| Hutchinson Sales Corporation | 100.00 % | | United States | United States |
| Hutchinson Seal De Mexico S.A. de CV. | 100.00 % | | Mexico | Mexico |
| Hutchinson Sealing Systems Inc. | 100.00 % | | United States | United States |
| Hutchinson SRO | 100.00 % | | Czech Republic | Czech Republic |
| Hutchinson Stop - Choc GmbH & CO. KG | 100.00 % | | Germany | Germany |
| Hutchinson Suisse S.A. | 100.00 % | | Switzerland | Switzerland |
| Hutchinson Technologies (Maanshan) Co., Ltd. | 100.00 % | | China | China |
| Hutchinson Technologies (Shenyang) Co., Ltd. | 100.00 % | | China | China |
| Hutchinson Transferencia de Fluidos S.A. de C.V. | 100.00 % | | Mexico | Mexico |
| Hutchinson Tunisie S.A.R.L. | 100.00 % | | Tunisia | Tunisia |
| Hutchinson Vietnam Company Limited | 100.00 % | | Vietnam | Vietnam |
| Industrias Tecnicas De La Espuma SL | 100.00 % | | Spain | Spain |
| Industrielle Desmarquoy S.N.C. | 100.00 % | | France | France |
| Jehier S.A.S. | 99.89 % | | France | France |
| Joint Precision Rubber | 100.00 % | | France | France |
| KTN Kunststofftechnik Nobitz GmbH | 100.00 % | | Germany | Germany |
| Laffan Refinery Company Limited | 10.00 % | E | Qatar | Qatar |
| Laffan Refinery Company Limited 2 | 10.00 % | E | Qatar | Qatar |
| LaPorte Pipeline Company LP | 19.96 % | E | United States | United States |
| LaPorte Pipeline GP LLC | 19.96 % | E | United States | United States |
| Le Joint Francais S.N.C. | 100.00 % | | France | France |
| Legacy Site Services Funding Inc. | 100.00 % | | United States | United States |
| Legacy Site Services LLC | 100.00 % | | United States | United States |
| Les Stratifies S.A.S. | 100.00 % | | France | France |
| Lone Wolf Land Company | 100.00 % | | United States | United States |
| Machen Land Limited | 100.00 % | | United Kingdom | United Kingdom |
| Mide Technology Corporation | 100.00 % | | United States | United States |
| Naphtachimie | 50.00 % | | France | France |
| Olutex Oberlausitzer Luftfahrttextilien GmbH | 100.00 % | | Germany | Germany |
| Pamargan Products Limited | 100.00 % | | United Kingdom | United Kingdom |
| Paulstra S.N.C. | 100.00 % | | France | France |
| PFW Aerospace GmbH | 100.00 % | | Germany | Germany |
| PFW Havacilik Sanayi ve Dis Ticaret Limited Sirtketi | 100.00 % | | Turkey | Turkey |

| | | | | |
|---|---|---|---|---|
| PFW Uk Machining Ltd. | 100.00 % | | United Kingdom | United Kingdom |
| Polyblend GmbH | 100.00 % | | Germany | Germany |
| Qatar Petrochemical Company Q.S.C. (QAPCO) | 20.00 % | E | Qatar | Qatar |
| Qatofin Company Limited | 49.08 % | E | Qatar | Qatar |
| Resilium | 100.00 % | | Belgium | Belgium |
| Retia | 100.00 % | | France | France |
| Retia USA LLC | 100.00 % | | United States | United States |
| San Jacinto Rail Limited | 17.00 % | E | United States | United States |
| Saudi Aramco Total Refining & Petrochemical Company | 37.50 % | E | Saoudia Arabia | Saoudia Arabia |
| Societe Bearnaise De Gestion Industrielle | 100.00 % | | France | France |
| Societe du Pipeline Sud-Europeen | 35.14 % | E | France | France |
| Southeast Texas Pipelines LLC | 40.00 % | | United States | United States |
| SPA Sonatrach Total Entreprise de Polymères | 49.00 % | E | Algeria | Algeria |
| Stillman Seal Corporation | 100.00 % | | United States | United States |
| Stop-Choc (UK) Limited | 100.00 % | | United Kingdom | United Kingdom |
| Synova | 100.00 % | | France | France |
| Techlam S.A.S. | 100.00 % | | France | France |
| Thermal Control Systems Automotive Sasu | 100.00 % | | France | France |
| Total Activites Maritimes | 100.00 % | | France | France |
| Total Atlantic Trading Mexico SA De CV | 100.00 % | | Mexico | Mexico |
| Total Corbion PLA B.V. | 50.00 % | E | Netherlands | Netherlands |
| Total Energy Marketing A/S | 100.00 % | | Denmark | Denmark |
| Total Opslag En Pijpleiding Nederland NV | 55.00 % | | Netherlands | Netherlands |
| Total Petrochemicals (Shangai) Limited | 100.00 % | | China | China |
| TotalEnergies Belgium Services | 100.00 % | | Belgium | Belgium |
| TotalEnergies Fluids | 100.00 % | | France | France |
| TotalEnergies Laffan Refinery Holdco | 100.00 % | | France | France |
| TotalEnergies Laffan Refinery Holdco II B.V. | 100.00 % | | Netherlands | Netherlands |
| TotalEnergies Marketing Deutschland GmbH Refining (d) | 100.00 % | | Germany | Germany |
| TotalEnergies Olefins Antwerp | 100.00 % | | Belgium | Belgium |
| TotalEnergies Petrochemicals Development Feluy | 100.00 % | | Belgium | Belgium |
| TotalEnergies Petrochemicals Ecaussinnes | 100.00 % | | Belgium | Belgium |
| TotalEnergies Petrochemicals Feluy | 100.00 % | | Belgium | Belgium |
| TotalEnergies Petrochemicals France | 100.00 % | | France | France |
| TotalEnergies Petrochemicals Hong Kong Ltd | 100.00 % | | Hong Kong | Hong Kong |
| TotalEnergies Petrochemicals Iberica | 100.00 % | | Spain | Spain |
| TotalEnergies Petrochemicals UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Pipeline USA, Inc. | 100.00 % | | United States | United States |
| TotalEnergies Plastic Energy Advanced Recycling S.A.S. | 60.00 % | | France | France |
| TotalEnergies Polymers Antwerp | 100.00 % | | Belgium | Belgium |
| TotalEnergies Raffinage Chimie | 100.00 % | | France | France |
| TotalEnergies Raffinage France | 100.00 % | | France | France |
| TotalEnergies Raffinerie Mitteldeutschland GmbH | 100.00 % | | Germany | Germany |
| TotalEnergies Refinery Antwerp | 100.00 % | | Belgium | Belgium |
| TotalEnergies Refinery Port Arthur, LLC | 100.00 % | | United States | United States |
| TotalEnergies Refining & Chemicals Arabia | 100.00 % | | France | France |
| TotalEnergies Splitter USA, Inc. | 100.00 % | | United States | United States |
| TotalEnergies Trading Asia Pte. Ltd | 100.00 % | | Singapore | Singapore |
| TotalEnergies Trading Canada LP | 100.00 % | | Canada | Canada |
| TotalEnergies Trading Europe | 100.00 % | | France | France |
| TotalEnergies Trading Holdings Canada Ltd | 100.00 % | | Canada | Canada |
| TotalEnergies Trading Products S.A. | 100.00 % | | Switzerland | Switzerland |
| TotalEnergies Trading Storage S.A. | 100.00 % | | Switzerland | Switzerland |
| TOTSA TotalEnergies Trading S.A. | 100.00 % | | Switzerland | Switzerland |
| Totseanergy | 49.00 % | E | Belgium | Belgium |
| Transalpes S.N.C. | 67.00 % | | France | France |
| Trans-Ethylene | 99.98 % | | France | France |
| Vibrachoc S.A.U. | 100.00 % | | Spain | Spain |
| Zeeland Refinery NV | 55.00 % | | Netherlands | Netherlands |

| Business segment | Statutory corporate name | % Company interest | Method | Country of incorporation | Country of operations |
|---|---|---|---|---|---|
| **Marketing & Services** | | | | | |
| | Antilles Gaz | 100.00 % | | France | France |
| | Argedis | 100.00 % | | France | France |
| | Aristea | 51.00 % | E | Belgium | Belgium |
| | Arteco | 49.99 % | E | Belgium | Belgium |
| | AS 24 | 100.00 % | | France | France |
| | AS24 Belgie N.V. | 100.00 % | | Belgium | Belgium |
| | AS24 Espanola S.A. | 100.00 % | | Spain | Spain |
| | AS24 Fuel Cards Limited | 100.00 % | | United Kingdom | United Kingdom |
| | AS24 Lithuanie | 100.00 % | | Lithunia | Lithunia |
| | AS24 Polska SP ZO.O. | 100.00 % | | Poland | Poland |
| | AS24 Tankservice GmbH | 100.00 % | | Germany | Germany |
| | BlueCharge Pte. Ltd | 100.00 % | | Singapore | Singapore |
| | Clean Energy | 19.15 % | E | United States | United States |
| | Cristal Marketing Egypt | 84.62 % | | Egypt | Egypt |
| | Elf Oil UK Aviation Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Elf Oil UK Properties Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Fioulmarket.fr | 100.00 % | | France | France |
| | Gapco Kenya Limited | 100.00 % | | Kenya | Kenya |
| | Gapco Tanzania Limited | 100.00 % | | Tanzania | Tanzania |
| | Guangzhou Elf Lubricants Company Limited | 77.00 % | | China | China |
| | Gulf Africa Petroleum Corporation | 100.00 % | | France | France |
| | Lubricants Vietnam Holding Limited | 100.00 % | | Hong Kong | Hong Kong |
| | National Petroleum Refiners Of South Africa (PTY) Limited | 18.22 % | E | South Africa | South Africa |
| | Progeres S.A.S. | 100.00 % | | France | France |
| | Quimica Vasca S.A.U. | 100.00 % | | Spain | Spain |
| | Saudi Total Petroleum Products | 51.00 % | E | Saoudia Arabia | Saoudia Arabia |
| | Servauto Nederland B.V. | 100.00 % | | Netherlands | Netherlands |
| | Societe d'exploitation de l'usine de Rouen | 98.98 % | | France | France |
| | Societe mahoraise de stockage de produits petroliers | 100.00 % | | France | France |
| | Societe Urbaine des Petroles | 100.00 % | | France | France |
| | S-OIL TotalEnergies Lubricants Co. Ltd | 50.00 % | E | South Korea | South Korea |
| | South Asia LPG Private Limited | 50.00 % | E | India | India |
| | Stedis | 100.00 % | | France | France |
| | Tas'Helat Marketing Company | 50.00 % | E | Saoudia Arabia | Saoudia Arabia |
| | TEVGO | 100.00 % | | France | France |
| | TotaEnergies Marketing Botswana (Pty) Ltd | 50.10 % | | Botswana | Botswana |
| | Total Bitumen UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| | Total China Investment Company Limited | 100.00 % | | China | China |
| | Total Energies Charging Solutions UK Ltd | 100.00 % | | United Kingdom | United Kingdom |
| | Total Especialidades Argentina | 100.00 % | | Argentina | Argentina |
| | Total Freeport Corporation | 51.00 % | E | Philippines | Philippines |
| | Total Jordan PSC | 100.00 % | | Jordan | Jordan |
| | Total Lubricants (China) Company Limited | 77.00 % | | China | China |
| | Total Marketing Tchad | 100.00 % | | Chad | Chad |
| | Total Marketing Uganda | 100.00 % | | Uganda | Uganda |
| | Total Parco Pakistan Limited | 50.00 % | E | Pakistan | Pakistan |
| | Total Petroleum (Shanghai) Company Limited | 100.00 % | | China | China |
| | Total Philippines Corporation | 51.00 % | E | Philippines | Philippines |
| | Total Sinochem Oil Company Limited | 49.00 % | E | China | China |
| | Total Tianjin Manufacturing Company Limited | 77.00 % | | China | China |
| | TotalEnergies Additives and Fuels Solutions | 100.00 % | | France | France |
| | TotalEnergies Aviation | 100.00 % | | France | France |
| | TotalEnergies Aviation Suisse S.A. | 100.00 % | | Switzerland | Switzerland |
| | TotalEnergies Aviation Zambia Ltd | 100.00 % | | Zambia | Zambia |
| | TotalEnergies Bitumen Deutschland GmbH | 100.00 % | | Germany | Germany |
| | TotalEnergies Charging Services | 100.00 % | | France | France |
| | TotalEnergies Charging Solutions Belgium | 100.00 % | | Belgium | Belgium |
| | TotalEnergies Charging Solutions Deutschland GmbH | 100.00 % | | Germany | Germany |
| | TotalEnergies Charging Solutions Nederland B.V. | 100.00 % | | Netherlands | Netherlands |
| | TotalEnergies Diesel Comercio e Transportes Brasil Ltda | 100.00 % | | Brazil | Brazil |

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|---|---|---|---|---|
| TotalEnergies Distribuidora Brasil LTDA | 100.00 % | | Brazil | Brazil |
| TotalEnergies Distribution Egypt | 84.62 % | | Egypt | Egypt |
| TotalEnergies Glass Lubricants Europe GmbH | 100.00 % | | Germany | Germany |
| TotalEnergies Holdings Deutschland GmbH | 100.00 % | | Germany | Germany |
| TotalEnergies LPG Vietnam Company Ltd | 100.00 % | | Vietnam | Vietnam |
| TotalEnergies Lubrifiants | 99.98 % | | France | France |
| TotalEnergies Lubrifiants Algérie SPA | 78.90 % | | Algeria | Algeria |
| TotalEnergies Lubrifiants Service Automobiles | 99.98 % | | France | France |
| TotalEnergies Marine Fuels Pte. Ltd | 100.00 % | | Singapore | Singapore |
| TotalEnergies Marketing & Services | 100.00 % | | France | France |
| TotalEnergies Marketing (Cambodia) Co. Ltd | 100.00 % | | Cambodia | Cambodia |
| TotalEnergies Marketing (Fiji) Pte Ltd | 100.00 % | | Fiji Islands | Fiji Islands |
| TotalEnergies Marketing (Hubei) Co., Ltd | 100.00 % | | China | China |
| TotalEnergies Marketing African Holdings Ltd | 100.00 % | | United Kingdom | United Kingdom |
| TotalEnergies Marketing Afrique | 100.00 % | | France | France |
| TotalEnergies Marketing Angola S.A. | 50.00 % | E | Angola | Angola |
| TotalEnergies Marketing Antilles-Guyane | 100.00 % | | France | France |
| TotalEnergies Marketing Asia-Pacific Middle East Pte. Ltd | 100.00 % | | Singapore | Singapore |
| TotalEnergies Marketing Belgium | 100.00 % | | Belgium | Belgium |
| TotalEnergies Marketing Burkina | 100.00 % | | Burkina Faso | Burkina Faso |
| TotalEnergies Marketing Cameroun S.A. | 67.01 % | | Cameroon | Cameroon |
| TotalEnergies Marketing Ceská republika S.R.O. | 100.00 % | | Czech Republic | Czech Republic |
| TotalEnergies Marketing Congo | 100.00 % | | Congo | Congo |
| TotalEnergies Marketing Corse | 100.00 % | | France | France |
| TotalEnergies Marketing Côte d'Ivoire | 72.99 % | | Côte d'Ivoire | Côte d'Ivoire |
| TotalEnergies Marketing Denmark A/S | 100.00 % | | Denmark | Denmark |
| TotalEnergies Marketing Egypte | 84.62 % | | Egypt | Egypt |
| TotalEnergies Marketing España, S.A.U. | 100.00 % | | Spain | Spain |
| TotalEnergies Marketing Eswatini (Pty) Ltd | 50.10 % | | Swaziland | Swaziland |
| TotalEnergies Marketing Ethiopia Share Company | 100.00 % | | Ethiopia | Ethiopia |
| TotalEnergies Marketing France | 100.00 % | | France | France |
| TotalEnergies Marketing Gabon | 90.00 % | | Gabon | Gabon |
| TotalEnergies Marketing Ghana PLC | 76.74 % | | Ghana | Ghana |
| TotalEnergies Marketing Guinea Ecuatorial | 70.00 % | | Equatorial Guinea | Equatorial Guinea |
| TotalEnergies Marketing Guinée | 100.00 % | | Guinea | Guinea |
| TotalEnergies Marketing Holdings Africa | 100.00 % | | France | France |
| TotalEnergies Marketing Holdings Asia | 100.00 % | | France | France |
| TotalEnergies Marketing Holdings India | 100.00 % | | France | France |
| TotalEnergies Marketing India Private Ltd | 100.00 % | | India | India |
| TotalEnergies Marketing Italia SpA | 100.00 % | | Italy | Italy |
| TotalEnergies Marketing Jamaica Ltd | 100.00 % | | Jamaica | Jamaica |
| TotalEnergies Marketing Kenya PLC | 93.96 % | | Kenya | Kenya |
| TotalEnergies Marketing Lebanon | 100.00 % | | Lebanon | Lebanon |
| TotalEnergies Marketing Luxembourg S.A. | 100.00 % | | Luxembourg | Luxembourg |
| TotalEnergies Marketing Madagasikara S.A. | 79.44 % | | Madagascar | Madagascar |
| TotalEnergies Marketing Malawi Ltd | 100.00 % | | Malawi | Malawi |
| TotalEnergies Marketing Mali | 100.00 % | | Mali | Mali |
| TotalEnergies Marketing Maroc | 55.00 % | | Morocco | Morocco |
| TotalEnergies Marketing Mauritius Ltd | 55.00 % | | Mauritius Island | Mauritius Island |
| TotalEnergies Marketing Mayotte | 100.00 % | | France | Mayotte |
| TotalEnergies Marketing Mexico S.A. de C.V. | 100.00 % | | Mexico | Mexico |
| TotalEnergies Marketing Middle East FZE | 100.00 % | | United Arab Emirates | United Arab Emirates |
| TotalEnergies Marketing Moçambique S.A. | 100.00 % | | Mozambique | Mozambique |
| TotalEnergies Marketing Namibia (Pty) Ltd | 50.10 % | | Namibia | Namibia |
| TotalEnergies Marketing Nederland NV | 100.00 % | | Netherlands | Netherlands |
| TotalEnergies Marketing Nigeria PLC | 61.72 % | | Nigeria | Nigeria |
| TotalEnergies Marketing Pacifique | 100.00 % | | France | New Caledonia |
| TotalEnergies Marketing Polska | 100.00 % | | Poland | Poland |
| TotalEnergies Marketing Polynésie | 100.00 % | | France | French Polynesia |
| TotalEnergies Marketing Puerto Rico | 100.00 % | | Puerto Rico | Puerto Rico |
| TotalEnergies Marketing RDC | 60.00 % | | Democratic Republic of Congo | Democratic Republic of Congo |
| TotalEnergies Marketing Réunion | 100.00 % | | France | Reunion |
| TotalEnergies Marketing Romania S.A. | 100.00 % | | Romania | Romania |
| TotalEnergies Marketing Russia | 100.00 % | | Russia | Russia |

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|---|---|---|---|---|---|
| | TotalEnergies Marketing Sénégal | 69.14 % | | Senegal | Senegal |
| | TotalEnergies Marketing South Africa (Pty) Ltd | 50.10 % | | South Africa | South Africa |
| | TotalEnergies Marketing Taiwan Ltd | 63.00 % | | Taiwan | Taiwan |
| | TotalEnergies Marketing Tanzania Ltd | 100.00 % | | Tanzania | Tanzania |
| | TotalEnergies Marketing Togo | 76.72 % | | Togo | Togo |
| | TotalEnergies Marketing Tunisie | 100.00 % | | Tunisia | Tunisia |
| | TotalEnergies Marketing UAE LLC | 100.00 % | | United Arab Emirates | United Arab Emirates |
| | TotalEnergies Marketing Uganda Ltd | 100.00 % | | Uganda | Uganda |
| | TotalEnergies Marketing UK Limited | 100.00 % | | United Kingdom | United Kingdom |
| | TotalEnergies Marketing Ukraine | 100.00 % | | Ukraine | Ukraine |
| | TotalEnergies Marketing USA Inc. | 100.00 % | | United States | United States |
| | TotalEnergies Marketing Vietnam Company Ltd | 100.00 % | | Vietnam | Vietnam |
| | TotalEnergies Marketing Zambia Ltd | 100.00 % | | Zambia | Zambia |
| | TotalEnergies Marketing Zimbabwe (Private) Ltd | 80.00 % | | Zimbabwe | Zimbabwe |
| | TotalEnergies Proxi Nord Est | 100.00 % | | France | France |
| | TotalEnergies Proxi Nord Ouest | 100.00 % | | France | France |
| | TotalEnergies Proxi Sud Est | 100.00 % | | France | France |
| | TotalEnergies Proxi Sud Ouest | 100.00 % | | France | France |
| | TotalEnergies Singapore Services Pte Ltd | 100.00 % | | Singapore | Singapore |
| | TotalEnergies Supply Marketing Services S.A. | 100.00 % | | Switzerland | Switzerland |
| | TotalEnergies Turkey Pazarlama A.S. | 100.00 % | | Turkey | Turkey |
| | TotalEnergies Wärme&Kraftstoff Deutschland GmbH | 100.00 % | | Germany | Germany |
| | Trapil | 5.50 % | E | France | France |
| | Upbeatprops 100 PTY Limited | 50.10 % | | South Africa | South Africa |
| | V Energy S.A. | 50.00 % | | Dominican Republic | Dominican Republic |
| | Yangtze Gorges Green Way Charging Technology (Hubei) Co., Ltd. | 50.00 % | E | China | China |

| Business segment | Statutory corporate name | % Company interest | Method | Country of incorporation | Country of operations |
|---|---|---|---|---|---|
| **Corporate** | | | | | |
| | Albatros | 100.00 % | | France | France |
| | Elf Aquitaine Fertilisants | 100.00 % | | France | France |
| | Elf Aquitaine Inc. | 100.00 % | | United States | United States |
| | Elf Forest Products LLC | 100.00 % | | United States | United States |
| | Institut Photovoltaique D'Ile De France (IPVF) | 43.00 % | | France | France |
| | Omnium Reinsurance Company S.A. | 100.00 % | | Switzerland | Switzerland |
| | Pan Insurance Limited | 100.00 % | | Ireland | Ireland |
| | Septentrion Participations | 100.00 % | | France | France |
| | Socap S.A.S. | 100.00 % | | France | France |
| | Societe Civile Immobiliere CB2 | 100.00 % | | France | France |
| | Sofax Banque | 100.00 % | | France | France |
| | Total Energy Investments Tianjin | 100.00 % | | China | China |
| | Total Global Services Bucharest | 99.00 % | | Romania | Romania |
| | Total International NV | 100.00 % | | Netherlands | Netherlands |
| | Total Investment Management Tianjin | 100.00 % | | China | China |
| | Total Operations Canada Limited | 100.00 % | | Canada | Canada |
| | Total Resources (Canada) Limited | 100.00 % | | Canada | Canada |
| | TotalEnergies (Beijing) Corporate Management Co., Ltd. | 100.00 % | | China | China |
| | TotalEnergies American Services, Inc. | 100.00 % | | United States | United States |
| | TotalEnergies Capital | 100.00 % | | France | France |
| | TotalEnergies Capital Canada Ltd | 100.00 % | | Canada | Canada |
| | TotalEnergies Capital International | 100.00 % | | France | France |
| | TotalEnergies Consulting | 100.00 % | | France | France |
| | TotalEnergies Delaware, Inc. | 100.00 % | | United States | United States |
| | TotalEnergies Développement Régional S.A.S. | 100.00 % | | France | France |
| | TotalEnergies Digital Factory | 100.00 % | | France | France |
| | TotalEnergies EP Gestion Filiales | 100.00 % | | France | France |
| | TotalEnergies Facilities Management Services (TFMS) | 100.00 % | | France | France |
| | TotalEnergies Finance | 100.00 % | | France | France |
| | TotalEnergies Finance Corporate Services Ltd | 100.00 % | | United Kingdom | United Kingdom |
| | TotalEnergies Finance International B.V. | 100.00 % | | Netherlands | Netherlands |
| | TotalEnergies Finance USA, Inc. | 100.00 % | | United States | United States |
| | TotalEnergies Funding Nederland B.V. | 100.00 % | | Netherlands | Netherlands |
| | TotalEnergies Gestion USA | 100.00 % | | France | France |

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|---|---|---|---|
| TotalEnergies Global Financial Services | 100.00 % | France | France |
| TotalEnergies Global Human Resources Services | 100.00 % | France | France |
| TotalEnergies Global Information Technology Services Belgium | 99.98 % | Belgium | Belgium |
| TotalEnergies Global IT Services (TGITS) | 100.00 % | France | France |
| TotalEnergies Global Procurement (TGP) | 100.00 % | France | France |
| TotalEnergies Global Procurement Belgium S.A. (TGPB) | 100.00 % | Belgium | Belgium |
| TotalEnergies Global Services Philippines Inc. | 100.00 % | Philippines | Philippines |
| TotalEnergies Holding Allemagne | 100.00 % | France | France |
| TotalEnergies Holdings | 100.00 % | France | France |
| TotalEnergies Holdings Europe | 100.00 % | France | France |
| TotalEnergies Holdings UK Ltd | 100.00 % | United Kingdom | United Kingdom |
| TotalEnergies Holdings USA, Inc. | 100.00 % | United States | United States |
| TotalEnergies Investments | 100.00 % | France | France |
| TotalEnergies Learning Solutions (TLS) | 100.00 % | France | France |
| TotalEnergies Marketing Holdings Nederland B.V. | 100.00 % | Netherlands | Netherlands |
| TotalEnergies Marketing Holdings South Africa ZA (Pty) Ltd | 100.00 % | South Africa | Netherlands |
| TotalEnergies One Tech Belgium | 100.00 % | Belgium | Belgium |
| TotalEnergies OneTech | 100.00 % | France | France |
| TotalEnergies Participations | 100.00 % | France | France |
| TotalEnergies Petrochemicals & Refining (Holding) | 100.00 % | Belgium | Belgium |
| TotalEnergies Petrochemicals & Refining USA, Inc. (d) | 100.00 % | United States | United States |
| TotalEnergies SE | – | France | France |
| TotalEnergies Security USA, Inc. | 100.00 % | United States | United States |
| TotalEnergies Treasury | 100.00 % | France | France |
| TotalEnergies Treasury Belgium | 100.00 % | Belgium | Belgium |
| TotalEnergies UK Finance Ltd | 100.00 % | United Kingdom | United Kingdom |

(a) Del Rio Funding LLC, % of control different from % of interest : 50.00%
(b) Total Eren, % of control different from % of interest : 5.80%
(c) TotalEnergies Australia Unit Trust, % of control different from % of interest : 75.16%
(d) Multi-segment entities

**EXHIBIT 1**

This translation is a non-binding translation into English of the Articles of Association in French.
In case of discrepancies, only the French version prevails.

# TotalEnergies SE

EUROPEAN COMPANY WITH A CAPITAL OF €6 225 655 060,00

REPRESENTED BY 2 490 262 024 SHARES OF €2.50 EACH

NANTERRE TRADE AND COMPANIES REGISTER 542 051 180

*Registered Office*

*2 Place Jean Millier*
*La Défense 6*
*92400 Courbevoie*
*France*

**ARTICLES OF ASSOCIATION**

*(Last update on February 7th, 2023)*

# *CONTENTS*

# TITLE I

## Form – Name – Purpose – Registered Office – Duration

### ARTICLE 1 – FORM

The Company, initially formed as a French limited liability company (*société anonyme*), was converted into a European company (*Societas Europaea* or SE) by decision of the Extraordinary Shareholders' Meeting of May 29, 2020.

The Company is governed by applicable EU and national provisions and by these Articles of Association.

### ARTICLE 2 – NAME

The Company has the following name:

TotalEnergies SE

In all official deeds and other documents issued by the Company, the corporate name shall be preceded or followed by an indication of the amount of the share capital as well as the location and number of registration on the Trade and Companies Register.

### ARTICLE 3 - PURPOSE

The Company's purpose is, directly or indirectly, in all countries:

1° - To conduct all activities relating to production and distribution of all forms of energy, including electricity from renewable energies;

2° - To search for and extract mining deposits, and particularly hydrocarbons in all forms, and to perform manufacturing, refining, transportation, processing and trading in the said materials, as well as their derivatives and by-products;

3° - To conduct all activities relating to the chemical sector in all of its forms, as well as all activities relating to the rubber sector;

and generally, to conduct all financial, commercial and industrial operations and operations relating to any fixed or unfixed assets and real estate, acquisitions of interests or holdings, in any form whatsoever, in any business or company existing or to be created that may relate, directly or indirectly, to any of the above-mentioned purposes or to any similar or related purposes, of such nature as to promote the Company's extension or its development.

## ARTICLE 4 - REGISTERED OFFICE

The Company's registered office is: 2 Place Jean Millier
La Défense 6
92400 COURBEVOIE - France

Transfer of the registered office falls within the competence of the Shareholders' Meeting under the conditions stipulated by the applicable regulations.

Relocation of the registered office within the French territory may be decided by the Board of Directors, subject to ratification of this decision by the next Ordinary Shareholders' Meeting.

## ARTICLE 5 - DURATION

The Company's duration, initially set at 99 years starting with the date of its definitive constitution, namely 28 March 1924, is extended until 28 March 2119. Hence the Company's existence shall continue until 28 March 2119, in the absence of early dissolution or of further extension.

# TITLE II

# Share Capital – Shares

## ARTICLE 6 - SHARE CAPITAL

The share capital is set at an amount of € 6 225 655 060,00, represented by 2 490 262 024 shares of 2.50 euros each.

## ARTICLE 7 - PAYING UP OF SHARES

Shares are subscribed according to applicable law.

The Board of Directors determines the amount and the payment due dates of any cash sums remaining to be paid on the shares.

Any calls for funds are published at least fifteen days in advance in a newspaper for legal notices in the department of the registered office.

Any payment not made by the applicable due date shall automatically bear interest, without further notice, in favour of the Company at the legal rate increased by one percent from the due date and without any formal notice.

## ARTICLE 8 - FORM AND TRANSFER OF SHARES

Fully paid-up shares may be held as registered shares or bearer shares, at the shareholder's option.

The shares are entered in a stock ledger.

Bearer shares and registered shares are freely transferable.

## ARTICLE 9 - IDENTIFICATION OF SHAREHOLDERS – DECLARATION OF CROSSING OWNERSHIP THRESHOLDS

The Company is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the Company's Shareholders' Meetings.

In addition to obligations that shareholders may have under applicable law to notify the Company upon crossing certain percentages of share ownership or voting rights, any person, whether a natural person or a legal entity, who comes to hold, directly or indirectly, 1% or more, or any multiple of 1%, of the share capital or the voting rights or of securities that may include future voting rights or future access to share capital or voting rights, is required to inform the Company by registered mail with return receipt requested, indicating the number of securities or voting rights held, within a period of 15 days from the date of crossing each of the said thresholds.

In determining the ownership or voting rights percentages provided for in the previous paragraph, shares or voting rights held by controlled companies, as defined in Article L. 233-3 of the French Commercial Code, must be included if applicable.

In the event of a failure to declare ownership of shares or voting rights as described above, any shares or voting rights exceeding the fraction that should have been declared may be deprived of voting rights at a Shareholders' Meeting if, at the meeting, the failure to declare ownership of such shares or voting rights has been noted and if one or several shareholders holding, collectively, at least 3% of the Company's capital or voting rights so request at such meeting.

Any natural person or legal entity is also required to inform the Company in the manner and within the time periods set forth above in the second paragraph of this article when his or her direct or indirect holdings fall below each of the applicable thresholds in said paragraph.

## ARTICLE 10 – RIGHTS AND OBLIGATIONS ATTACHED TO SHARES

In addition to a voting right, each share entitles the holder to an ownership interest in the business assets, in the sharing of profits and of liquidation surpluses, in proportion to the number of shares outstanding from time to time.

Whenever it is necessary to possess several shares in order to exercise a right, shares held in a number below the requisite number of shares do not entitle their holder to any right against the Company, it being up to the shareholder in such a case to personally seek to collect or group together the requisite number of shares.

# TITLE III

## Administration – General Management – Auditing

## ARTICLE 11 - COMPOSITION OF THE BOARD OF DIRECTORS

1) The Company is administered by a Board of Directors, the minimum and maximum number of members of which are defined by applicable law in effect from time to time.

2) The permanent representative of a legal entity appointed as a Director must be approved in advance by the Board of Directors. Such representatives must be less than 70 years old.

3) Each Director must own at least 1,000 shares during his or her term of office.

4) The term of office for Directors is set by the shareholders acting in an Ordinary Shareholders' Meeting for a term of office not to exceed three years, subject to applicable law that may allow extension of the duration of a given term until the next Ordinary Shareholders' Meeting held to approve the financial statements.

5) The number of Directors, being natural persons and more than 70 years old, may not exceed one-third of the sitting Directors as determined on the last day of each fiscal year. If this proportion is exceeded, the oldest Board member is automatically considered to have resigned.

6) When at the close of a financial year, the portion of capital owned by the Company's employees and those of companies affiliated to it as per Article L. 225-180 of the French Commercial Code, determined according to the provisions of Article L. 225-102 of said Code (after taking into account the registered shares held directly by employees and governed by Article L. 225-197-1 of the French Commercial Code, regardless of their grant date) represents more than 3%, a Director is elected at the Ordinary Shareholders' Meeting upon proposal of the shareholders referred to in Article L. 225-102 of the French Commercial Code (hereafter the "Director representing employee shareholders") in accordance with the procedures provided by the applicable regulations and these Articles of Association.

7) Candidates for appointment to the office of Director representing employee shareholders are selected on the following basis:

   a) When voting rights linked to shares held by employees or by employee mutual investment funds of which they are beneficiaries are exercised by the members of the Supervisory Board of such employee mutual investment funds, candidates are selected by such Board among its members.

   b) When voting rights linked to shares held by employees (or by employee mutual investment funds of which they are beneficiaries) are exercised directly by such employees, candidates shall be appointed further to the consultation as per Article L. 225-106 of the French Commercial Code, either by employee shareholders in a meeting convened specifically for such purpose, or by a written consultation. Only candidates put forward by a group of shareholders representing at least 5% of the shares held by employees exercising their individual voting rights shall be admissible.

8) Procedures for appointing candidates when such provisions are not laid down in law and regulations in force, or by these Articles of Association, shall be determined by the Chairman of the Board of Directors, in particular with respect to the timing of the appointment of such candidates.

9) A list of all validly appointed candidates shall be prepared. This list shall comprise at least two names. The list of candidates shall be appended to the notice convening the Shareholders' Meeting called to appoint the Director representing employee shareholders.

10) The Director representing employee shareholders shall be elected at the Ordinary Shareholders' Meeting on the same terms as those applicable to all appointments of Directors, upon proposal from the shareholders as provided for by Article L. 225-102 of the French Commercial Code (as referred to in the sixth paragraph of the present article). The Board of Directors shall table the list of candidates at the Shareholders' Meeting by order of preference, and may give its approval to the first candidate appearing on such list. The candidate referred to above who shall have received the greatest number of votes from shareholders present or represented at the Ordinary Shareholders' Meeting shall be appointed as the Director representing employee shareholders.

11) Such Director shall be disregarded for the purposes of determining the maximum number of Directors stipulated under Article L. 225-17 of the French Commercial Code and for the purposes of applying the first paragraph of Article L. 225-18-1 of the said Code.

12) The term of office of any Director representing employee shareholders shall be three years. However, his or her term of office shall end forthwith, and the Director representing employee shareholders shall be considered to have resigned automatically upon his or her ceasing to be an employee of the Company (or of a company or economic interest group affiliated to it as per Article L. 225-180 of the French Commercial Code) or a shareholder (or a member of an investment fund, at least 90% of whose assets comprise the Company's shares). Until the date of appointment or replacement of any Director representing employee shareholders, the Board of Directors may hold meetings and vote validly.

13) In the event the seat of the Director representing employee shareholders shall become vacant, for any reason whatsoever, such Director shall be replaced in the manner specified above, such Director to be appointed at the Ordinary Shareholders' Meeting for a new three-year term.

14) The provisions governing the sixth paragraph of this article shall cease to apply when, at the close of any given financial year, the percentage of equity held by the Company's employees and those of the companies affiliated to it as per aforementioned Article L. 225-180, within the framework stipulated by the provisions of aforementioned Article L. 225-102, is equal to less than 3% of all issued share capital of the Company; notwithstanding the foregoing, the term of any Director appointed pursuant to the sixth paragraph of this article shall only expire at its term.

15) The provisions governing the third paragraph of this article shall not apply to the Director representing employee shareholders. Nonetheless, this Director representing employee shareholders shall hold, either individually, or through an employee mutual investment fund (FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code, at least one share or a number of stocks in such employee mutual investment fund amounting to at least one share.

16) When the Company satisfies the provisions of Article L. 225-27-1 of the French Commercial Code, the Board of Directors shall also include one or two Directors representing employees.

17) A Director representing employees is appointed by the Company's Central Social and Economic Works Council ("Central Social and Economic Works Council"). When the number of Directors appointed by the Shareholders' Meeting is greater than eight, a second Director representing employees is appointed by the European Company Committee ("SE Committee"). The procedures for voting in the Central Social and Economic Works Council and the SE Committee to appoint Directors are the same rules used to appoint the Secretaries of those Council and Committee.

18) Pursuant to Article L. 225-28 of the French Commercial Code, the Director appointed by the Central Social and Economic Works Council must hold an employment contract with the Company or one of its direct or indirect subsidiaries whose registered head office was located on French territory at least two years before his or her appointment. Notwithstanding, the second Director appointed by the SE Committee must hold an employment contract with the Company or one of its direct or indirect subsidiaries at least two years before his or her appointment.

19) The Central Social and Economic Works Council and the SE Committee shall be informed of changes in the number of Directors appointed by the Shareholders' Meeting taken into account for purposes of applying the seventeenth paragraph of this article.

20) Neither the Director representing employee shareholders elected by the Shareholders' Meeting pursuant to Article L. 225-23 of the French Commercial Code and these Articles of Association, nor the Director or Directors representing employees designated pursuant to Article L. 225-27-1 of the French Commercial Code are taken into account to define the eight-member threshold mentioned above, since this eight-member threshold is determined when the employee Director or employee Directors are appointed.

21) The term of office of a Director representing employees is three years. Nevertheless, his or her term of office ends at the close of the Ordinary Shareholders' Meeting that approves the financial statements for the previous fiscal year during which the said Director's term of office expired.

22) If the number of Directors appointed by the Ordinary Shareholders' Meeting falls to eight or less, the term of office of the Director appointed by the SE Committee continues to the end of his or her term.

23) If, at the close of a Shareholders' Meeting, the number of Directors appointed by the Meeting increases to more than eight, the SE Committee shall appoint the second Director representing employees no later than within six months following the said Meeting.

24) The provisions governing the third paragraph of this article shall not apply to the Directors appointed by the Central Economic and Social Works Council and the SE Committee.

25) In the event that the obligation to appoint one or more Directors representing employees pursuant to L. 225-27-1 of the French Commercial Code should cease to apply, the term of office of the Director or Directors representing employees shall end at the close of the Ordinary Shareholders' Meeting that approves the financial statements for the year during which the obligation ceased to apply.

26) The Directors representing employees shall be disregarded for the purposes of determining the maximum number of Directors stipulated under Article L. 225-17 of the French Commercial Code and for purposes of applying the first paragraph of Article L. 225-18-1 of the said Code.

## ARTICLE 12 - ORGANIZATION OF THE BOARD OF DIRECTORS

The Board appoints a Chairman (*Président du Conseil d'administration*) from among its members who must be a natural person.

The Chairman of the Board of Directors represents the Board of Directors. He or she organizes and directs the Board's work and reports thereon to the shareholders at Shareholders' Meetings. He or she ensures the proper functioning of the Company's bodies and ensures, in particular, that the Directors are able to carry out their duties.

The Board may also appoint one or two Vice Chairmen (*Vice Président du Conseil d'administration*) who must be natural persons. The rights and duties of the Chairman and of the Vice Chairman or Chairmen may be withdrawn from them at any time by the Board. The Chairman's rights and duties cease automatically no later than on the date of his or her 70th birthday.

The Board also designates a natural person to act as secretary, who is not required to be a Board member.

The Board may establish one or more committees responsible for considering questions submitted by the Board or by its Chairman for their consideration and opinion. The Board determines the composition and the powers of the committees, which carry on their activity under the supervision of the Board.

Within the limit of a global amount set by the Shareholders' Meeting which remains in effect until a new decision is taken, the Directors receive for their duties a compensation determined in accordance with applicable legal and regulatory provisions.

The Board may allocate a larger share to Directors who are members of the above-mentioned committees than the amount apportioned to other Directors.

## ARTICLE 13 - BOARD OF DIRECTORS' DECISIONS

The Board of Directors meets as often as required to serve the Company's interests and at least every three months to deliberate on the progress of the Company's business and foreseeable developments.
A Board meeting may be called by any means, even orally, and even on short notice depending on the urgency, at the initiative of either the Chairman or a Vice Chairman, or by one-third of its members. Such meeting may be called to be held either at the registered office or at any other place indicated in the notice.

At least half of the members must be present or represented for the Board's decisions to be valid.

Decisions are taken based on the majority of votes by the members present or represented. In the case of a tie vote, the Chairman of the meeting holds a casting vote.

When permitted by applicable regulations, Directors participating in meeting by video-conference or means of telecommunication determined by decree, shall be deemed to be present for calculation of the quorum and majority.

## ARTICLE 14 - BOARD OF DIRECTORS' POWERS

The Board of Directors determines the guidelines governing the Company's activity and oversees their application in accordance with its corporate interest, taking into consideration the social and environmental challenges of its activity. Subject to the powers explicitly attributed to shareholders and within the limits of the business purpose, the Board considers any question affecting the proper operation of the Company and its decisions settle the matters concerning it.

The Board of Directors takes all decisions and exercises any prerogative within its remits according to applicable regulations, these Articles of Association, the delegations of the Shareholders' Meeting and its Rules of Procedure.

The prior authorization of the Board of Directors is required for the commitments in the name of the Company in the form of sureties, endorsements and guarantees given under the conditions determined by Article L. 225-35 paragraph 4 of the French Commercial Code.

The Board of Directors performs such auditing and verification as it considers appropriate.

Each Director is entitled to receive all information required for the performance of his or her duties and may obtain any documents he or she considers useful. His or her requests must be addressed to the Chairman of the Board of Directors.

## ARTICLE 15 - GENERAL MANAGEMENT OF THE COMPANY

1) General management of the Company is performed under the responsibility of either the Chairman of the Board of Directors (*Président du Conseil d'administration*) or by another natural person appointed by the Board of Directors and bearing the title of Chief Executive Officer (*Directeur Général*).

   The Board of Directors selects one of the aforementioned methods of exercising general management under the quorum and majority provisions set forth in article 13 of these Articles of Association. The Company shall inform its shareholders and third parties of its determination in accordance with applicable regulations.

   Once the Board makes such a determination, it remains in effect until a contrary decision is made pursuant to the same procedure.

   Any change in the method of exercise of general management will not in and of itself effect any change in these Articles of Association.

   The Board is required to meet to consider a possible change of methods for exercising general management either at the request of the Chairman or of the Chief Executive Officer, or at the request of one-third of the Board members.

2) When general management of the Company is assumed by the Chairman, the legal, regulatory or statutory provisions relating to the Chief Executive Officer are applicable to him or her, and he or she takes the title of Chairman and Chief Executive Officer (*Président-Directeur Général*).

   When the Board of Directors determines to separate the functions of Chairman of the Board of Directors (*Président du Conseil d'administration*) and Chief Executive Officer (*Directeur Général*), the Board appoints a Chief Executive Officer, sets the term for his or her appointment and the extent of his or her powers. Decisions by the Board of Directors limiting the extent of the powers of the Chief Executive Officer are not enforceable against third parties.

   The Chief Executive Officer must be less than 67 years old in order to exercise his or her duties. Upon reaching this age limit during the exercise of his or her duties, his or her appointment terminates automatically and the Board of Directors appoints a new Chief Executive Officer. Notwithstanding the foregoing, his or her duties as Chief Executive Officer are extended until the date of the meeting of the Board of Directors asked to appoint his or her successor. Subject to the age limit specified above, a Chief Executive Officer remains eligible for reappointment.

   The Chief Executive Officer may be dismissed at any time by the Board of Directors.

   In the event that the Chief Executive Officer is temporarily unable to exercise his or her duties, the Board of Directors may delegate his or her functions to a Director.

3) The Chief Executive Officer is invested with the most extensive powers to act in the Company's name under all circumstances. He or she exercises those powers within the limits of the business purpose and subject to the powers explicitly assigned by law to Shareholders' Meetings and to the Board of Directors. He or she represents the Company in its relations with third parties.

   The Chief Executive Officer may request the Chairman to call a meeting of the Board of Directors regarding a specified agenda.

   If the Chief Executive Officer is not also a member of the Board of Directors, he or she may attend meetings of the Board of Directors in an advisory capacity.

4) On the basis of a proposal by the Chief Executive Officer, the Board may appoint one to five natural persons at most responsible for assisting the Chief Executive Officer and bearing the title of Deputy Chief Executive Officer (*Directeur Général Délégué*). The Board determines the extent of their powers and their term of office, it being understood that Deputy Chief Executive Officers hold the same powers as the Chief Executive Officer.

   The Deputy Chief Executive Officer or Deputy Chief Executive Officers may be dismissed by the Board of Directors at any time, upon motion by the Chief Executive Officer.

   In the event that the Chief Executive Officer is temporarily unable to perform his or her duties or ceases his or her duties, the Deputy Chief Executive Officer or the Deputy Chief Executive Officers retain their duties and powers until the appointment of a new Chief Executive Officer, unless the Board of Directors decides otherwise.

5) The Chief Executive Officer and, if applicable, one or more Deputy Chief Executive Officers, may be authorized to grant delegations of their authority within the limit of applicable laws and regulations.

   Fixed or variable remuneration, or fixed and variable remuneration, may be granted by the Board of Directors, to the Chairman, the Chief Executive Officer, any Deputy Chief Executive Officer or, generally, to any other persons to whom any authority or mandate is assigned. Such compensation shall be charged to business expenses.

## ARTICLE 16 – AUDITORS

The shareholders acting in a Shareholders' Meeting designate the statutory and deputy auditors in accordance with applicable law.

# TITLE IV

# Shareholders' Meetings

## ARTICLE 17 - NOTICE – PARTICIPATION IN SHAREHOLDERS' MEETINGS

1) Shareholders' Meetings are called in accordance with applicable law.

   The meetings take place at the registered office or at any other place indicated in the notice of meeting.

   All shareholders may attend Shareholders' Meetings, irrespective of the number of shares held.

   Any shareholder may vote by mail, using a form containing the regulatory notices.

   Any shareholder may delegate voting authority at Shareholders' Meetings in accordance with the terms and conditions provided for by applicable regulations.

   Legal entities that are shareholders take part in the meetings through their legal representatives or through any agent designated for that purpose.

2) Participation in Shareholders' Meetings, in any form whatsoever, shall be subject to registering or recording shares under the conditions and within the time periods provided for by applicable regulations.

The Board of Directors has the option to accept voting forms and proxies that reach the Company after the deadline provided for by applicable regulations.

It also has the option to decide that shareholders may participate and vote in any meeting by video-conference or other means of telecommunication under the conditions established by applicable regulations; the electronic signature that may result from any reliable identification process shall guarantee its connection with the instrument related thereto.

## ARTICLE 18 - HOLDING SHAREHOLDERS' MEETINGS – DECISIONS

The Shareholders' Meeting is chaired by the Chairman of the Board of Directors or, failing that, by a Vice Chairman or, in his or her absence, by a Director designated by the Board.

Shareholders' Meetings, whether ordinary, extraordinary or combined, make their decisions pursuant to the quorum and majority conditions applicable to the provisions governing the type of meeting and they may exercise the powers attributed to them by law.

There is secret voting when such voting is demanded by several shareholders representing at least one quarter of the share capital.

Subject to the following provisions, each member of the Meeting is entitled to as many votes as he or she possesses or the number of shares for which he or she holds proxies.

However, a double voting right is granted, in the light of the share of the share capital they represent, to all registered shares paid up in full that have been entered in the name of the same shareholder for at least two years, as well as, in case of a capital increase by incorporation of reserves, profits or premiums on shares, to the registered shares that are allocated without charge to a shareholder in connection with previously existing shares for which he or she benefits from the said right. Any merger of the company would have no effect on the double voting right, which may be exercised within the absorbing company, if the latter's Articles of Association have created a similar right.

The double voting right shall terminate automatically in respect of shares that are converted to bearer form or are transferred. Nevertheless any transfer from registered share to registered share, due to inheritance *ab intestat* or testamentary inheritance, division of community property between spouses, or donation *inter vivos* to the benefit of the spouse or of relatives eligible to inherit shall not interrupt the period set above or shall retain the acquired right.

At Shareholders' Meetings, no shareholder may cast, personally or via a proxy, in connection with the simple voting rights attached to the shares he or she holds directly or indirectly and in connection with the powers of attorney granted to him or her, more than 10% of the total number of voting rights attached to the Company's shares. However, if he or she also holds double voting rights, on an individual basis and/or by proxy, the above limit may be exceeded, solely taking account of the additional voting rights resulting therefrom, without all of the voting rights that he or she exercises being able to exceed 20% of the total number of voting rights attached to the Company's shares.

For application of the above provisions:

- the total number of voting rights attached to the Company's shares taken into account is calculated on the date of the Shareholders' Meeting and is brought to the shareholders' attention at the opening of said Meeting,

- the number of voting rights held directly and indirectly is to be understood to include those that are attached to the shares held by a natural person on his or her own behalf, either on a personal basis or in connection with joint ownership, or held by a company, grouping, association or foundation, and including those that are attached to the shares held by a controlled company within the meaning of Article L. 233-3 of the French Commercial Code, by another company or by a natural person, association, grouping or foundation,

- for the voting rights cast by the Chairman of the Shareholders' Meeting, the voting rights attached to shares for which a power of attorney has been returned to the Company without any indication of a representative and which, individually, do not violate the prescribed limitations, are not taken into account for the above limits.

The limitations provided for in the above paragraphs have no effect on the calculation of the total number of voting rights, including double voting rights, attached to the Company's shares and which shall be taken into account for application of the legislative, regulatory and statutory provisions stipulating special obligations with reference to the number of voting rights existing in the Company or to the number of shares having voting rights.

In addition, the limitations provided for above shall lapse, without any need for a new decision by an Extraordinary Shareholders' Meeting, when a natural person or legal entity, acting alone or in concert with one or several natural persons or legal entities, comes to hold at least two-thirds of the total number of Company shares following a public offer for all of the Company's shares. In such a case, the Board of Directors would take note of the said lapse and carry out the related formalities concerning modification of the Articles of Association.

## TITLE V

## Regulated Agreements

### ARTICLE 19 - REGULATED AGREEMENTS

Pursuant to Article L. 229-7 paragraph 6 of the French Commercial Code, the provisions of Articles L. 225-38 to L. 225-42 of the French Commercial Code are applicable to agreements concluded by the Company.

## TITLE VI

## Company Financial Statements

### ARTICLE 20 - FINANCIAL YEAR – FINANCIAL STATEMENTS

The financial year begins on January 1 and ends on December 31.

At the end of each financial year, the Board of Directors draws up an inventory, an income statement and a balance sheet, as well as the notes supplementing them, and establishes a management report. It also establishes the Group's consolidated financial statements.

### ARTICLE 21 - ALLOCATION OF RESULTS

The net income for the financial year, after deduction of overheads and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, constitutes the net profit.

From the said profit, reduced by the prior losses, if any, the following items are deducted in the indicated order:

1°/ 5% to constitute the legal reserve fund until the said fund reaches one-tenth of the share capital;

2°/ The amount set by the shareholders at a Shareholders' Meeting with a view to constitution of reserves of which it determines the allocation or the use;

3°/ The amounts that the shareholders decide at a Shareholders' Meeting to carry forward.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay out interim dividends.

The Shareholders' Meeting held to approve the financial statements for the financial year may decide to grant an option to each shareholder, with respect to all or part of the dividend or of the interim dividends, between payment of the dividend in cash and payment in shares.

The Shareholders' Meeting may decide at any time, but only on the basis of a proposal by the Board of Directors, to effect a complete or partial distribution of the amounts appearing in the reserve accounts, either in cash or in Company shares.

## TITLE VII

## Dissolution – Disputes

### ARTICLE 22 – DISSOLUTION – LIQUIDATION

At the time of the Company's expiration or early dissolution, the shareholders acting at a Shareholders' Meeting determine the liquidation procedure and appoint one or several liquidators whose powers and compensation it determines.

### ARTICLE 23 - DISPUTES

Any disputes that may arise during the Company's existence or at the time of its liquidation, either between the shareholders and the Company or among the shareholders themselves, on the subject of business matters, shall be subject to the jurisdiction of the competent courts of the registered office.

**EXHIBIT 2.2**

DESCRIPTION OF SECURITIES
REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

As of December 31, 2022, TotalEnergies SE had the following series of securities registered pursuant to Section 12(b) of the Exchange Act.

Securities registered or to be registered pursuant to Section 12(b) of the Act.

| **Title of each class** | **Trading symbol** | **Name of each exchange on which registered** |
|---|---|---|
| Shares | | New York Stock Exchange* |
| American Depositary Shares | TTE | New York Stock Exchange |

*Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Capitalized terms used but not defined herein have the meanings given to them in TotalEnergies SE's annual report on Form 20-F for the fiscal year ended December 31, 2022.

SHARES

The following description of TotalEnergies shares is a summary and does not purport to be complete. It is subject to and qualified in its entirety by TotalEnergies SE's articles of association (updated as at February 7, 2022) and by law and regulations applicable in France.

A copy of TotalEnergies SE's articles of association (updated as at February 7, 2022) is filed as an exhibit to TotalEnergies SE's annual report on Form 20-F for the fiscal year ended December 31, 2022, as Exhibit 1.

GENERAL (*Item 9.A.5*)

TotalEnergies SE is a European Company (*societas europaea* or SE), whose share capital is publicly traded. As at December 31, 2022, the share capital of TotalEnergies SE amounted to €6,547,828,212.50 and consisted of 2,619,131,285 ordinary shares of nominal value of €2.50 each.

TotalEnergies shares are listed on the regulated market of Euronext Paris (France), on the market of Euronext Brussels (Belgium) and on the London Stock Exchange (United Kingdom). TotalEnergies SE's American depositary shares ("ADS"), as described further below, representing one TotalEnergies SE share each, are listed on the New York Stock Exchange ("NYSE", United States) under the symbol "TTE".

TotalEnergies SE's fully paid up shares may be held as registered shares or bearer shares, at the shareholder's option. TotalEnergies shares are not subject to any sinking fund or redemption provisions.

RESTRICTIONS ON TRANSFERS OF TOTALENERGIES SHARES

Shares of TotalEnergies SE, either in the bearer or registered form, are freely transferable.

PRE-EMPTION RIGHTS (*Item 9.A.3*)

Not applicable.

LIMITATIONS OR QUALIFICATIONS (*Item 9.A.6*)

Not applicable.

OTHER RIGHTS (*Item 9.A.7*)

Not applicable.

Whenever it is necessary to possess several TotalEnergies shares in order to exercise a right, TotalEnergies shares held in a number below the requisite number of TotalEnergies shares do not entitle their holder to any right against TotalEnergies SE, it being up to the shareholder in such a case to personally seek to collect or group together the requisite number of TotalEnergies shares.

***Allocation of results, liquidation rights and dividend rights***

Each TotalEnergies SE share entitles its holder to an ownership interest in the business assets, in the sharing of profits and of liquidation surpluses, in proportion to the number of shares outstanding from time to time.

The net income for the financial year, after deduction of the overhead and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, constitutes the net profit.

From the said profit, reduced by the prior losses, if any, the following items are deducted in the indicated order:

1. 5% to constitute the legal reserve fund until the said fund reaches one-tenth of the share capital;

2. the amount set by the shareholders of TotalEnergies SE at a shareholders' meeting of TotalEnergies SE with a view to constitution of reserves of which it determines the allocation or the use; and

3. the amounts that the shareholders of TotalEnergies SE decide at a shareholders' meeting of TotalEnergies SE to carry forward. The remainder is paid to the shareholders of TotalEnergies SE as dividends.

The board of directors of TotalEnergies SE may pay out interim dividends.

The shareholders' meeting of TotalEnergies SE held to approve the financial statements for the financial year may decide to grant an option to each shareholder of TotalEnergies SE, with respect to all or part of the dividend or of the interim dividends, between payment of the dividend in cash and payment in shares of TotalEnergies SE.

The shareholders' meeting of TotalEnergies SE may decide at any time, but only on the basis of a proposal by the board of directors of TotalEnergies SE, to effect a complete or partial distribution of the amounts appearing in the reserve accounts, either in cash or in TotalEnergies shares.

***Voting rights***

Each TotalEnergies SE share entitles its holder to participate in shareholders' meetings of TotalEnergies SE, in any form whatsoever, subject to registering or recording its TotalEnergies shares under the conditions and within the time periods provided for by regulations in effect.

All shareholders of TotalEnergies SE may attend shareholders' meetings of TotalEnergies SE, irrespective of the number of TotalEnergies shares held. Any shareholder of TotalEnergies SE may vote by mail, by using a form conforming to applicable regulations.

Any shareholder of TotalEnergies SE may delegate voting authority at shareholders' meetings of TotalEnergies SE in accordance with the terms and conditions provided for by applicable regulations.

Legal entities that are shareholders of TotalEnergies SE take part in the meetings through their legal representatives or through any agent designated for that purpose.

Shareholders' meetings of TotalEnergies SE, whether ordinary, extraordinary or combined, make their decisions pursuant to the quorum and majority conditions applicable to the provisions governing the type of meeting, and they may exercise the powers attributed to them by law.

Subject to the following provisions, each shareholders' meeting member is entitled to as many votes as he possesses or as many TotalEnergies shares as he holds proxies for.

However, a double voting right is granted, in the light of the share of the share capital they represent, to all registered shares of TotalEnergies SE paid up in full that have been entered in the name of the same shareholder for at least two years, as well as, in case of a capital increase by incorporation of reserves, profits or premiums on shares, to the registered shares of TotalEnergies SE that are allocated without charge to a shareholder of TotalEnergies SE in connection with previously existing TotalEnergies shares for which he benefits from the said right. Any merger of TotalEnergies SE would have no effect on the double voting right, which may be exercised within the absorbing company, if the latter's articles of association have created a similar right.

The double voting right shall terminate automatically in respect of TotalEnergies shares that are converted to bearer form or are transferred. Nevertheless any transfer from registered share of TotalEnergies SE to registered share of TotalEnergies SE, due to inheritance *ab intestat* or testamentary inheritance, division of community property between spouses, or donation *inter vivos* to the benefit of the spouse or of relatives eligible to inherit shall not interrupt the period set above or shall retain the acquired right.

At shareholders' meetings of TotalEnergies SE, no shareholder of TotalEnergies SE may cast, by himself and through a proxy, in connection with the simple voting rights attached to the TotalEnergies shares he holds directly or indirectly and in connection with the powers of attorney granted to him, more than 10% of the total number of voting rights attributable to TotalEnergies shares. However, if he also holds, on an individual basis and/or as agent, double voting rights, the limit set in this way may be exceeded taking account solely of the additional voting rights resulting therefrom, without all of the voting rights that he exercises being able to exceed 20% of the total number of voting rights attributable to TotalEnergies shares.

BOARD OF DIRECTORS OF TOTALENERGIES SE

TotalEnergies SE is administered by a board of directors, the minimum and maximum number of members of which are defined by applicable law, as amended from time to time. The terms of office of the members of the board of directors are staggered to more evenly space the renewal of appointments and to ensure the continuity of the work of the board of directors and its committees.

The permanent representative of a legal person appointed as a director of TotalEnergies SE must be approved in advance by the board of directors of TotalEnergies SE. Such representatives must be less than 70 years old.

Each director of TotalEnergies SE must own at least 1,000 shares during his term of office.

The term of office for directors of TotalEnergies SE is set by the shareholders acting in an ordinary shareholders' meeting of TotalEnergies SE for a term of office not to exceed three years, subject to applicable law that may allow extension of the duration of a given term until the next ordinary shareholders' meeting of TotalEnergies SE held to approve the financial statements.

The number of directors of TotalEnergies SE acting in their own capacity or as permanent representatives of a legal entity that are aged more than 70 years old may not exceed one-third of the sitting directors of TotalEnergies SE as determined on the last day of each fiscal year. If this proportion is exceeded, the oldest member of the board of directors of TotalEnergies SE is automatically considered to have resigned.

When at the close of a financial year, the portion of capital owned by TotalEnergies SE's employees and those of the companies affiliated to it, as per article L. 225-180 of French commercial code, determined according to the provisions of article L. 225-102 of said code (after taking into account the registered shares held directly by employees and governed by article L. 22-10-59 of the French commercial code (formerly article L. 225-197-1), regardless of their grant date), represents more than 3%, a director of TotalEnergies SE is elected at the ordinary shareholders' meeting of TotalEnergies SE upon proposal of the shareholders referred to in article L. 225-102 of the French commercial code in accordance with the procedures provided by the applicable regulations and the articles of association.

When TotalEnergies SE satisfies the provisions of article L. 22-10-7 of the French commercial code (formerly article L. 225-27-1), the board of directors of TotalEnergies SE shall also include one or two directors of TotalEnergies SE representing employees.

A director representing employees is appointed by the central social and economic works council. When the number of directors of TotalEnergies SE appointed by the shareholders' meeting of TotalEnergies SE is greater than eight, a second director of TotalEnergies SE is appointed by the European Company committee.

REQUIREMENTS FOR AMENDMENTS *(Item 10.B.4)*

The rights of holders of TotalEnergies shares are set in the articles of association of TotalEnergies SE. The conditions upon which the articles of association of TotalEnergies can be amended are set in article L. 22-10-31 of the French commercial code (formerly article L. 225-96).

LIMITATIONS ON THE RIGHTS TO OWN SHARES (*Item 10.B.6*)

Not applicable.

PROVISIONS AFFECTING ANY CHANGE OF CONTROL *(Item 10.B.7)*

Not applicable.

DISCLOSURE OF INTERESTS IN TotalEnergies shares (*Item 10.B.8*)

TotalEnergies SE is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the shareholders' meetings of TotalEnergies SE.

In addition to obligations that shareholders of TotalEnergies SE may have to notify TotalEnergies SE upon crossing certain percentages of share ownership or voting rights pursuant to articles L. 233-7 *et seq*. of the French commercial code and 223-11 *et seq.* of the general regulations of the *Autorité des marchés financiers*, any person, whether a natural person or a legal entity, who comes to hold, directly or indirectly, 1% or more, or any multiple of 1%, of the share capital or the voting rights of TotalEnergies SE or of securities that may include future voting rights or future access to share capital or voting rights of TotalEnergies SE, is required to inform TotalEnergies SE by registered mail with return receipt requested, indicating the number of securities or voting rights of TotalEnergies SE held, within a period of 15 days from the date of crossing each of the said thresholds.

In determining the ownership or voting rights percentages provided for in the above paragraph, shares or voting rights of TotalEnergies SE held by controlled companies, as defined in article L. 233-3 of the French commercial code, must be included if applicable.

In the event of a failure to declare ownership of shares or voting rights of TotalEnergies SE as described above, any shares or voting rights of TotalEnergies SE exceeding the fraction that should have been declared may be deprived of voting rights at a shareholders' meeting of TotalEnergies SE if, at the meeting, the failure to declare ownership of such shares or voting rights of TotalEnergies SE has been noted and if one or several shareholders of TotalEnergies SE holding, collectively, at least 3% of capital or voting rights of TotalEnergies SE so request at such meeting.

Any natural person or legal entity is also required to inform TotalEnergies SE in the manner and within the time periods set forth above in the second paragraph above when his direct or indirect holdings fall below each of the applicable thresholds in said paragraph.

Article 19 of regulation (EU) 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) further requires persons discharging managerial responsibilities within TotalEnergies (and their persons closely associated) to notify TotalEnergies SE of transactions conducted on their own account in TotalEnergies shares or derivatives or certain financial instruments relating to TotalEnergies shares.

DIFFERENCES BETWEEN THE LAW OF DIFFERENT JURISDICTIONS (*Item 10.B.9*)

Not applicable.

CHANGES IN CAPITAL (*item 10.B.10*)

Not applicable.

REPURCHASE OF SHARES

For additional information on share buybacks, please refer to point 6.3 ("Share buybacks") of chapter 6 (starting on page 390) of the Universal Registration Document 2022, incorporated herein by reference.

# AMERICAN DEPOSITARY SHARES

(*Items 12.D.1 and 12.D.2*)

## GENERAL

The shares of TotalEnergies SE may be issued in the form of ADS. Each TotalEnergies ADS represents one share of TotalEnergies SE.

JPMorgan Chase Bank, N.A. is the depositary with respect to TotalEnergies ADS (the “Depositary”), which are evidenced by American depositary receipts (“ADR”). Each ADS represents an ownership interest in one TotalEnergies SE share deposited with the custodian, as agent of the depositary, under the amended and restated deposit agreement, dated November 12, 2014, and further amended on August 25, 2021, entered into between TotalEnergies SE, JPMorgan Chase Bank, N.A. and all holders, from time to time, of ADS issued pursuant to the deposit agreement (the “Deposit Agreement”).

The principal executive office of JPMorgan Chase Bank, N.A. is located at 383 Madison Avenue, Floor 11, New York, New York, 10179.

You may hold ADS either directly or indirectly through a broker or other financial institution. If you hold ADS directly, by having ADS registered in your name on the books of the depositary, you are an ADS holder. This description assumes you hold ADS directly. If you hold the ADS indirectly, you must rely on the procedures of your broker or other financial institution to assert your rights as an ADS holder described in this section. You should consult with your broker or financial institution to find out what those procedures are. Your ADS will be issued on the books of the depositary in book- entry form, in which case your ADS will be held through the Depositary’s direct registration system reflecting their ownership of these ADS. Your ADS will be evidenced by one ADR.

As an ADS holder, you will not be treated as one of TotalEnergies SE’s shareholders and you will not have shareholder rights. The Depositary or its nominee will be the holder of record of the TotalEnergies shares underlying your ADS. As an ADS holder, you will have ADS holder rights. The Deposit Agreement entered or to be entered into between TotalEnergies SE, the Depositary, you, as an ADS holder, and the other holders and beneficial owners of ADS sets out ADS holders’ rights as well as the rights and obligations of the Depositary. New York law governs the Deposit Agreement and the ADR. Because the Depositary or its nominee will actually be the record owner of the TotalEnergies shares, you must rely on it to exercise the rights of a shareholder of TotalEnergies SE on your behalf.

The following description is a summary of the material provisions of the Deposit Agreement. Because it is a summary, it does not contain all the information that may be important to you. For more complete information, you should read the entire form of Deposit Agreement form and the ADR form, which contain the terms of the ADS. Please refer to exhibit 99.A on Form F-6 (File No. 333-199737) filed with the Securities and Exchange Commission on October 31, 2014 and exhibit 99.A(2) on Post-Effective Amendment No.1 to Form F-6 (File No. 333-199737) filed with the Securities and Exchange Commission on July 30, 2021. Copies of the Deposit Agreement are also available for inspection at the offices of the Depositary and the custodian.

## DIVIDENDS AND OTHER DISTRIBUTIONS

***How will you receive dividends and other distributions on TotalEnergies shares?***

The Depositary has agreed to pay to you the cash dividends or other distributions it or the custodian receives on TotalEnergies shares, after converting any cash received into U.S. dollars, and, in all cases, deducting its fees and expenses and any taxes required to be withheld. You will receive these distributions in proportion to the number of TotalEnergies shares your ADS represent.

*Cash*. Whenever the Depositary or the custodian shall receive any cash dividend or other cash distribution by TotalEnergies SE, the Depositary shall, after any necessary conversion of such distribution into U.S. dollars pursuant to section 4.06 of the Deposit Agreement, and after fixing a record date pursuant to section 4.07 of the Deposit Agreement, promptly distribute to the extent practicable the amount thus received to any persons in whose names an ADR is registered on the books of the Depositary maintained for such purpose (an “Owner”) as of such record date in proportion to the number of ADS held by them on an averaged or other practicable basis, subject to such distribution being impermissible or impracticable with respect to certain Owners.

The Depositary shall make appropriate adjustments in the amounts so distributed in respect of any amounts withheld or requested to be withheld by TotalEnergies SE, the custodian or the Depositary from any such distribution on account of (i) taxes or other governmental charges or (ii) charges of the Depositary in the conversion of foreign currency into U.S. dollars pursuant to section 4.06 of the Deposit Agreement and any other charges of the Depositary pursuant to section 5.09 of the Deposit Agreement.

The Depositary shall distribute only such amount, however, as can be distributed without attributing to any Owner a fraction of one cent. Any such fractional amounts shall be withheld without liability and dealt with by the Depositary in accordance with its then current practices.

TotalEnergies SE or its agent will remit to the appropriate governmental agency in the Republic of France all amounts withheld and owing to such agency.

*Shares*. If any distribution upon any TotalEnergies SE share consists of a dividend in, or free distribution of, TotalEnergies shares, including pursuant to any program under which Owners may elect to receive cash or TotalEnergies shares, the Depositary may, upon TotalEnergies SE's prior consultation and approval, and shall if TotalEnergies SE requests so, distribute additional ADR evidencing whole ADS representing the amount of TotalEnergies shares received as such dividend or free distribution, and distribute to the Owners as of the record date fixed pursuant to section 4.07 of the Deposit Agreement, in proportion to the number of ADS held by them as of such date, additional ADS evidenced by one or more ADR, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of TotalEnergies shares and the issuance of ADR evidencing ADS, including the withholding of any tax or other governmental charge as provided in section 4.12 of the Deposit Agreement and the payment of fees of the Depositary as provided in section 5.09 of the Deposit Agreement.

In any case involving fractional ADS, the Depositary shall sell the amount of TotalEnergies shares represented by the aggregate of such fractions and distribute the net proceeds, all in the manner and subject to the conditions described in section 4.01 of the Deposit Agreement. If additional ADS are not so distributed or sold, each ADS shall thenceforth also represent the additional TotalEnergies shares distributed. Except as otherwise provided, TotalEnergies SE and the Depositary will not offer TotalEnergies shares to Owners unless a registration statement is in effect with respect to the securities represented by such TotalEnergies shares under the Securities Act of 1933, or the offer and sale of such TotalEnergies shares to Owners are exempt from registration under the provisions of such Act.

*Other than cash or shares*. Subject to the provisions of sections 4.12 and 5.09 of the Deposit Agreement, whenever the Depositary shall receive any distribution other than cash, TotalEnergies shares or rights upon any TotalEnergies SE share, the Depositary shall to the extent practicable cause the securities or property received by it to be distributed to the Owners as of the record date fixed pursuant to section 4.07 of the Deposit Agreement in proportion to the number of ADS held by them in any manner that the Depositary, after TotalEnergies SE's prior consultation if practicable, may deem equitable and practicable for accomplishing such distribution.

If, in the opinion of the Depositary, such distribution cannot be made proportionately among such Owners, or if for any other reason (including, but limited to, any requirement that TotalEnergies SE or the Depositary withhold an amount on account of taxes or other governmental charges or that such securities must be registered under the Securities Act of 1933 in order to be distributed to Owners or holders) the Depositary reasonably deems such distribution not to be feasible, the Depositary may, after TotalEnergies SE's consultation if practicable, adopt such method as it may deem equitable and practicable for the purpose of effecting such distribution (including, but not limited to, the public or private sale) of the securities or property thus received, or any part thereof, and the net proceeds of any such sale (net of the fees of the Depositary as provided in section 5.09 of the Deposit Agreement) shall be distributed by the Depositary to such Owners as in the case of a distribution received in cash.

***Charges of Depositary***

The Depositary may charge, and collect from, (i) each person to whom ADS are issued, including, without limitation, issuances against deposits of TotalEnergies shares, issuances in respect of distributions of shares, rights and other securities and/or property, issuances pursuant to a stock dividend or stock split declared by TotalEnergies SE, or issuances pursuant to a merger, exchange of securities or any other transaction or event affecting the ADS or deposited securities, and (ii) each person surrendering ADS for withdrawal of deposited securities or whose ADS are cancelled or reduced for any other reason, U.S.$5.00 for each 100 ADS (or portion thereof) issued, delivered, reduced, cancelled or surrendered (as the case may be).

The Depositary may sell (by public or private sale) sufficient securities and property received in respect of distributions of shares, rights and other securities and/or property prior to such deposit to pay such charge. The following additional charges shall be incurred by the Owners, by any party depositing or withdrawing TotalEnergies shares or by any party surrendering ADS, to whom ADS are issued (including, without limitation, issuances pursuant to a stock dividend or stock split declared by TotalEnergies SE or an exchange of stock regarding the ADS or the deposited securities or a distribution of ADS pursuant to section 4 of the Deposit Agreement, whichever is applicable) (i) a fee of U.S.$0.05 or less per ADS for any cash distribution made pursuant to the Deposit Agreement, (ii) a fee of U.S.$1.50 per one or more ADR for transfers made pursuant to section 2.04 of the Deposit Agreement, (iii) a fee for the distribution or sale of securities pursuant to section 4 of the Deposit Agreement, such fee being in an amount equal to the fee for the execution and delivery of ADS referred to above which would have been charged as a result of the deposit of such securities but which securities or the net cash proceeds from the sale thereof are instead distributed by the Depositary to Owners entitled thereto, (iv) fees, charges and expenses of the Depositary in connection with the conversion of foreign currency into U.S. dollars (which are paid out of such foreign currency).

Additionally, to facilitate the administration of various depositary receipt transactions, including disbursement of dividends or other cash distributions and other corporate actions, the Depositary may engage the foreign exchange desk within JPMorgan Chase Bank, N.A. and/or its affiliates in order to enter into spot foreign exchange transactions to convert foreign currency into U.S. dollars (“FX Transactions”). For certain currencies, FX Transactions are entered into with JPMorgan Chase Bank, N.A or an affiliate, as the case may be, acting in a principal capacity. For other currencies, FX Transactions are routed directly to and managed by an unaffiliated local custodian (or other third party local liquidity provider), and neither JPMorgan Chase Bank, N.A nor any of its affiliates is a party to such FX Transactions.

The foreign exchange rate applied to an FX Transaction will be either (a) a published benchmark rate, or (b) a rate determined by a third party local liquidity provider, in each case plus or minus a spread, as applicable. The Depositary will disclose which foreign exchange rate and spread, if any, apply to such currency on the “Disclosure” page (or successor page) of www.adr.com. Such applicable foreign exchange rate and spread may (and neither the Depositary, JPMorgan Chase Bank, N.A nor any of their affiliates is under any obligation to ensure that such rate does not) differ from rates and spreads at which comparable transactions are entered into with other customers or the range of foreign exchange rates and spreads at which JPMorgan Chase Bank, N.A or any of its affiliates enters into foreign exchange transactions in the relevant currency pair on the date of the FX Transaction. Additionally, the timing of execution of an FX Transaction varies according to local market dynamics, which may include regulatory requirements, market hours and liquidity in the foreign exchange market or other factors. Furthermore, JPMorgan Chase Bank, N.A and its affiliates may manage the associated risks of their position in the market in a manner they deem appropriate without regard to the impact of such activities on TotalEnergies SE, the Depositary, Owners or beneficial owners of ADSs. The spread applied does not reflect any gains or losses that may be earned or incurred by JPMorgan Chase Bank, N.A and its affiliates as a result of risk management or other hedging related activity.

Notwithstanding the foregoing, to the extent TotalEnergies SE provides U.S. dollars to the Depositary, neither JPMorgan Chase Bank, N.A nor any of its affiliates will execute an FX Transaction as set forth herein. In such case, the Depositary will distribute the U.S. dollars received from TotalEnergies SE.

VOTING RIGHTS

***How do you vote?***

Upon receipt of notice of any meeting or solicitation of consents or proxies of holders of TotalEnergies shares, the Depositary shall, as soon as practicable thereafter, send to the Owners:

(a) such information as is contained in the notice of such meeting and any solicitation material sent by TotalEnergies SE to the Depositary pursuant to section 5.06 of the Deposit Agreement;

(b) a statement that the Owners of ADR as of the close of business on a record date established by the Depositary pursuant to section 4.07 of the Deposit Agreement will be entitled, subject to any applicable provisions of French law, the articles of association of TotalEnergies SE and TotalEnergies shares (which provisions, if any, including any applicable provisions relating to double voting rights, shall be summarized in writing by TotalEnergies SE and then summarized in pertinent part in such statement), to instruct the Depositary as to the exercise of the voting rights, if any, pertaining to the TotalEnergies shares represented by such Owner's ADS;

(c) summaries prepared by TotalEnergies SE in English of any materials or other documents provided by TotalEnergies SE for the purpose of enabling such owner to exercise such voting rights; and

(d) a statement as to the manner in which such instructions may be given to the Depositary (including, without limitation, any blocking requirements), including a statement as to the manner in which TotalEnergies shares with respect to which the Depositary does not receive properly completed voting instructions or receives a blank proxy will be voted, and setting forth the date established by the Depositary for the receipt of such instructions (the "Receipt Date").

In accordance with French law and the articles of association of TotalEnergies SE, TotalEnergies shares that have been registered in the name of the same holder for at least two years will be entitled to double voting rights. Similarly ADS that have been held by the same Owner for two years or more and representing TotalEnergies shares held in registered form for two years or more will be entitled to double voting rights. **No other ADS will be entitled to double voting rights**. Therefore, in order to be eligible for double voting rights, each holder of ADS must (i) request that the Depositary hold TotalEnergies shares in registered form as provided in section 2.02 of the Deposit Agreement and (ii) hold the ADR in registered form for two consecutive years (*i.e.*, registered in the name of such holder in the books of the Depositary). Voting rights may be exercised only in respect of one whole ADS or integral multiples thereof (subject to appropriate proportional adjustment in the event of a stock split, reclassification or other similar event).

Upon actual receipt by the ADR Department of the Depositary of properly completed voting instructions, from an Owner on such record date in the manner and on or before the time established by the Depositary for such purpose, the Depositary shall endeavor, insofar as practicable and permitted under any applicable provisions of French law, the articles of association of TotalEnergies SE and TotalEnergies shares, to vote or cause to be voted TotalEnergies shares in accordance with such instructions. The Depositary shall not itself exercise any voting discretion in respect of any TotalEnergies shares. If the Depositary timely receives a signed voting instruction card from an Owner which fails to specify the manner in which the Depositary is to vote the TotalEnergies shares represented by such Owner's ADS on one or more matters at a meeting, to the extent not prohibited by applicable law, rule or regulation, such voting instruction card shall constitute a procuration *en blanc* and shall be counted as a vote in favor of resolutions approved by the board of directors of TotalEnergies SE. TotalEnergies shares represented by ADS for which an executed voting instruction card was not timely received by the Depositary shall not be voted.

Notwithstanding anything in the Deposit Agreement to the contrary, the Depositary and TotalEnergies SE may modify or amend the above voting procedures or adopt additional voting procedures from time to time as they determine may be necessary or appropriate to comply with French or United States law or TotalEnergies SE's articles of association.

Voting instructions will not be deemed received until such time as the ADR Department responsible for proxies and voting has received such instructions notwithstanding that such instructions may have been physically received by JPMorgan Chase Bank, N.A., as Depositary, prior to such time.

***Reports***

The Depositary shall make available for inspection by Owners at its transfer office any reports and written communications, including any proxy solicitation material, received from TotalEnergies SE which are both (a) received by the custodian or its nominee as the holder of TotalEnergies shares and (b) made generally available to the holders of such TotalEnergies shares by TotalEnergies SE.

The Depositary shall also send to the Owners copies of such reports and communications (or English translations or summaries thereof) when furnished by TotalEnergies SE pursuant to section 5.06. Any such reports and communications, including any such proxy solicitation material, furnished to the Depositary by TotalEnergies SE will be furnished in French, unless TotalEnergies SE determines in its discretion to furnish such materials or any of them in English. The Depositary shall have no obligation to translate into English or any other language any documents provided by, for or on behalf of TotalEnergies SE.

TotalEnergies SE is subject to the periodic reporting requirements of the Securities Exchange Act of 1934 and, accordingly, files certain reports with the Securities and Exchange Commission (hereinafter called the “Commission”). Such reports and communications will be available for inspection and copying at the public reference facilities maintained by the Commission located at 100 F Street, N.E., Washington, D.C. 20549.

***Lists of Owners***

Promptly upon written request by TotalEnergies SE, the Depositary shall furnish TotalEnergies SE with a list, as of a recent date, of the names, addresses and holdings of ADS by all persons in whose names ADR are registered on the transfer books of the Depositary.

***Notices and Reports***

On or before the first date on which TotalEnergies SE makes any communication available to holders of TotalEnergies shares or any securities regulatory authority or stock exchange, by publication or otherwise, including without limitation a notice of any meeting of holders of TotalEnergies shares, or of any adjourned meeting of such holders, or of the taking of any action in respect of any cash or other distributions or the offering of any rights, TotalEnergies SE agrees to transmit to the Depositary or custodians a copy of such communication in English in the form given or to be given to holders of TotalEnergies shares, or with an English translation or summary.

Without limiting the generality of the foregoing, TotalEnergies SE shall furnish to the Depositary, or otherwise make publicly available, in English annual reports (including audited consolidated financial statements), semi-annual reports (including unaudited interim consolidated financial statements), and summaries in English of notices of shareholders’ meetings and other reports and communications that are made generally available by TotalEnergies SE to holders of TotalEnergies shares.

If requested in writing by TotalEnergies SE, the Depositary will arrange for the distribution of one or more of the above-referenced reports and summaries to all Owners. TotalEnergies SE will timely provide the Depositary with such quantity of such reports and summaries as shall be requested by the Depositary from time to time in order for the Depositary to effect such distributions.

***Transfer Books by the Depositary***

Until termination of the Deposit Agreement in accordance with its terms, the Depositary or its agent shall maintain, at a designated transfer office facilities for the execution, delivery and surrender of ADR in accordance with the provisions of the Deposit Agreement and a register for the registration, registration of transfer, combination and split-up of ADR which, in the case of Direct Registration ADR, shall include the Direct Registration System (the system administered by DTC pursuant to which the Depositary may register the ownership of uncertificated ADRs, which ownership shall be evidenced by periodic statements issued by the Depositary to the Owners entitled thereto). Such register shall at all reasonable times be open for inspection by the Owners and TotalEnergies SE; provided, however, that such inspection shall not be for the purpose of communicating with Owners in the interest of a business or object other than the business of TotalEnergies SE or a matter related to the Deposit Agreement or the ADR.

The Depositary may close the issuance and cancellation books, at any time or from time to time, when it deems expedient in connection with the performance of its duties hereunder or when reasonably requested by TotalEnergies SE solely in order to enable TotalEnergies SE to comply with applicable law.

***How are ADS issued?***

The Depositary will issue ADS if you or your broker deposits TotalEnergies shares or evidence of rights to receive TotalEnergies shares with the custodian and pays fees and expenses and any taxes or charges, such as share transfer registration fees owing to the Depositary under the Deposit Agreement. TotalEnergies shares deposited with the custodian must be accompanied by certain delivery documentation, including documentation showing confirmation of the book-entry transfer and recordation of the TotalEnergies shares to the custodian or that such irrevocable instructions have been given and any necessary governmental approvals have been obtained. Upon each deposit of TotalEnergies shares, receipt of related delivery documentation and compliance with the other provisions of the Deposit Agreement, including the payment of the fees and charges of the depositary and any taxes or other fees or charges owing, the Depositary will issue ADS in the name or upon the order of the person entitled thereto.

The Depositary will carry out all necessary procedures so that at any given time the number of TotalEnergies shares representing ADS that are entitled to double voting rights under French Company law and the articles of association of TotalEnergies SE is equal to the equivalent number of ADS that would be entitled to double voting rights in accordance with section 4.08 of the Deposit Agreement. For purposes of determining whether ADS are entitled to double voting rights, upon a sale or other disposition of ADS by an Owner, unless otherwise specified by such Owner, the Depositary shall presume that the most recently registered ADS are being sold or otherwise disposed of by such Owner.

All of the ADS issued will be part of the Depositary's direct registration system, and a registered holder will receive periodic statements from the Depositary which will show the number of ADS registered in such holder's name. An ADS holder can request that the ADS not be held through the Depositary's direct registration system and that an ADR be issued. The custodian will not accept a deposit of fractional TotalEnergies shares or a number of TotalEnergies shares which would give rise to fractional ADS.

The custodian will hold all TotalEnergies shares for the account of the Depositary. ADS holders thus have no direct ownership interest in TotalEnergies shares and only have such rights as are contained in the Deposit Agreement. The custodian will also hold any additional securities, property and cash received on or in substitution for the deposited shares. TotalEnergies SE's deposited shares and any such additional items are referred to as "deposited securities".

***Requirements for depositary actions***

Before the Depositary will issue, execute and deliver, register, register the transfer, split-up, combine or return any ADR, deliver any distribution thereon, or withdraw any deposited securities, the Depositary may require:

- payment of share transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any deposited securities;
- satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and
- compliance with any laws or governmental regulations, or such reasonable regulations that the Depositary and TotalEnergies SE may establish consistent with the Deposit Agreement.

The delivery of ADR against deposits of TotalEnergies shares generally or against deposits of particular TotalEnergies shares may be suspended and the transfer of ADR may be refused or the registration of transfer, split-up or combination of outstanding ADR may be suspended, generally or in particular instances, (i) during any period when the transfer books of the Depositary or any register for deposited securities are closed, or (ii) if any such action is deemed necessary or advisable by the Depositary or TotalEnergies SE at any time or from time to time because of any requirement of law or of any government or governmental body or commission, or under any provision of the Deposit Agreement.

The surrender of outstanding ADR and withdrawal of deposited securities may not be suspended subject only to (i) temporary delays caused by closing the transfer books of the Depositary or TotalEnergies SE or the deposit of TotalEnergies shares in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the ADR or to the withdrawal of the deposited securities, and (iv) any other circumstances specifically contemplated by Section IA(1) of the General Instructions to the Registration Statement on Form F-6, as amended from time to time, under the Securities Act of 1933.

RECLASSIFICATION, RECAPITALIZATION AND MERGERS

The Depositary may, in its discretion, and shall if requested by TotalEnergies SE, amend the form of ADR or distribute additional or amended ADR (with or without calling the ADR for exchange) or cash, securities or property on the record date set by the Depositary therefor to reflect any change in par value, split-up, consolidation, cancellation or other reclassification of deposited securities, any share distribution or distribution of other securities or property not distributed to Owners or any cash, securities or property available to the Depositary in respect of deposited securities from (and the Depositary is hereby authorized to surrender any deposited securities to any person and, irrespective of whether such deposited securities are surrendered or otherwise cancelled by operation of law, rule, regulation or otherwise, to sell by public or private sale any property received in connection with) any recapitalization, reorganization, merger, consolidation, liquidation, receivership, bankruptcy or sale of all or substantially all the assets of TotalEnergies SE, and to the extent the Depositary does not so amend the form of ADR or make a distribution to Owners to reflect any of the foregoing, or the net proceeds thereof, whatever cash, securities or property results from any of the foregoing shall constitute deposited securities and each ADS evidenced by the ADR shall automatically represent its pro rata interest in the deposited securities as then constituted.

Promptly upon the occurrence of any of the aforementioned changes affecting deposited securities, TotalEnergies SE shall notify the Depositary in writing of such occurrence and as soon as practicable after receipt of such notice from TotalEnergies SE, may instruct the Depositary to give notice thereof, at TotalEnergies SE's expense, to Owners in accordance with the provisions of the Deposit Agreement. Upon receipt of such instruction, the Depositary shall give notice to the Owners in accordance with the terms of the Deposit Agreement, as soon as reasonably practicable.

AMENDMENT AND TERMINATION

***How may the Deposit Agreement be amended?***

The form of the ADR and any provisions of the Deposit Agreement may at any time and from time to time be amended or supplemented by agreement in writing between TotalEnergies SE and the Depositary without the consent of the Owners in any respect which they may deem necessary or desirable.

Any amendment or supplement which shall impose or increase any fees or charges (other than taxes and other governmental charges, transfer or registration fees, cable, telex, or facsimile transmission costs, deliver costs or other such expenses), or which shall otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding ADR until the expiration of 30 days after notice of such amendment shall have been given to the Owners of outstanding ADR. Every Owner at the time any amendment so becomes effective, if such Owner shall have been given such notice, shall be deemed, by continuing to hold such ADR, to consent and agree to such amendment and to be bound by the Deposit Agreement as amended thereby.

In no event shall any amendment impair the right of the Owner of any ADR to surrender such ADR and receive therefor the deposited securities represented thereby, except in order to comply with mandatory provisions of applicable law.

Any amendments or supplements which (i) are reasonably necessary (as agreed between TotalEnergies SE and the Depositary) in order for (a) the ADS to be registered on Form F-6 under the Securities Act of 1933 or (b) the ADS or TotalEnergies shares to be traded solely in electronic book-entry form and (ii) do not in either such case impose or increase any fees or charges to be borne by Owners, shall be deemed not to prejudice any substantial rights of Owners.

***How may the Deposit Agreement be terminated?***

The Depositary shall at any time at the direction of TotalEnergies SE terminate the Deposit Agreement by mailing notice of such termination to the Owners of all ADR then outstanding at least 30 days prior to the date fixed in such notice for such termination. The Depositary may likewise terminate the Deposit Agreement by mailing notice of such termination to TotalEnergies SE and the Owners of all ADR then outstanding if at any time 150 days after the Depositary shall have delivered to TotalEnergies SE a written notice of its resignation, a successor depositary shall not have been appointed and accepted its appointment as provided in section 5.04 of the Deposit Agreement.

The Depositary shall mail notice of such termination to the Owners of all ADR then outstanding at least 30 days prior to the date fixed in such notice for such termination. On and after the date of termination, each Owner shall, upon (i) surrender of each of its ADR at the Depositary's transfer office, (ii) payment of the fees of the Depositary for the surrender of ADR provided herein and (iii) payment of any applicable taxes and governmental charges, be entitled to delivery, to him or upon his order, of the amount of deposited securities represented by such ADR. If any ADR shall remain outstanding after the date of termination, the Depositary and its agents thereafter shall discontinue the registration of transfers of ADR, shall suspend the distribution of dividends to the Owners thereof, and shall not give any further notices or perform any further acts under the Deposit Agreement and the ADR, except that the Depositary shall continue to receive and hold (or sell) dividends and other distributions pertaining to deposited securities, and shall continue to deliver deposited securities, together with any dividends or other distributions received with respect thereto and/or the net proceeds of the sale of any rights or other property, in exchange for ADR surrendered to the Depositary (after deducting, in each case, the fee of the Depositary for the surrender of an ADR, any expenses for the account of the Owner of such ADR in accordance with the terms and conditions of the Deposit Agreement, and any applicable taxes or governmental charges).

At any time after the expiration of six months from the date of termination, the Depositary may sell the deposited securities then held hereunder and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, in a segregated account and without liability for interest, for the pro rata benefit of the Owners which have not theretofore surrendered their ADR.

LIMITATION ON OBLIGATIONS AND LIABILITY TO ADR HOLDERS

Neither the Depositary nor TotalEnergies SE nor any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) shall incur any liability, if by reason of any provision of any present or future law, rule, regulation, fiat, order or decree of the United States, the Republic of France or any other country, or of any governmental or regulatory authority or stock exchange or market or automated quotation system, or by reason of any provision, present or future, of the articles of association of TotalEnergies SE or the deposited securities, or by reason of any act of God or war or terrorism, nationalization or other circumstances beyond their control, the Depositary or TotalEnergies SE or any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) shall be prevented or forbidden from or be subject to any civil or criminal penalty on account of doing or performing any act or thing which by the terms of the Deposit Agreement it is provided shall be done or performed; nor shall the Depositary or TotalEnergies SE or any of their respective directors, employees, agents or controlling persons (as defined under the Securities Act of 1933) incur any liability by reason of any non-performance or delay, caused as aforesaid, in the performance of any act or thing which by the terms of the Deposit Agreement it is provided shall or may be done or performed, or by reason of any exercise of, or failure to exercise, any discretion provided for in the Deposit Agreement or the ADR.

BOOKS OF DEPOSITARY

Promptly upon written request by TotalEnergies SE, the Depositary shall furnish TotalEnergies SE with a list, as of a recent date, of the names, addresses and holdings of ADS by all persons in whose names ADR are registered on the transfer books of the Depositary.

**EXHIBIT 12.1**

## CERTIFICATIONS

I, Patrick Pouyanné, certify that:

1. I have reviewed this annual report on Form 20-F of TotalEnergies SE;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date:March 24, 2023

By: /s/ Patrick Pouyanné

Name: Patrick Pouyanné

Title: Chairman and Chief Executive Officer

**EXHIBIT 12.2**

**CERTIFICATIONS**

I, Jean-Pierre Sbraire, certify that:

1. I have reviewed this annual report on Form 20-F of TotalEnergies SE;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 24, 2023

By: /s/ Jean-Pierre Sbraire

Name: Jean-Pierre Sbraire

Title: Chief Financial Officer

**EXHIBIT 13.1**

**CERTIFICATIONS**

Pursuant to 18 U.S.C. § 1350, the undersigned officer of TotalEnergies SE, a European company incorporated under the laws of the Republic of France (“TotalEnergies”), hereby certifies, to such officer’s knowledge, that TotalEnergies’ Annual Report on Form 20-F for the year ended December 31, 2022 (the “Report”), fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of TotalEnergies.

Date: March 24, 2023

By: /s/ Patrick Pouyanné

Name: Patrick Pouyanné
Title: Chairman and Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

**EXHIBIT 13.2**

**CERTIFICATIONS**

Pursuant to 18 U.S.C. § 1350, the undersigned officer of TotalEnergies SE, a European company incorporated under the laws of the Republic of France ("TotalEnergies"), hereby certifies, to such officer's knowledge, that TotalEnergies' Annual Report on Form 20-F for the year ended December 31, 2022 (the "Report"), fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of TotalEnergies.

Date:March 24, 2023

By: /s/ Jean-Pierre Sbraire
Name: Jean-Pierre Sbraire
Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 15.1 contains the excerpts of the pages and section of TotalEnergies SE's Universal Registration Document 2022 that are incorporated by reference into the Annual Report on Form 20-F[1]. References in Exhibit 15.1 to TotalEnergies' Consolidated Financial Statements presented in chapter 8 are to TotalEnergies Consolidated Financial Statements presented beginning on page F-7 of this Annual Report.

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(1) Where information has been deleted from TotalEnergies SE's Universal Registration Document 2022, such deletion is indicated in this exhibit with a notation that such information has been redacted.

# Contents

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

# 1

# Presentation of the Company – Integrated report

# 1.1 TotalEnergies at a glance

## 1.1.1 A multi-energy company

TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to energy that is more affordable, cleaner, more reliable and accessible to as many people as possible. Active in close to 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people.

### VALUES ANCHORED IN OUR DAILY ACTIVITIES

Safety, Respect for Each Other, Pioneer Spirit, Stand Together and Performance-Minded are what drive us. These values guide daily the actions and relations of the Company with its stakeholders.

These five strong values also require all of TotalEnergies' employees to behave in an exemplary manner. Priority is given to safety, security, health, the environment, integrity in all its forms (including the fight against corruption, fraud and anti-competitive practices) and human rights.

It is through the strict adherence of our employees to these values and to this course of action that our Company intends to build strong and sustainable growth for ourselves and for all of our stakeholders.

In this way, we deliver on our commitment to better energy.

### OUR PROFILE

**Our employees**

Employees breakdown by geographical area


Workforce as of December 31, 2022: 101,279

Employees breakdown by gender

36.3% Women

63.7% Men

**Proven expertise in 2022**
- **101,279** employees
- Nearly **160 nationalities**
- More than **740 business-related competencies**
- **470,000 days** of training
- More than **400 talent developers** to help employees along their professional development path

**Employees in 2022**
- **$9.0 billion** payroll (including social security charges)
- **€163 M** for training
- **92.1%** of employees on permanent contracts, and women account for **42.1%** of employees hired on permanent contracts
- **83.4%** of employees hired by the Company and **62.7%** of managers hired were non-French nationals

**Our shareholders**

Shareholding structure by ideological area (1)

Estimate as of December 31, 2022, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.


Shareholding structure by shareholder type

Estimate as of December 31, 2022, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.

13.6% Individual shareholders

6.8% Company employees (2)

74.4% Institutional shareholders

5.2% Treasury shares

Approximately 1,500,000 Number of individual shareholders

(1) Excluding treasury shares.

(2) On the basis of employee shareholding as defined in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Association of the Corporation.

Our climate ambition : **NET ZERO EMISSIONS BY2050, together with society**

## 2022 KEY FIGURES

### Financial indicators[1]

**$36.2 billion**
Adjusted net income (TotalEnergies share)

**$20.5 billion**
Net income (TotalEnergies share)

**32.5%**
Return on equity (ROE)

**28.2%**
Return on average capital employed (ROACE)

**$47.0 billion**
Operating cash flow before working capital changes w/o financial charges (DACF)

**€2.81 +€1**
Ordinary and special dividend per share for the fiscal year 2022[2]

**7.0%**
Gearing ratio[3]

**$16.3 billion**
Net investment including **4 G$** in low-carbon energies

**$23.2/boe**
Pre-dividend organic cash breakeven

### Non-financial indicators

**Greenhouse gas (GHG) emissions Scope 1+2 of operated facilities** *(Mt $CO_2e$)*

| 2020 | 2021 | **2022** |
|---|---|---|
| 41* | 37* | **40** |

* Excluding the COVID-19 effect.

**Total recordable injury rate**

| | |
|---|---|
| **2022** | **0.67** |
| 2021 | 0.73 |
| 2020 | 0.74 |

**Share of women among senior executives** *(%)*

| 2020 | 2021 | **2022** |
|---|---|---|
| 25.7 | 26.5 | **27.5** |

**Share of non-French nationals among senior executives** *(%)*

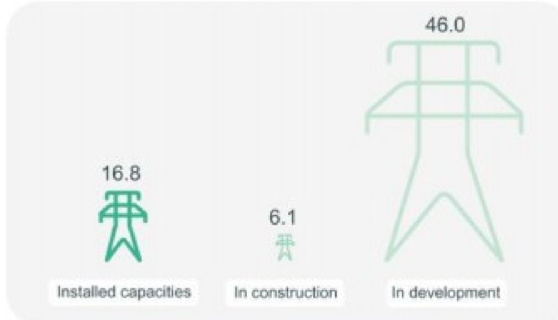
| 2020 | 2021 | **2022** |
|---|---|---|
| 36.3 | 36.6 | **37.4** |

(1) For a definition of the alternative performance indicators, refer to point 1.10.1 of this chapter and to Note 3 to the Consolidated Financial Statements (point 8.7 of chapter 8).
(2) 2.81 euros per share ordinary dividend + 1.00 euro per share special dividend, subject to approval by the Shareholders' Meeting on May 26, 2023.
(3) Excluding leases; 12.7% including leases.

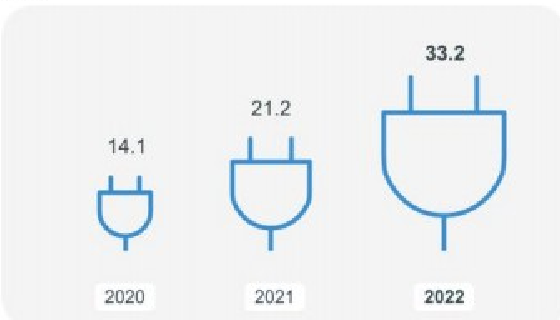
## OUR OPERATIONAL PERFORMANCE

**Gross installed power generation capacities[1]**
*(GW)*


**Portfolio of gross renewable power generation capacities at year-end 2022[2]** *(GW)*



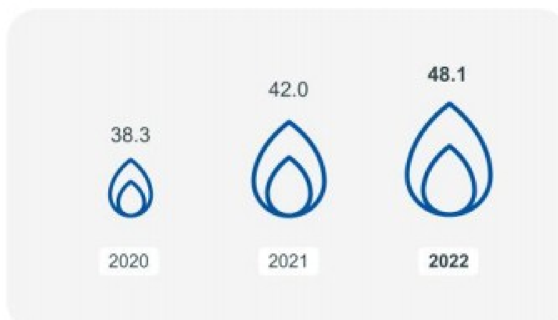

**Net power production[4]**
*(TWh)*



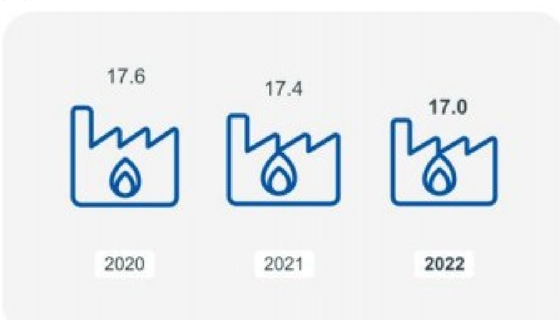

**Power sales - number of BtB and BtC client sites**
*(millions)*


**Gas sales - number of BtB and BtC client sites**
*(millions)*


**LNG sales volumes**
*(Mt)*



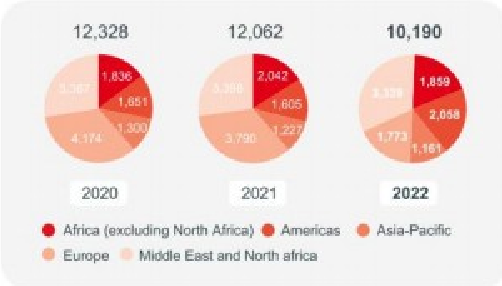

**LNG production**
*(Mt)*



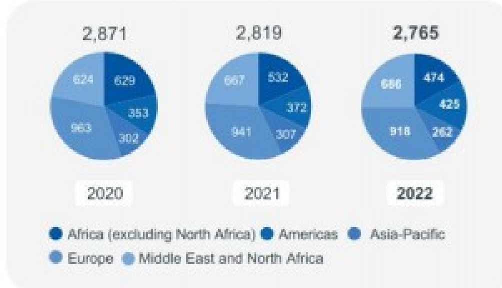

(1) Excluding combined-cycle gas plant in Taweelah, United Arab Emirates.
(2) Including 20% of Adani Green Energy Ltd gross capacity effective first quarter 2021 and including 50% of Clearway Energy Group effective third quarter 2022.
(3) Including the cogeneration units in the Normandy and Antwerp refineries.
(4) Solar, wind, hydroelectric and gas plants.

## OUR OPERATIONAL PERFORMANCE

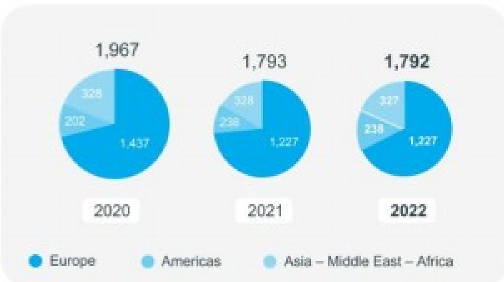
**Hydrocarbon proved reserves[(1)] by geographic areas**
*(Mboe)*



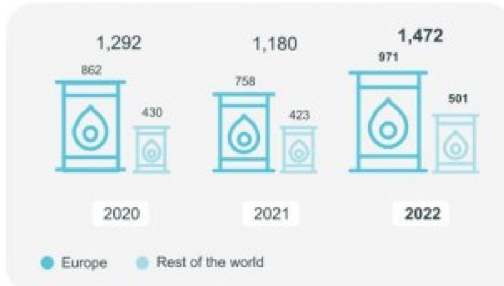

**Hydrocarbon production by geographic area**
*(kboe/d)*



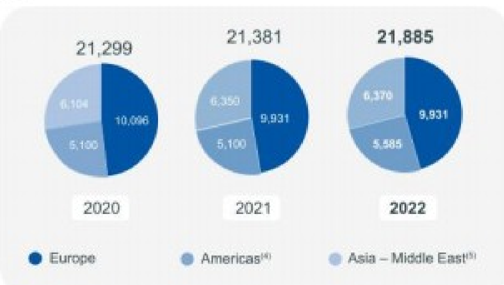

**Crude oil refining capacity[(2)]**
*(kb/d)*



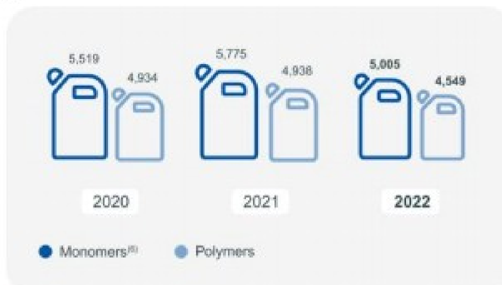

**Refinery throughput[(3)]**
*(kb/d)*



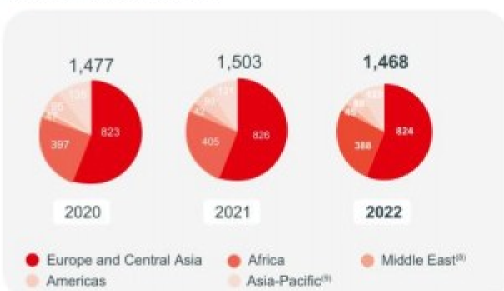

**Petrochemical production capacity by geographic area**
*(kt)*




**Petrochemical products production volume**
*(kt)*




**Marketing & Services[(7)] petroleum product sales by geographic area** *(kb/d)*




**Production of biofuels**
*(kt)*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(1) Based on SEC rules (Brent at $101.24/b in 2022, $69.23/b in 2021 and $41.32/b in 2020).
(2) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(3) Includes refineries in Africa that are reported in the Marketing & Services segment.
(4) Including 50% of the joint venture between TotalEnergies and Borealis.
(5) Including interests in Qatar, 50% of the capacities of Hanwha TotalEnergies Petrochemical Co. Limited and 37.5% of SATORP in Saudi Arabia.
(6) Olefins.
(7) Excluding trading and bulk refining sales.
(8) Including Turkey.
(9) Including Indian Ocean islands.

## 1.1.2 Our history: an energy transition in progress

The Company was founded on March 28, 1924. Historic player in energy it discovered major fields worldwide and developed an ever-growing number of advanced products and services, created in its refineries and marketed through its retail network. The Company has gradually diversified its activities and broadened its presence around the world. We have positioned ourselves in the gas, refining, petrochemical and petroleum product distribution segments. We have begun a transition towards renewable energies: solar, sustainable biofuels and electricity, mostly from renewable sources.

**1920**

**Creation in Brussels of the Compagnie Financière belge des Pétroles, known as PetroFina.**

**1924**

**Creation of the Compagnie française des Pétroles (CFP)**
On September 20, 1923, the French President of the Council Raymond Poincaré entrusts an important mission to Ernest Mercier: create a «tool capable of carrying out a national oil policy». Six months later, the Compagnie française des Pétroles is born on March 28, 1924.

**1925**

**The IPC is awarded a 75-year concession on March 14.**

**1927**

**Initial discovery at the Kirkuk field in Iraq**
CFP makes its first discovery, under an agreement with the government of Iraq. Oil rises to the surface in Kirkuk, a field with considerable reserves. This marks the beginning of TOTAL's adventure in the Middle East.

**1929**

CFP shares are **first traded on the Paris Stock Exchange.**

**1933**

**Start of production of the Gonfreville refinery** in Normandy (France), with an annual capacity of 900,000 tons of crude oil.

**1939**

**Discovery of the Saint-Marcet gas field, the first hydrocarbon reserves found in France**
Creation of Régie Autonome des Pétroles (RAP), which later becomes the Elf Group, to explore a vast area around Saint Gaudens.

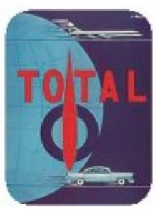
**1941**

**Creation of Société nationale des pétroles d'Aquitaine (SNPA).**

**1951**

**SNPA discovers the Lacq gas field in France**
The gas rises from a depth of 3,450 meters at extremely high pressure. The specialist crews take five days and four nights to harness the eruption. Lacq is later found to be a gigantic natural gas field containing some 262 billion cubic meters.

**1954**




**Launch of the TOTAL brand by CFP**
At the beginning of the 1950s, the leaders of CFP and CFR (Compagnie Française de Raffinage) decide to create their own distribution network, and a brand for it. The new TOTAL brand and logo are adopted in 1954.

**1956**

**Discovery of the Edjeleh, Hassi R'Mel (gas) and Hassi Messaoud (oil) fields in the Algerian Sahara**
The exploration campaigns that SN Repal and CFP-A had initiated in 1946 result in the discovery, in 1956, of huge oil fields in Edjeleh and Hassi Messaoud and gas reserves in Hassi R'Mel.

**1958**

**First offshore well on Umm Shaif (Abu Dhabi).**

**1961**

**Discovery of the first offshore fields in Gabon**
The Anguille field is the first one found.

**1967**


**Launch of the Elf brand**
A countrywide campaign, "Red circles are coming" introduces France to the Elf brand starting on the night of April 27, 1967.

**1970**

**Elf takes control of Antar.**

**TOTAL takes a permit in Indonesia,** and goes on to find the Bekapai field in 1972 and the gigantic Handil field in 1974.

## 1971

**The Ekofisk field in the North Sea starts production.**

## 1974

**The Group acquires Hutchinson-Mapa,** a specialist in rubber processing.

## 1976

**Creation of Société nationale Elf Aquitaine (SNEA), the merger of ERAP and SNPA.**

## 1983

**Birth of the company Atochem, an SNEA subsidiary,** the merger of ATO Chimie, Chloé Chimie and part of Péchiney Ugine Kuhlmann.

## 1991

**CFP, which had become Total-CFP in 1985, becomes TOTAL.**

## 2000

**Following the merger of Fina in 1999, TOTAL acquires Elf Aquitaine**
The new Group is called TotalFinaElf and is the world's fourth largest oil major.

## 2001

**The Girassol field on Block 17 in Angola starts production.**

## 2003

**TotalFinaElf changes its name to TOTAL.**

## 2011

**Investment in the solar energy sector with the acquisition of 60% of the US company SunPower**
On June 15, 2011, TOTAL and SunPower Corp. announce the success of TOTAL's friendly tender on SunPower to create a new global leader in the solar industry.


## 2016

**Acquisition of Saft Groupe**
On July 18, 2016, TOTAL acquires Saft Groupe, a world leading designer and manufacturer of advanced technology batteries for industry, complementing its portfolio with electricity storage solutions, a key component of the future growth of renewable energies.

**Acquisition of Lampiris in Belgium.**

## 2017

**Launch of Total Spring in France.**

## 2018

**Acquisition of Direct Energie**
On July 6, 2018, TOTAL announces the completion of the acquisition of Direct Energie and the launch of a tender offer on the company. This operation enables the Group to accelerate its integration downstream along the full gas and power value chain and to reach critical mass in the French and Belgium markets, where it is growing fast.

**TOTAL acquires Engie's LNG business and becomes the world's number-two liquefied natural gas player.**

**TOTAL acquires exploration and production company Mærsk Oil & Gas A/S** in a share and debt transaction. This acquisition makes TOTAL the second largest operator in the offshore North Sea.

## 2019

**Acquisition of 26.5% in the Mozambique LNG project**
This acquisition stems from an agreement with Occidental to acquire Anadarko's assets in Africa, and expands TOTAL's position in liquefied natural gas.

## 2020

**TOTAL states its new climate ambition: carbon neutrality by 2050**
On May 5, 2020, TOTAL announces its ambition of reaching net zero emissions by 2050, together with society, from the production to the use of the energy products by the customers.

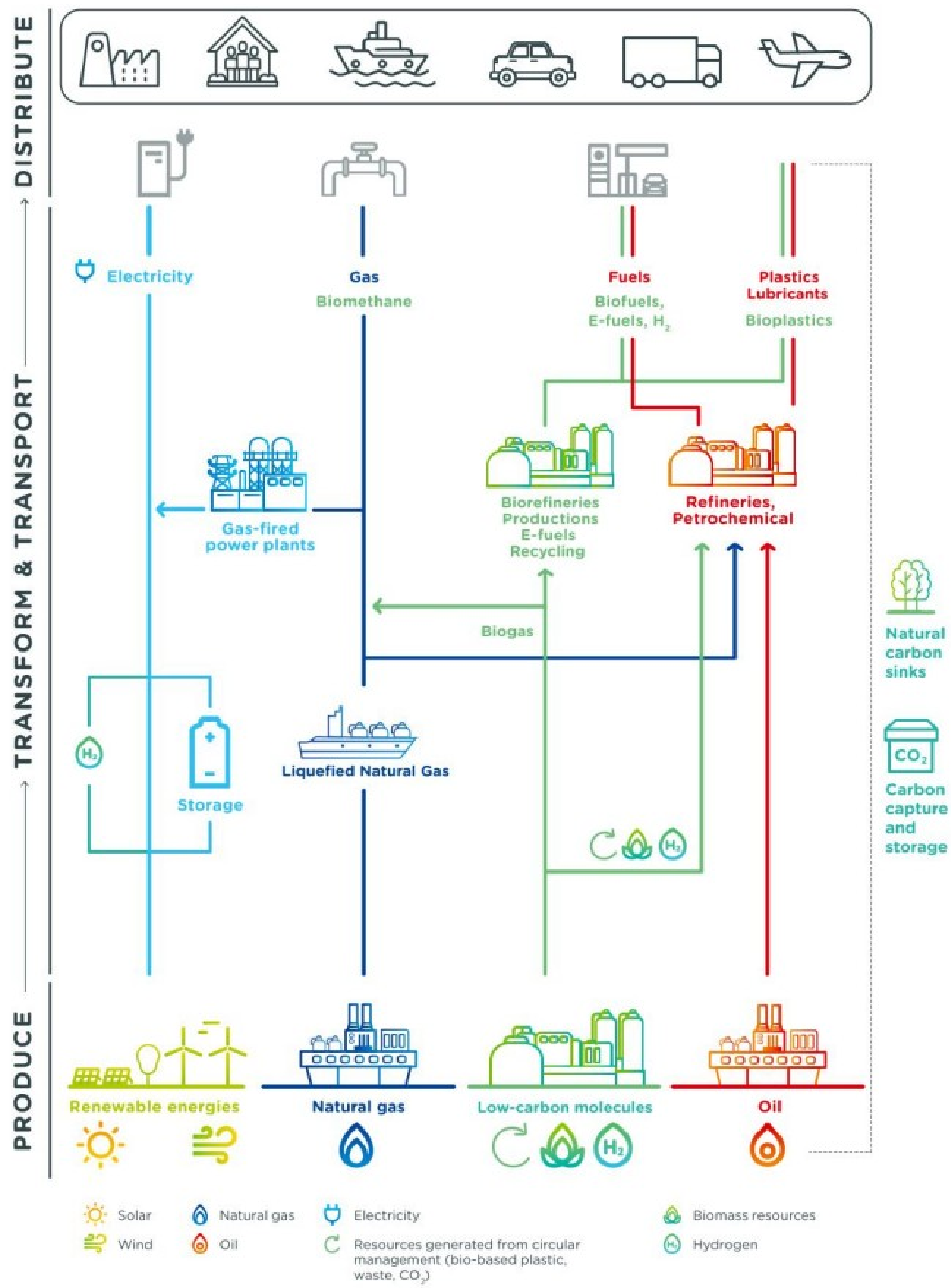

2050
net zero emissions, together with society

## 2021

**TOTAL becomes TotalEnergies and turns into a multi-energy company with the ambition of being a major player in the energy transition.**

### 1.1.3 Our business model

**Integrated value chain**



## Resources and ecosystem

### Proven expertise

- **101,279** employees
- Nearly **160** nationalities
- More than **740** business-related competencies
- **470,000** days of training
- More than **400** talent developers to help employees along their professional development path

### A responsible innovation

- R&D budget: **$762 million**
- **18** R&D centers worldwide
- More than **200** patent applications in 2022

### Top-tier industrial and commercial assets

- **16.8 GW**[1] of gross installed renewable power generation capacities
- More than **42,000** EV operated charging points
- Proved reserves of **10.2 Bboe** and hydrocarbon production of **2,765 kboe/d**
- **16** refineries including **1** biorefinery ○ **29** petrochemical sites including **6** integrated platforms (refining-petrochemicals) ○ **84** specialty chemicals production sites ○ **36** production sites operated (lubricants and greases)
- More than **14,600** service stations in close to **65** countries

### Solid financials

- Operating cash flow before working capital changes without financial charges: **$47.0 billion**
- Net investments: **$16.3 billion**
- Gearing ratio (excluding leases): **7.0%.**
- Pre-dividend organic cash breakeven : **$23.2/boe**

### Geographic reach

- Present in close to **130** countries
- Hydrocarbon production in close to **30** countries

### Environment

- Fresh water withdrawal: **107 Mm³**
- Net primary energy consumption: **166 TWh** (operated perimeter)

Data as of December 31, 2022.

## Shared value creation

### Employees

- **$9.0 billion** payroll (including social security charges)
- **€163 million** for training
- **92.1%** of employees on permanent contracts and women account for **42.1%** of employees hired on permanent contracts
- **83.4%** of employees hired by the Company and **62.7%** of managers hired were non-French nationals

### Customers

- Sales: **$281 billion**
- 3rd largest LNG player worldwide with **48.1 Mt** of LNG sold in 2022, including **17.0 Mt** from equity production of the Company
- **33.2 TWh** of net power production, including **10.4 TWh** from renewable sources
- **96.3 TWh** of gas delivered to **2.7 million** BtB and BtC clients sites
- **55.3 TWh** of power delivered to **6.1 million** BtB and BtC clients sites
- Close to **100** products and solutions bearing the Ecosolutions label by TotalEnergies
- More than **10,000** patents in force worldwide

### Suppliers

- **$27 billion** worth of purchases of goods and services, from a network of more than **100,000** suppliers, supporting hundreds of thousands of direct and indirect jobs worldwide

### Shareholders

- **$10.0 billion** distributed as dividends (ordinary and special)[2]
- Approximately **1.5 million** individual shareholders
- **65%** of employees are shareholders

### Communities

- Fostering social and economic development in host countries with contributions amounting to **$19,825 million** in income tax, **$13,219 million** in production taxes paid by EP activities, **$2,202 million** in employer social charges and **$17,689 million** in excise taxes
- A global integrated local development approach (in-country value)

### Climate

- Reducing GHG emissions (Scope 1+2) from operated facilities from 46 Mt $CO_2$e in 2015 to **40 Mt $CO_2$e** in 2022
- Reducing methane emissions[3] from operated facilities by **50%** between 2010 and 2020 and by **34%** between 2020 and 2022
- Scope 3[4] GHG emissions limited to **389 Mt $CO_2$e** excluding the COVID-19 effect in 2022, below the level of 2015
- Reducing Scope 3 GHG emissions of the petroleum products sold worldwide by **27%** excluding the COVID-19 effect in 2022, compared to 2015
- Reducing carbon intensity of the energy products used by customers by **12%** between 2015 and 2022

(1) Including 20% of Adani Green Energy Ltd gross capacities effective first quarter 2021 and including 50% of Clearway Energy Group effective third quarter 2022.
(2) Excluding dividends paid to non-controlling minority interests.
(3) Excluding biogenic methan.
(4) GHG Protocol - Category 11.

# 1.2 Our strategy: an integrated multi-energy Company

## 1.2.1 How can we respond to current energy demand while preparing for the future?

The energy transition is underway but the world still uses fossil fuels to meet 81% of its energy needs. So to keep global warming to well below 2°C, in line with the Paris Agreement, we must drastically reduce our consumption of fossil fuels (coal, oil, gas) and make the world energy system evolve by building the new low-carbon energy system at a much faster pace. Our collective challenge – which became evident in 2022 – is to reconcile the energy transition with the need for energy security and concerns over its cost. When the supply of oil or natural gas is restricted while demand continues to rise, the resulting price increases and supply insecurity have an immediate and acute impact on communities. To meet the challenge of the energy transition and still ensure that reliable energy is available in the short term at the lowest possible cost, we need to invest in two energy systems simultaneously: we must ensure the current system continues to operate responsibly, and at the same time speed efforts to build a new system centered on low-carbon energies (renewable electricity, biofuels and biogas, clean hydrogen and synthetic fuels, CCS solutions for offsetting residual fossil-fuel emissions).

We can also leverage two measures that will deliver immediate results: replacing coal in energy applications whenever possible and investing heavily to improve energy efficiency.

That, in essence, is TotalEnergies' strategy: to continue providing the energy the world needs now, notably natural gas to replace coal, while responsibly and sustainably accelerating the transition to low carbon energy solutions. This is how, in practice we support to the goals of the Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and the fight against poverty, and which aims to keep the increase in average global temperatures well below 2°C compared to pre-industrial levels.

Events in 2022 gave the Company renewed confidence in its strategy. It is investing with discipline, at a time when its markets continue to evolve at an uncertain pace. Its portfolio of multi-energy businesses gives it the flexibility and discretion to position itself as a leader in the energy transition, regardless of its speed.

The energy transition depends, first, on electrifying energy use, which will require a massive increase in green electricity. TotalEnergies is expanding across the entire electricity value chain, from production of intermittent renewables for flexible power generation to natural gas, storage, trading, and sales, with an eye on profitability. Its goal is to build an Integrated Power segment with a return on average capital employed higher than 10% and to rank among the world's top five providers of solar and wind energy by 2030, with gross capacity of 100 GW and an interim target of 35 GW by 2025 (the Company reached 17 GW as of year-end 2022).

Second, the energy transition depends on the development of new, low-carbon energies (biofuels and biogas, clean hydrogen and synthetic fuels combining hydrogen and carbon) that TotalEnergies has the core skills to produce. The Company is expanding into these new markets by focusing on circular resource management and deploying less-mature technologies at our own sites to test its business viability.

For natural gas, a transition energy, TotalEnergies is pursuing growth across the liquefied natural gas (LNG) value chain to consolidate its position as the world's third-largest supplier. LNG plays a key role in the net-zero roadmap for many coal-consuming countries. It's also a perfect partner for intermittent renewable energies: flexible, controllable CCGT plants ensure a secure electricity supply in the face of unforeseen weather events and fluctuations in demand.

In the oil business, the Company is pursuing a highly selective strategy, restricting its capital expenditure to projects that are less carbon-intensive and have a low breakeven point. That strategy allows to take full advantage of worldwide demand for oil, which continues to climb but is expected to start trending downward in the medium term as transportation goes electric; it can therefore ensure that its business operations remain profitable and resilient over the long term.

As they evolve, the energy markets are becoming increasingly interconnected and interdependent, particularly since electricity – the energy at the center of the transition – is a secondary energy, meaning that it depends on other energies and markets.

The integrated multi-energy strategy of the Company and its solid financial base are strengths that allow it to be a major player of the sustainable energy the world needs and make the most of the current changes, including the potential price volatility they may cause.

## 1.2.2 A Net Zero Company by 2050, together with society

With regard to greenhouse gas emissions, TotalEnergies is committed to shrinking its carbon footprint from production, processing and delivery to its customers. To begin with, the Company is moving forward with an ambitious action plan to reduce the greenhouse gas emissions for which it is responsible (Scope 1+2 emissions from operated facilities) to the strict minimum. The Company also invests in carbon storage and sequestration projects to "neutralize" its residual emissions and to be able to offer those CCS solutions to its major industrial customers.

Although the speed of transition will depend on the pace of change in government policies, consumer practices and corresponding demand, TotalEnergies has embraced the need to offer its customers affordable less carbon-intensive energy products, and to lend support to its partners and suppliers with their own low-carbon strategies.

Drawing on the actions already taken to revise its energy offerings and reduce carbon emissions from its operations, in 2022 TotalEnergies published an outline of how its businesses might evolve as it become a carbon-neutral energy company by 2050, together with society.

**By 2050, TotalEnergies would produce:**

- about 50% of its energy in the form of low-carbon electricity with the corresponding storage capacity, totaling about 500 TWh/y, on the premise that it develops about 400 GW of renewable capacity,
- about 25% of its energy, equivalent to 50 Mt/y of decarbonized fuels in the forms of biogas, hydrogen or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels.

- about 1 Mb/d of oil and gas (about a quarter of the total in 2030, consistent with the decline envisaged in the IEA's Net Zero Scenario), primarily liquefied natural gas (roughly 0.7 Mb/d, or 25-30 Mt/y) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/y of polymers, of which two thirds would come from the circular economy.

**That oil and gas would represent:**

- Scope 1 residual emissions of about 10 Mt/y $CO_2e$, with methane emissions almost eliminated (to below 0.1 Mt/y $CO_2e$), those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks),
- Scope 3 emissions totaling about 100 Mt/y $CO_2e$.

To get to net zero together with society, TotalEnergies would help to "eliminate" the equivalent of 100 Mt/y $CO_2e$ generated by its customers by developping:

- a carbon storage service activity for customers that would store 50 to 100 Mt/y $CO_2e$,
- an industrial e-fuels business that would prevent 25 to 50 Mt/y $CO_2e$ for the Company's customers through their production with 100% green hydrogen, while offsetting the intermittent nature of renewable energies to make them a viable replacement for fossil fuels.

## 1.2.3 2020-2030: a decade of transformation for now and the future

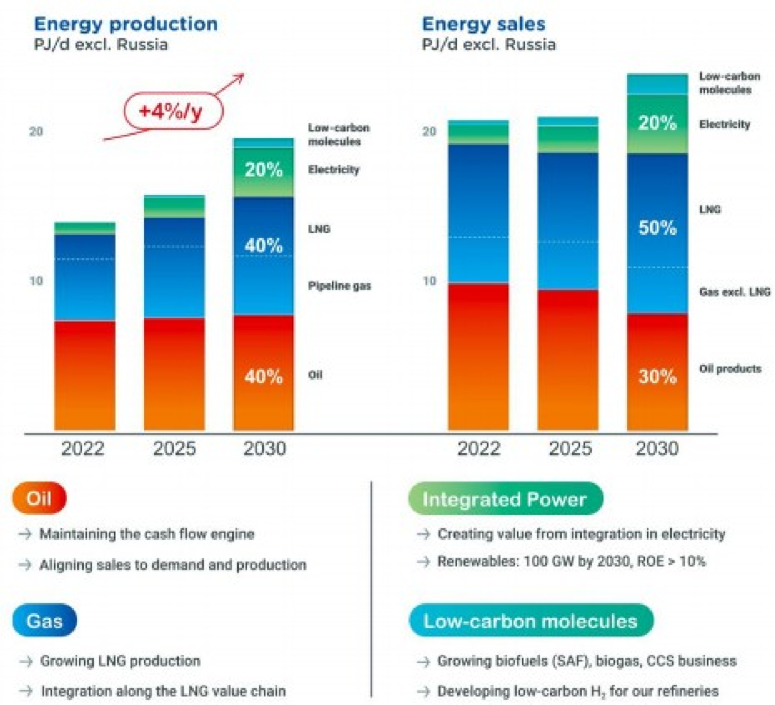
The vision of TotalEnergies potential transformation by 2050 is backed by an investment policy designed to accelerate access to low-carbon solutions (electricity and renewable energies, biogas and biofuels, low-carbon fuels, CCS) while we continue to meet the world's current energy demand. The world's population continues to grow and the inhabitants of emerging nations have legitimate aspirations to a higher standard of living, comparable to that of Western countries. The years 2020 to 2030 will mark TotalEnergies' transformation into a multi-energy company.

**In practical terms, over the coming decade to 2030, TotalEnergies' ambition is to:**

- increase its energy production from 14 PJ/d to 20 PJ/d to meet growing demand. Electricity (primarily renewable power) would account for half that increase, with target power generation of about 130 TWh, and liquefied natural gas would make up the balance, while oil production in the years up to 2030 would remain generally stable,
- pursue efforts to decarbonize the energy products offered to end customers, by decreasing its sales of petroleum products by more than 30% to align those sales with production of about 1.4 Mb/d. That reduction is consistent with the strategy of integration across value chains, and reflects the anticipated decline in fuel demand in Europe, where the shift to electric road transportation is well underway. As a result, oil will account for no more than 30% of its total sales, compared to 53% in 2019.

That forecast trend in its business operations up to 2030 underlies TotalEnergies' carbon emissions commitments over that same period.

**Production and sales of energy**



# 1.3 Transforming ourselves to reinvent energy

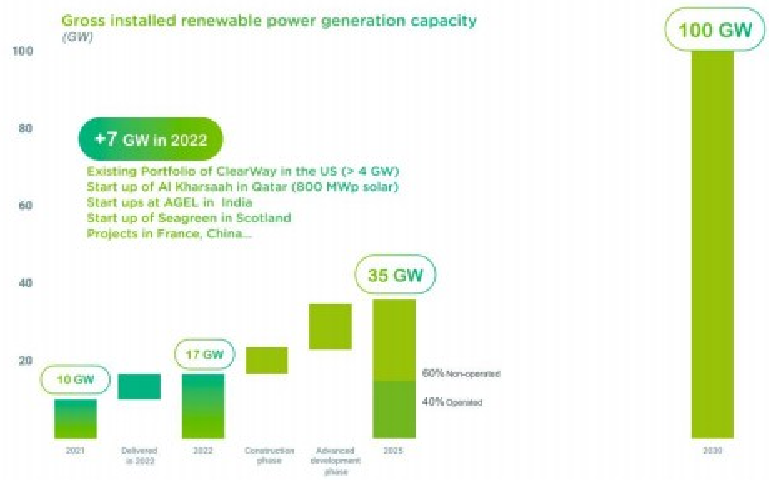
## 1.3.1 Low-carbon electricity: growth and profitability

Serving energy demand with low-carbon electricity is a key focus in the roadmaps of countries committed to reaching carbon neutrality by 2050. As a result, electricity is a fast-expanding market in which TotalEnergies is experiencing profitable growth. The Company's objective is to reach a gross capacity for renewable electricity of 35 GW by 2025 and 100 GW by 2030, a level that would put it among the world's top five producers of renewable electricity (wind and solar).

To achieve growth with a return on average capital employed of more than 10%, the main levers are as follows: choosing projects selectively, integrating across the electricity value chain (generation, storage and trading, B2B and B2C sales), leveraging project management and offshore development skills to control costs, tapping external financing at competitive rates and making partial divestments in order to accelerate cash flow generation from projects and diversify the Company's portfolio exposure.

### a. Executing the roadmap in renewables

The gross installed capacity of renewables rose from 10 GW in 2021 to 17 GW in 2022. The 2025 objective for gross installed capacity (worldwide) is secured, as the Company is now working on projects to achieve its 2030 objective of 100 GW. The move to gain 100% control of Total Eren in 2023 and its integration will help meet that goal.




### b. Creating value by integrating across the electricity value chain

#### Developing flexible generation and storage capacities

The intermittence of solar and wind projects creates a need for flexible generation and storage capacity to ensure supply meets demand at all times and to guarantee grid stability.

**Flexible generation:** The Company began building a dispatchable power generation portfolio in 2015 comprised of combined-cycle gas turbine (CCGT) plants. This portfolio's capacity reached 5.6 GW[1] in 2022 with the commissioning of the CCGT in Landivisiau, France. With production of around 23 TWh in 2022 versus 8.4 TWh in 2021, these units helped offset the impact of weather events and the reduced availability of France's nuclear power plants. Ultimately, these capacities are targeted for decarbonization, either by their supply (biomethane or low-carbon hydrogen) or by sequestering their emissions (CCS).

**Storage:** TotalEnergies is leveraging the technological expertise at Saft Groupe, which is also making the most of this fast-growing market. In 2022, the Company commissioned a 25 MWh battery energy storage system (BESS) at the Carling platform. Saft Groupe also won significant contracts in New Zealand (100 MW BESS to enhance the stability of the national grid, while the production of intermittent renewable energies grows) and Côte d'Ivoire (10 MW ESS to facilitate grid integration of the country's first large-scale photovoltaic solar plant). TotalEnergies has set itself **a new objective for 2030: 5 GW of storage capacity deployed worldwide**.

(1) From nine CCGT plants, two combined heat and power units and one gas-fired power and desalination plant.

TotalEnergies

### Diversifying market exposure

TotalEnergies aims to build a portfolio with a good balance between regulated markets (mainly emerging countries) and deregulated markets (primarily OECD countries and Brazil). In the latter, which are often more competitive, the Company sees electricity prices trending upward over the long term and relies on a combination of long-term contracts (PPA[1] and Corporate PPA) and exposure to wholesale markets of up to 30% to make the most of the value created by price fluctuations. In 2022, TotalEnergies developed its electricity trading capacity which is both crucial for managing this exposure and a competitive advantage for optimizing the value of its projects.

### Developing the customer portfolio

This integration goes all the way to sales to end customers, with packages tailored to consumers and businesses. By 2030, the Company has the objective to serve nearly 10 million consumers in Europe and sell **130 TWh**. It also aims at **150,000 electric vehicle charging points.** For industrial customers, TotalEnergies offers long-term corporate purchase power agreements (Corporate PPAs) from its solar and wind farms, as well as distributed solar generation solutions.

In France, the Company is the market leader in solar power on buildings, having been awarded projects totaling more than 250 MW in the French Energy Regulatory Commission's CRE4 call for tenders since 2017.

**More than $14 B**
invested in electricity between 2015 and 2022

**Close to 17 GW**
of gross installed renewable power generation capacity at the end of 2022

**35 GW**
Target of gross installed renewable power generation capacity by 2025

**more than 6 millions**
electricity customers at the end of 2022

## 1.3.2 Natural gas: a key fuel for the energy transition

### Pursuing TotalEnergies' growth in LNG

In the gas markets, TotalEnergies has put a priority on being present in liquefied natural gas (LNG), which can be shipped everywhere in the world. LNG accounts for around 11%[2] of the total gas market and saw strong growth in 2022 (up 6%[3]) due to interrupted pipeline shipments of Russian gas to Europe. The imbalance between LNG supply and demand led to sharp price increases, from which the Company benefited.

On the flip side, certain consumers have reduced their demand; Pakistan, for example, announced in February 2023 that it intended to use new coal-fired power plants rather than gas to meet future electricity demand.

For LNG to fully play its role in the energy transition, it must remain affordable and the associated greenhouse gas emissions must be controlled across the value chain. TotalEnergies is working on that.

With 48 Mt sold in 2022, TotalEnergies has strengthened its position as the world's third largest LNG company[4]. Of these LNG sales, 99% of these LNG sales went to countries committed to Net Zero by the mid-century, giving them an alternative to coal and fuel oil.

**N°3**
TotalEnergies is the global number three on the LNG market[5] in 2022

**48.1 Mt**
LNG volumes sold in 2022 including 17.0 Mt coming from equity production

### LNG: Contributing to Europe's energy security in 2022

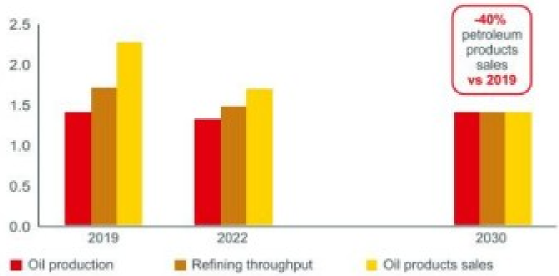
As the leader in regasification in Europe, TotalEnergies fully leveraged its capacities to offset the reduced deliveries from Russian gas pipelines by increasing the utilization rate from 50% in 2021 to 86% in 2022.

The connection of two additional floating storage and regasification units (FSRUs) in Lubmin, Germany (late 2022) and Le Havre, France (planned for the third quarter 2023) should lift the Company's total regasification capacity to more than 20 Mt in 2023. To supply these terminals, TotalEnergies is relying in particular on its position as the leading exporter of U.S. LNG to Europe with more than 10 Mt in 2022.

(1) Power Purchase Agreement.
(2) Source: IEA, World Energy Outlook 2022.
(3) Source: S&P Global, IHS Global LNG Trade Data 2022.
(4) Second largest private player, third player including QatarEnergy; Company data.
(5) Second largest private player, third player including QatarEnergy; Company data.

### 1.3.3 Anticipating changes in demand by adapting our petroleum products sales

**Production and sales of petroleum products**
*(Mboe/d)*




With its Green Deal and Fit for 55 legislative package, the European Union has taken practical steps toward achieving its ambition to become the first carbon-neutral continent, promoting the development of low carbon vehicles. These major trends are prompting TotalEnergies to pursue its strategy of reducing its sales of petroleum products by 40% by 2030, **so that it does not sell or refine more fuel than it produces oil**.

Conversely, this strategy is leading the Company to develop actively in new mobilities: In low-carbon molecules, with the conversion of refineries into biorefineries initiated in Europe. In electric mobility, with the acceleration of the deployment plan of charging points on major roadways and in large cities in Europe. In hydrogen, with the implementation of a European network of hydrogen stations for trucks in partnership with Air Liquide.

**In Europe**, the Company continued to transform its service stations network into multi-energy hubs (with high-power charge points and hydrogen) and was more selective in its petroleum product sales. In March 2023, TotalEnergies announced the sale of its service station networks in Germany and the Netherlands and the creation of a joint venture with Couche-Tard to operate its networks in Belgium and Luxembourg.

**In France**, TotalEnergies was the most active player in 2022 for deploying high-power charge points on motorways to meet both government and motorist expectations.

The Company confirmed that it will stop selling fuel oil for power generation by 2025.

#### Developing non-energy uses of oil that emit less GHG

In addition to their use as fuel to produce energy, petroleum products are also used as material or components. The share of non-energy and low-emitting uses (petrochemicals and lubricants) in oil consumption will increase as mobility turns to decarbonized solutions such as electricity. This is why the Company is pursuing its growth strategy in petrochemicals by focusing on integrated complexes with favorable conditions for access to feedstock.

In 2022 the Company announced the commissioning of a new ethane cracker at Port Arthur (Texas) with a production capacity of 1 Mt/y of ethylene.

**AMIRAL: Recovering more raw material by capitalizing on an existing asset**

In December 2022, TotalEnergies and Saudi Aramco announced an investment of $11 billion (of which $4 billion in equity, 37.5%-financed by TotalEnergies and 62.5% by Saudi Aramco) to develop Amiral, a petrochemicals complex in Saudi Arabia with an ethylene production capacity of 1.65 Mt/y. The project should integrate a steam cracker downstream of the SATORP refinery in Jubail, in which TotalEnergies holds a 37.5% interest alongside Saudi Aramco. The project should make it possible to capitalize on an existing asset that is both profitable and sustainable (first refinery in the region to obtain ISCC+ certification[1]) by valorizing products from Saudi crude into high value-added polymers at the Jubail industrial park. Reducing the site's environmental footprint is a central aspect of the project, with the goal of not increasing GHG emissions by 2030 and building a wastewater treatment plant that will save up to 8 Mm³ of water per year.

**~700 kb/d**
Reduction of TotalEnergies' refining capacity since 2010

**30%**
Target share of petroleum products in TotalEnergies' energy sales mix in 2030, versus 65% in 2015

(1) International Sustainability and Carbon Certification. ISCC+ certification indicates that traceability is ensured from collection of inputs (biomass or waste and residues) to the conversion process, in compliance with the ISCC standard.

## 1.3.4 New low carbon energies

Electrification of uses alone may not be able to meet all needs, in particular in some sectors of transport (aviation, maritime) and heavy industry.

The energy transition also requires the development of low carbon energies based on the conversion of biomass and waste or the production of e-fuels using low carbon hydrogen and $CO_2$ as a raw material. TotalEnergies is developing these new energies (biofuels, biogas, hydrogen and e-fuels).


### Biofuels

Over their lifecycle, biofuels emit 50% less $CO_2e$ than their fossil equivalents (in accordance with European standards[(1)]), making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstock (plants, residues, sugar, etc.) is hampering growth. Among those biofuels, TotalEnergies is putting a priority on producing sustainable aviation fuels (SAF) to decarbonize the aviation industry. Other decarbonization options besides biodiesel are available for road transportation, in particular electricity.

To avoid competition for arable land, TotalEnergies is developing solutions based primarily on food industry waste and residues. The agricultural feedstocks used to make these products comply with sustainability and traceability requirements concerning carbon footprint, non-deforestation, and land use. The Company stopped the supply of palm oil and its derivatives in 2022 and has set a new target that **raises the share of circular feedstocks (used oil and animal fat) to more than 75% of feedstocks used to produce biofuels as from 2024**. In 2022, TotalEnergies signed an agreement with Saria to supply the future Grandpuits biorefinery with this type of feedstock.

### Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas consisting primarily of methane. Compatible with existing transportation and storage infrastructure, it has a key role to play in decarbonizing the use of gas products (power generation, heating). As with biofuels, the roadblocks to development of biogas are the cost and local availability of feedstock.

TotalEnergies is rapidly ramping up in this market, which is essentially local. After acquiring Fonroche Biogaz in France and creating a joint venture with Clean Energy in the United States in 2021, the Company's biomethane production doubled to 0.5 TWh in 2022. The BioBéarn (France) biogas plant came on stream in January 2023 with a planned capacity of 160 GWh per year, making it the largest in France.

The Company's objective is to produce 2 TWh/y of biomethane by 2025 and up to 20 TWh/y by 2030 worldwide.

To get there, it is forming strategic partnerships with the agricultural and wastewater treatment sectors to develop growth hubs in Europe and the United States. Thanks to the acquisition of PGB's activities, the main biogas producer in Poland, announced in March 2023, TotalEnergies plans to reach a capacity of 1.1 TWh/y, which should make it the second largest European biogas producer.

(1) According to the sustainability and GHG gas reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources.

**Hydrogen and e-fuels**

**Hydrogen:** TotalEnergies is working to decarbonize the hydrogen used in its European refineries by 2030, a move that should reduce $CO_2$ emissions by 3 Mt/y by 2030. In addition to the partnership launched in 2021 at the Normandy refinery, TotalEnergies and Air Liquide signed a partnership agreement in November 2022 to build an innovative and virtuous system thanks to its circular integration of production and valorization of renewable hydrogen, at the Grandpuits biorefinery. At La Mède (France), the Masshylia project to produce green hydrogen in partnership with Engie, is advancing.

**3.3 Mt**
Biofuels distributed by TotalEnergies in 2022

**1.5 Mt/y**
SAF production target by 2030

**20 TWh/y**
Biomethane production target by 2030

**E-fuels:** In the longer term, the use of $CO_2$ as a feedstock will make it possible to decarbonize certain transportation sub-sectors even more broadly. Captured $CO_2$ can be combined with green hydrogen to produce synthetic fuels. TotalEnergies is staking out a position in this market. In early 2022, in the United Arab Emirates, the Company joined the initiative of Masdar and Siemens Energy to build a pilot green hydrogen plant that will be used to convert $CO_2$ into sustainable aviation fuel (SAF). TotalEnergies is also developing pilot facilities near its Leuna refinery in Germany dedicated to the use of green hydrogen and captured $CO_2$ to produce molecules that will be used to make sustainable aviation fuel.

## 1.4 Our climate ambition: net zero emissions by 2050, together with society

The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a multi-energy company, therefore, TotalEnergies has factored this development into its strategy and set itself the ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society.

TotalEnergies promotes a policy of reducing GHG emissions based on the following principles in order of priority:

- avoid emissions,
- reduce them by using the best available technologies,
- offset the residual emissions thus minimized.

### 1.4.1 Our objectives

TotalEnergies sets the following intermediate targets by 2025 and 2030:

**At the global level**

**Our emissions**

1. Achieve **by 2050 or earlier** carbon neutrality (net zero emissions) for TotalEnergies' operated activities **(Scope 1+2)** with intermediate targets of:
   - reducing GHG emissions **(Scope 1+2)** from its operated facilities from 46 Mt $CO_2e$ in 2015 to less than 38 Mt $CO_2e$ by 2025,
   - reducing net emissions[(1)] of GHG (Scope 1+2) for its operated activities by at least 40% by 2030 compared to 2015, thus bringing net emissions to between 25 Mt $CO_2e$ and 30 Mt $CO_2e$,
   - reducing **methane** emissions[(2)] from its operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030,
   - reducing **routine flaring**[(3)] to less than 0.1 $Mm^3/d$ by 2025, with the goal of eliminating it by 2030.

**Carbon footprint of products sold**

2. Achieve **by 2050 or earlier** carbon neutrality (net zero emissions) for indirect GHG emissions related to its customers' use of energy products **(Scope 3)**, together with society.

   The Company's intermediate targets compared to 2015 are to:
   - maintain **Scope 3 (world)** GHG emissions related to its customers' use of energy products to a level lower than 400 Mt $CO_2e$, by 2025 and 2030,
   - reduce **Scope 3** GHG emissions from the **petroleum products** sold worldwide by more than 30% by 2025, and by more than 40% by 2030,
   - reduce the lifecycle **carbon intensity** of energy products used by customers by more than 15% by 2025, and by more than 25% by 2030.

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.

# OUR AMBITION

## Net Zero by 2050, together with society

**In line with the objectives of the Paris Agreement**

PARIS2015 COP21·CMP11

**Scope 1+2**
**Net Zero 2050**

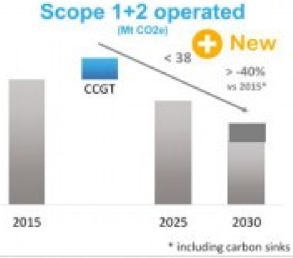
**Scope 3**
**Net Zero 2050, together with society**

## OUR NEW OBJECTIVES FOR 2030

**REDUCE OUR EMISSIONS**

**PRODUCE MORE ENERGY FOR OUR CUSTOMERS WHILE REDUCING OUR PRODUCTS' CARBON FOOTPRINT**

**Scope 1+2 operated**




**Carbon intensity[1]**


**Scope 3 Oil[2]**


## OUR LEVERS

### REDUCE SCOPE 1+2

**IMPROVE THE EFFICIENCY OF OUR FACILITIES**

- Achieve zero routine flaring by 2030 and less than 0.1 Mm³/d by 2025
- Invest in energy saving projects (400 projects identified, 1 G$ in 2023-2024) New
- Decarbonize our electricity purchases in Europe and the United States (Scope 2) by 2025

**TOWARDS ZERO METHANE EMISSION**

- Reduce emissions by 80% by 2030 (compared to 2020)
- Methane intensity of operated gas facilities below 0.1%

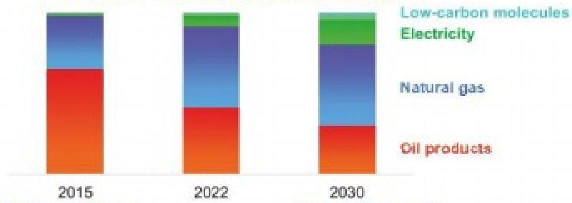
**CAPTURE AND STORE CARBON FROM OUR FACILITIES**

- Develop a CCS capacity of more than 10 Mt/y by 2030[3]

**OFFSET RESIDUAL EMISSIONS**

- Invest $100 million a year to develop a natural carbon sink capacity of 5 to 10 Mt/y by 2030.

### DEVELOP A MULTI-ENERGY OFFER




**Electricity**

- Rank among the Top 5 producers of renewable electricity (wind and solar)
- Achieve the same customer recognition in electric mobility tomorrow as we have in fuel retailing today

**Natural gas**

- Cement our position among the Top 3 in LNG
- Be a reference in the reduction of emissions of the gas value chain

**Oil products**

- Focus on projects with low emissions and low technical costs
- Be a reference in the reduction of emissions of the oil value chains

**Low-carbon molecules**

- Develop production of biogas and biofuels with a 10% share of the global SAF market in 2030
- Become a major player in the production of clean $H_2$
- Become a producer of e-fuels

### REDUCE SCOPE 3 EMISSIONS, TOGETHER WITH SOCIETY

- Guide our customers towards lower-carbon energies
- Promote a circular economy approach in the use of biomass and plastics
- Develop a carbon storage offer for our customers with capacity exceeding 10 Mt/y by 2030[3]
- Forge partnerships with our top 1 000 suppliers to reduce emissions from our purchasing

[1] Average net carbon intensity of energy products
[2] Indirect GHG emissions related to the use by customers of energy products sold. – Oil value chain.
[3] Overall capacity that includes storage for our facilities as well as the storage offer for our customers

## 1.4.2 Our levers to achieve our ambition of net zero emissions

To get to net zero by 2050, together with society, TotalEnergies is transforming into a multi-energy company and deploying specific action plans to reduce its emissions and achieve its short- and medium-term objectives.

The Company is taking action to:

- reduce emissions from its operated industrial facilities (Scope 1+2) and report on the progress made at its operated and non-operated facilities,
- reduce the indirect emissions related to its products (Scope 3), together with society – *i.e.*, its customers, its suppliers, its partners and public authorities – by helping to transform its customers' energy demand.

### 1.4.2.1 REDUCING SCOPE 1+2 EMISSIONS, USING THE BEST AVAILABLE TECHNOLOGIES

#### OBJECTIVES

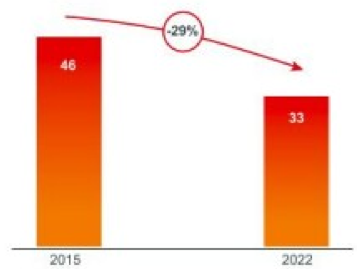
**We are moving aggressively to curtail emissions at our operated sites**

In 2022, GHG emissions from the Company's operated facilities were 13% lower than in 2015, standing at close to 40 Mt $CO_2$e. TotalEnergies' objectives include emissions generated by the growth strategy in electricity pursued since 2015, which has prompted to create a flexible power generation portfolio of CCGT plants. Across the 2015 scope of the Company's oil and gas activities, Scope 1+2 emissions from its operated facilities fell by more than **29% from 2015 levels, dropping from 46 to 33 Mt $CO_2$ in 2022.** In 2022, with more than 110 GHG emissions reduction projects coming to fruition, Scope 1+2 emissions were reduced by 0.8 Mt $CO_2$e across operated facilities. **Examples of emissions reduction projects in 2022:**

- **Upstream:** Emissions reduced by about 70 kt $CO_2$/y thanks to improvements in gas turbine efficiency and refinements to water injection pumps in Angola (Block 17),
- **Refining:** Emissions reduced by about 200 kt $CO_2$/y through improvements in energy use and recovery (Normandy, Antwerp).

**Oil & gas facilities**

**Scope 1+2 operated 100%** *(Mt $CO_2$e)*



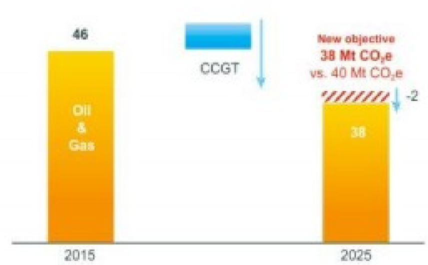

##### 38 Mt $CO_2$e/year: A new bolder objective for 2025

In September 2022 the Company decided to launch a two-year, $1 billion plan to accelerate its energy efficiency initiatives with the goal of saving nearly 2 Mt $CO_2$e across its oil and gas operations.

Thanks to that plan, TotalEnergies is accelerating its target emissions reduction for 2025 by 2 Mt/y $CO_2$e: its new 2025 objective is to reduce Scope 1+2 emissions at its operated facilities to less than 38 Mt/y $CO_2$e. Its objective in 2030 remains inchanged at -40% in 2030 compared to 2015, net of 5 to 10 Mt $CO_2$e from natural carbon sinks.

To reach it, the Company is mobilizing every tool at its disposal to prevent and reduce emissions from its operations. Offsetting from natural carbon sinks will begin in 2030, to offset residual emissions in pursuit of its objective.

**Scope 1+2 at operated facilities - 100%** *(Mt $CO_2$e)*

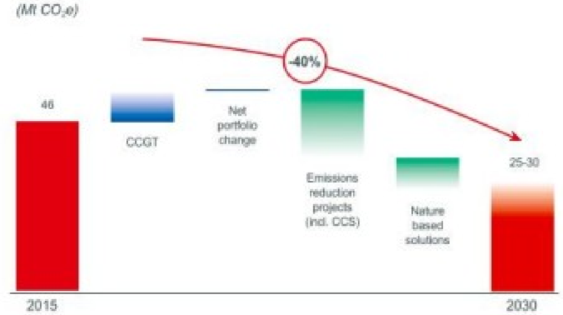



##### 2030 objective consistent with Paris Agreement

This objective of a 40% reduction in net emissions[(1)] of GHG (Scope 1+2) from the operated activities is in line with the reduction target of the European Union's "Fit for 55" program (-37% between 2015 and 2030) and the IEA's Net Zero Emissions 2022 (-35% between 2015 and 2030).

**Scope 1+2 at operated facilities - 100% 2015-2030**

*(Mt $CO_2$e)*

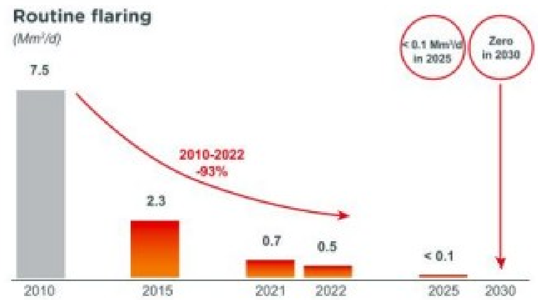



(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.

## IMPROVE THE EFFICIENCY OF OUR FACILITIES

### Progress toward eliminating routine flaring

Curbing routine flaring is a priority for reducing $CO_2$ and methane emissions. In 2000, TotalEnergies committed to discontinuing routine flaring on its new projects. As a founding member of the World Bank's "Zero Routine Flaring by 2030" initiative since 2014, the Company has pledged to end this type of flaring by 2030 and its goal is to reach a level below 0.1 Mm³/d by 2025. The volume of routine flaring fell from 0.7 Mm³/d in 2021 to 0.5 Mm³/d in 2022 - a 93% reduction between 2010 and 2022. Total flaring, including safety flaring as well as routine and non-routine flaring, fell 7% in 2022 from the previous year. As an example of reduction projects in 2022, flaring was cut at Italy's Tempa Rossa field by 32 kt $CO_2e$ thanks to changes in fluid export and separation processes.




### $1 Billion plan Over Two Years for Faster Energy Efficiency Results

Generating energy savings in the Company's operations yields dividends in several ways: TotalEnergies contributes to the collective campaign for energy efficiency, helps to reduce its carbon emissions and lowers its costs.

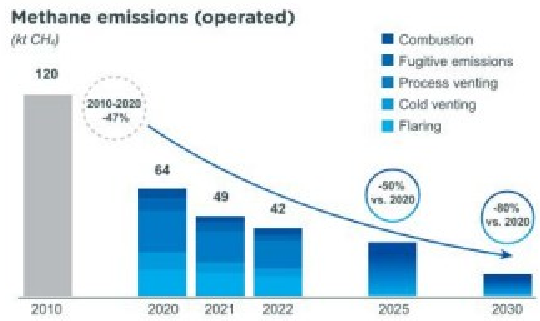
In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. To that end, the Company will be investing $1 billion in 2023 and 2024 in efforts to further reduce its energy use.

This plan, centered on four key pathways and led by OneTech, supports the measures adopted over the past several years within the Company's operating segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 30 initiatives at Marketing & Services and Integrated Gas, Renewables & Power.

## PROGRESS TOWARD ELIMINATING METHANE EMISSIONS

Methane is a greenhouse gas with a global warming potential 28 times higher than that of $CO_2$ and a much shorter atmospheric lifetime[(1)]. This makes controlling methane emissions a priority in efforts to attenuate global warming. To date, 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come from energy, waste and agriculture. Around 25%[(2)] stem from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to reduce methane emissions to close to zero by 2030. TotalEnergies is working towards this goal through the Oil & Gas Climate Initiative (OGCI) and wants its conduct to be exemplary.

The Company has been working on this issue for many years and has already halved its methane emissions between 2010 and 2020.




### A clear ambition: Zero methane and tangible objectives

In early 2022, the Company set very ambitious, specific targets for the decade ahead: **-50% by 2025 and -80% by 2030, compared to 2020**[(3)]. These targets cover all of the Company's operated activities and are in line with the 75% reduction in methane emissions from coal, oil and gas between 2020 and 2030 outlined in the IEA's Net Zero Emissions by 2050 scenario. The Company has also maintained its methane intensity target[(4)] of below 0.1% for its operated gas facilities. In 2022, its methane emissions[(5)] declined by 42 kt, or 34% from 2020 levels.

In addition, TotalEnergies is working with its partners to implement best practices at its non-operated assets.

### Deployment of AUSEA drones: From estimating to measuring methane emissions

Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions in real-life conditions, thanks to the AUSEA (Airborne Ultralight Spectrometer for Environmental Application) drones deployed across virtually all its operated sites worldwide. In 2022, a campaign to detect and measure emissions on site in real-life conditions covered 95% of operated sites[(6)] in the Upstream. More than 1,200 AUSEA flights were carried out in eight countries to cover 125 sites.

AUSEA detection technology, which consists of an ultra-light $CO_2$ and $CH_4$ sensor mounted on a drone, was developed in cooperation with the French National Center for Scientific Research (CNRS) and Université de Reims Champagne Ardennes. It is at the cutting edge of scientific research for detecting and quantifying methane emissions on site, with a high level of accuracy (>1kg/h).


(1) Around 12 years compared with centuries for $CO_2$. Global Warming Potential of 80 over 20 years and 28 over 100 years Global Warming Potential at 100 years, according to the IPCC 5th Assessment Report, 2014.
(2) IEA - Global Methane Tracker 2022.
(3) Excluding biogenic methane.
(4) The intensity of methane emissions in relation to the commercial gas produced.
(5) Of which 97% from Upstream.
(6) Calculated as a percentage of 100% operated production.

TotalEnergies is in advanced discussions with certain operators of its non-operated assets to make this technology available and to carry out targeted detection campaigns.

#### Targeted actions for each methane source, asset by asset

The reduction in emissions is a direct result of an action program at the Company's facilities targeting each specific source of methane (venting, flaring, fugitive emissions and incomplete combustion) and adapted to the specific features of each asset.

#### Leading the industry through OGMP 2.0

In its "An Eye on Methane" report for 2022, the United Nations Environment Programme (UNEP)[1], confirmed TotalEnergies' **Gold Standard** status. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

### EXPANDING GEOLOGICAL CARBON STORAGE TO REDUCE OUR EMISSIONS AND THOSE OF OUR CLIENTS

CCS (Carbon Capture and Storage) refers to an industrial and commercial process that involves capturing $CO_2$, collecting it from industrial sites known as "carbon hubs", transporting it via ship or pipeline and storing it under the seabed. Saline aquifers[2] and former oil and gas reservoirs offer a safe and permanent means of sequestering carbon. Under the IEA's NZE scenario, the world will still be consuming oil and gas in 2050; consequently, the need for CCS has been assessed at 6 Gt $CO_2$ annually by 2050, compared to a current global volume of about 40 Mt/y $CO_2$ captured per year. The emerging CCS value chains require immediate investment if they are to be viable and bring carbon neutrality within reach. TotalEnergies is making that investment to reduce emissions from its facilities and those of its customers.

The Company's objective for 2030 is to store more than 10 Mt/y $CO_2$ on an equity share basis. Close to $100 million were invested in 2022, and TotalEnergies plans to increase these investments to $300 million annually in order to reach its objectives.

#### From pilot projects to full-scale operation: the emergence of a new industry

In Europe, the North Sea has the potential to become a major CCS hub thanks to dedicated funds from the European Union (the Innovation Fund, the Connecting Europe Facility - CEF) or the increase of the ETS carbon price (80 €/t $CO_2$ at year-end 2022), as well as backing from neighboring countries: Denmark is allocating $2.5 billion to CCUS projects in 2022 and 2023, while the United Kingdom is strengthening its regulatory framework for commercial CCS and boosting its financial support, with a package of £20 billion over 20 years. Moreover, Norway, the U.K. and Denmark have each launched a tender process to award exploration licenses for $CO_2$ storage.

The Company is developing several CCS projects in that region, where we can capitalize on this favorable regulatory climate. In 2022 its first commercial project, Northern Lights, reached an advanced stage of construction: drilling is currently underway and work has begun on the receiving terminal for $CO_2$ and transport vessels.

In August 2022, TotalEnergies and its partners have signed with Yara, ammonia and fertilizer plant, the world's first commercial agreement for the transport and storage of $CO_2$ captured on an industrial site in the Netherlands. As of 2025, 800 kt/y $CO_2$ should be captured, compressed, liquefied in the Netherlands, and transported to the Northern Lights site for permanent storage.

#### Expanding $CO_2$ transportation and storage services for customers

In addition to Northern Lights, TotalEnergies is developing several CCS projects that all provide a new use for its operated gas reservoirs at the end of their working life and their offshore facilities.

##### Aramis Project, The Netherlands

This project – developed in the Netherlands by TotalEnergies alongside Shell, Energie Beheer Nederland (EBN) and Gasunie – should offer large-scale, flexible carbon transportation services and open access to offshore carbon storage capacity as a decarbonization solution for industry. Conceptual engineering for phase 1 of the project was completed in 2022 with the goal of storing the first volumes of $CO_2$ in 2027. The project is targeting storage of 5 Mt/y $CO_2$ in its two initial stages, with potential annual storage capacity exceeding 8 Mt/y $CO_2$ by 2030.

##### Bifrost Project, Denmark

Bifrost is a CCS project aiming at developing infrastructure to link European industrial hubs with offshore storage in the North Sea. In partnership with Denmark's state-owned Nordsøfonden, TotalEnergies obtained two licenses in early 2023 encompassing the Harald natural gas fields it operates and a saline aquifer, to explore the area's $CO_2$ storage potential. TotalEnergies will operate under those licenses and plans to develop a project totaling more than 5 Mt/y $CO_2$ by 2030, sourced from Denmark as well as Germany, Sweden and Poland.

#### Reducing carbon emissions at the Company's facilities

CCS is also an important lever for reducing emissions at the Company's facilities, whether it is the operator or partner. Those projects span both upstream (native $CO_2$ capture and storage in Papua New Guinea and at Ichtys LNG) and downstream, with studies underway for the Normandy, Antwerp and Leuna refineries.

In May 2022, an agreement was finalized with Sempra Infrastructure, Mitsui & Co., Ltd. and Mitsubishi Corporation to develop the Hackberry Carbon Sequestration (HCS) project at Cameron LNG, a natural gas liquefaction terminal in the US state of Louisiana. The project will provide permanent storage of up to 2 Mt/y $CO_2$ in a saline aquifer.

(1) "An Eye on Methane": second IMEO report (Internation Methane Emissions Observatory).
(2) A saline aquifer used for $CO_2$ storage is a geological formation made up of sandstone in which highly saline water circulates, unsuitable for consumption or agricultural use and covered by an impermeable rock that allows the $CO_2$ to be contained permanently.

## OFFSETTING RESIDUAL EMISSIONS WITH NATURAL CARBON SINKS

Forest preservation and restoration can be levers to achieve carbon neutrality worldwide by 2050. The Paris Agreement encourages these solutions as a way to meet climate change mitigation targets, as well as the related market mechanisms for carbon credit trading. The COPs in Glasgow (2021) and Sharm El-Sheikh (2022) yielded progress toward that goal, with the adoption of rules for implementation of Article 6 of the Paris Agreement and the appointment of the supervisory body envisioned in Article 6.4.

Nonetheless, the ongoing enhancements to the framework for meeting that goal raise some complex issues. The civil society is rightly demanding measures to strengthen the integrity and permanence of emissions reductions obtained through carbon credits and is warning of the need to manage risks that have adverse effects on people or the environment.

TotalEnergies is backing the efforts underway to create a climate of trust that addresses those legitimate concerns and ultimately yields a robust and reputable voluntary credit system, one that boosts public and private funding to ensure that projects beneficial to the climate, people and diversity can be developed at the appropriate scale. That is one of the challenges facing COP 28, to be held in the United Arab Emirates.

**Avoid, Reduce, Offset**

The Company has embarked on a fundamental transformation in which the priority is to "avoid" and "reduce" emissions. Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, which will continue gradually until 2050, and will offset only its Scope 1+2 residual emissions, amounting to about 10% of the Company's global footprint.

To that end, the Company is investing in forestry, regenerative agriculture, and wetlands protection projects. Its approach consists of combining and balancing the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When this is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

In 2022, TotalEnergies forged new partnerships and agreements with recognized stakeholders in Gabon, Peru, Southeast Asia and Guatemala. At year-end 2022, its stock of credits stood at just under 7 million. We have budgeted \$100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly \$675 million over their lifespan, with the accumulated credits expected to total 45 million in 2030 and 69 million over the lifespan of the projects. The final tally of credits obtained will be determined once the projects have been completed.

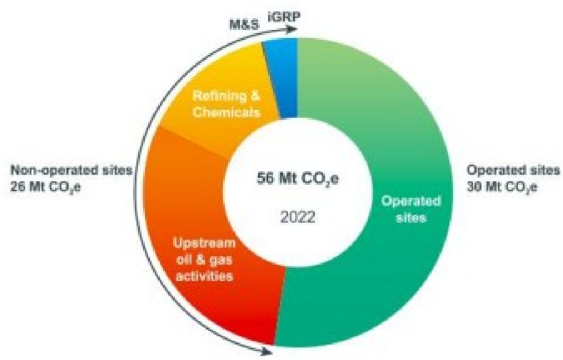
## WORKING WITH PARTNERS ON NON-OPERATED ASSETS

TotalEnergies' Scope 1+2 emissions based on equity share amounted to 56 Mt $CO_2e$ in 2022. Half of those emissions are attributable to its interests in sites it operates; the balance is from its interests in sites operated by its partners.

TotalEnergies is actively mobilizing its partners to reduce emissions from assets they operate:

- in the Exploration & Production segment, a **dedicated team** is tasked with sharing best practices with the partners at non-operated assets, such as deploying a decarbonization roadmap that includes an energy assessment, eliminating methane venting and routine flaring, and improving energy efficiency, particularly for gas turbines and compressors. We use the projects conducted at our operated sites to illustrate ways our partners can reduce their Scope 1+2 emissions and encourage uptake,
- **Carbon capture and storage (CCS)** is also an important lever for reducing direct emissions from assets operated by third parties. To that end, TotalEnergies shares its CCS expertise with its partners, as can be seen in the partnership with Sempra Infrastructures, which operates the **Cameron LNG** natural gas liquefaction plant,
- Regarding **reduction in methane emissions**, TotalEnergies works with its partners at each non-operated site on methane emissions reduction, promoting the goal of zero methane by 2030 and implementing the OGMP 2.0 reporting framework. Feedback and best practices are shared with its partners, for instance via the **Methane Guiding Principles**. TotalEnergies is also a founding member of the Oil & Gas Climate Initiative (**OGCI**), whose 12 members have collectively met the goal of reducing the methane intensity of their operations significantly below 0.2%. The organization is promoting the Aiming for Zero Methane Emissions initiative, which seeks drastic reductions in methane emissions by 2030 across the entire oil and gas industry.

**Scope 1+2 based on equity share - 2022**




### 1.4.2.2 REDUCING INDIRECT EMISSIONS

**Scope 3 Targets by 2025 and 2030**

**World**

- maintain **Scope 3** GHG emissions related to its customers' use of energy products at a level below 400 Mt $CO_2e$ by 2025 and 2030,
- reduce **Scope 3** GHG emissions from the **petroleum products** sold worldwide by more than 30% by 2025, and by 40% by 2030 compared to 2015,
- reduce the lifecycle **carbon intensity** of energy products used by customers by more than 15% by 2025, and by 25% by 2030 compared to 2015 (Scope 1+2+3).

## TotalEnergies' SCOPE 3 EMISSIONS

Under Scope 3 emissions, the Company reports those included in Category 11 of the GHG Protocol, "Use of Sold Products". To prevent double counting and omissions, the Company follows the oil and gas industry reporting guidelines published by IPIECA[1], by logging the largest emissions volumes in each value chain (oil, gas or biofuels), *i.e.*, the higher of production or sales.

In 2022, Category 11 Scope 3 GHG emissions for the oil and biofuels value chains were calculated on the basis of product sales (for which emissions are higher than production) and, for the gas value chain, on the basis of production (for which emissions are higher than sales). Electricity generates no Category 11 Scope 3 emissions.


* Oil products including bulk refining sales.
** Natural gas and condensates excluding minority interests in listed companies.
The emissions associated with the various points on the value chains are not meant to be aggregated, given the integrated nature of TotalEnergies' operations.

*Illustration: Category 11 Scope 3 emissions at various points on the gas, oil and biofuels value chains in 2022*

Under Scope 3 emissions, since 2016 TotalEnergies reports those included in Category 11 related to its customers' use of the products it sells, *i.e.*, from their combustion to obtain energy, as customer use of these products constitutes the bulk of an energy company's Scope 3 emissions.

This year, the Company is publishing for the first time an estimate[2] of indirect emissions under other Scope 3 categories according to the GHG Protocol and IPIECA classification. In addition to its objectives for Category 11 emissions, TotalEnergies is implementing action plans to reduce emissions in each of the other categories. These estimates are now reported in point 5.13 of chapter 5.

## REDUCING SCOPE 3 OIL EMISSIONS AND GUIDING OUR CUSTOMERS TOWARD LOW-CARBON MOBILITY

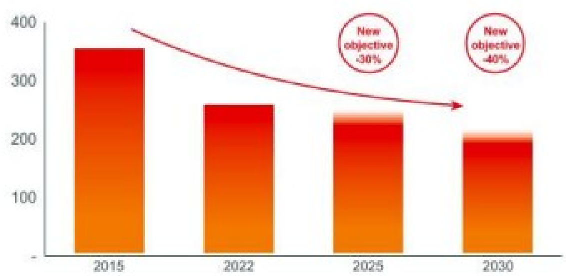
Transportation accounted for about 25% of the world's energy-related $CO_2$ emissions in 2021[3]. Decarbonizing mobility thus represents a major challenge.

### Accelerating the target for reducing the World Scope 3 Oil emissions

The Company is progressively adapting its downstream refining and distribution of petroleum products, which now accounts for a much smaller share of the energy mix of sales. Scope 3 - Category 11 emissions from the Company's oil value chain fell by more than 25% over 2015-2022.

**On the strength of that trend of Scope 3 Oil emissions[4], TotalEnergies is accelerating its targets aiming at a reduction of 30% by 2025, compared to 2015, instead of 2030 previously and to raise the reduction target to 40% by 2030.**

**Scope 3 Category 11 - Oil**
*(Mt $CO_2$e)*




(1) IPIECA - Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions.
(2) Changes in emission estimation standards and methodologies may lead the Company to adjust the values of these estimates in the future.
(3) IEA Transport overview 2022, IEA $CO_2$ Emissions.
(4) GHG Protocol - Category 11.

### Road transportation: accelerating the shift to electric mobility and offering low-carbon fuels

Accounting for 19% of the world's energy-related $CO_2$ emissions, road transportation is far and away the highest-emitting form of mobility. TotalEnergies supports policies to reduce vehicles emissions. That's why it offers solutions for its customers to spur the adoption of electric mobility:

- **deploying charging infrastructure**, with a network of more than 42,000 operated charging points in 2022 (a 65% increase compared to 2021) **and a target of 150,000 charging points worldwide**,
- upgrading services, offering high power charging solutions along major highways (more than 160 in Germany, Benelux and France in 2022). The goal is to equip 700 sites with high-power charging points by 2025,
- **producing batteries for electric vehicles**: launch in 2022 of the construction of the ACC "gigafactory" in northern France, in partnership with Stellantis and Mercedes-Benz.

The marketing of **NGV** (based on natural gas or biogas) and **biofuels** can reduce GHG emissions from the existing automotive fleet until electric vehicles gain a broader market share. Thanks to the conversion of refineries into biorefineries in Europe, TotalEnergies can offer its customers HVO[(1)], a 100% bio-based biodiesel that can reduce $CO_2$ emissions from 50% to 90%[(2)] compared to conventional fuels. In 2022, TotalEnergies distributed 3.3 Mt of biofuels and is aiming for more than 15 Mt by 2030.

The Company is also promoting growth in low carbon **hydrogen** as a mobility solution, particularly for trucks. In 2022, it continued to provide backing to Hysetco, a company that is promoting hydrogen-based urban mobility though a taxi fleet and network of dedicated charging stations.

### Air transportation: developing Sustainable Aviation Fuel

Air transportation is responsible for 2% of the world's energy-related $CO_2$ emissions and is still one of the most difficult sectors to decarbonize. Nonetheless, in October 2022, the members of the International Civil Aviation Organization (ICAO) pledged to achieve net zero emissions by 2050.

The adoption of **Sustainable Aviation Fuels** (SAFs) represents one of the biggest tools in the sector's arsenal for decarbonizing the aviation industry. SAFs can reduce carbon emissions by up to 90% over their entire lifecycle[(3)]. In 2022 TotalEnergies set an ambitious target of capturing **10% of SAF sales worldwide by 2030** and is working with companies across the value chain, from suppliers of bio-based feedstock to customers that are incorporating SAFs into their aircraft fuel. The challenge is to achieve economies of scale in the sector so as to reduce costs and boost adoption of this sustainable solution by its customers.

In December 2022, TotalEnergies signed a memorandum of understanding with Air France-KLM to deliver more than 800 kt of SAF over the 10-year period from 2023. The fuel is expected to be produced in the Company's biorefineries in France for flights departing from France and the Netherlands.

In Qatar, TotalEnergies joined Masdar and Siemens Energy to provide its energy expertise for SAF production. In Japan, TotalEnergies partnered with ENEOS Corporation in April 2022 to develop a SAF sustainable supply chain for the ENEOS refinery in Negishi by 2025.

### Shipping: LNG and bioLNG

The shipping industry, which generates about 3% of the world's energy-related $CO_2$ emissions according to the IEA, has already moved aggressively to shrink its carbon footprint, notably via International Maritime Organization (IMO) rules aimed at halving emissions from shipping by 2050 compared to 2008.

To help its maritime customers reduce their emissions, TotalEnergies has pledged to supply LNG[(4)] (a 10% global market share target in 2030), bio-LNG and biofuels to strategic bunkering hubs. For the longer term, TotalEnergies is collaborating with partners from shipping industry coalitions and inter-industry R&D initiatives to shape the future market for decarbonized shipping fuels, including advanced biofuels, biomethane, and green synthetic methanol and ammonia.

## SCOPE 3 GAS AND CONTRIBUTION TO LOWER EMISSIONS FROM ELECTRICITY AND INDUSTRY

Gas-fired power plants are a flexible resource for power generation and can be mobilized quickly; as a result, they offer a secure backup for grids designed to be powered increasingly by intermittent renewable sources. Gas-fired plants discharge half the greenhouse gases of the coal-powered plants that still, in some countries, account for the majority of power generation capacity. Natural gas can also replace coal or fuel oil for other applications, such as generating heat for industry or homes.

99% of the Company's LNG sales are made in countries that are aiming for carbon neutrality. A large percentage of the natural gas it sells goes to the electricity industry, where it usually competes with coal and fuel oil to provide marginal capacity for power generation.

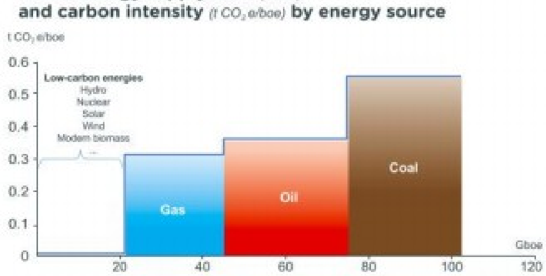
In the light of the positive role played by natural gas, TotalEnergies has set a goal of increasing its share of sales by 2030, and has made the decision not to set a Scope 3 reduction target for this value chain. Whenever a plant powered by coal is replaced by a gas-fired plant, GHG emissions decline, while TotalEnergies' Scope 3 Gas emissions increase.

For the first time, TotalEnergies has done the exercise to estimate the potential emissions reductions to which its 2022 sales of LNG may have contributed. To do that, the Company identified the likely competing source of flexible power generation for each LNG-receiving country.

When the final use of its clients is established and the alternative source of power is identified, the difference between emissions from the alternative fuel (heavy fuel or coal) and natural gas has been calculated, by using power generation emission factors of each country for each of theses sources, as published by the IEA (except for France where the emission factors published by RTE France have been used). For the countries where the final use of LNG sales is not identified, this method is applied to sales volumes weighed by the percentage of power generation in the local natural gas consumption.

The Company estimated therefore the enabled emissions reductions from the use of LNG by its clients at around 70 Mt $CO_2e$.

**World energy supply 2021** *(Gboe)* **and carbon intensity** *(t $CO_2$e/boe)* **by energy source**




*Source: IEA 2022 data on emissions from combustion activities; TotalEnergies analysis*

(1) Hydrotreated Vegetable Oil.
(2) According to the Sustainability and GHG reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable resources.
(3) Compared to conventional jet fuel. Source: "Panorama 2020 - Biocarburants incorporés dans les carburants en France", published by the French Ministery of Environment.
(4) Of which GHG emissions from combustion are approximately 40% lower than those of a typical heavy fuel oil.

## ACCELERATING TO A 25% REDUCTION IN THE CARBON INTENSITY OF SALES BY 2030

The lifecycle carbon intensity of energy products sold divides emissions over a product's lifecycle by the total quantity of of energy sold (refer to point 5.11.4 of chapter 5 for the definition of the indicator).

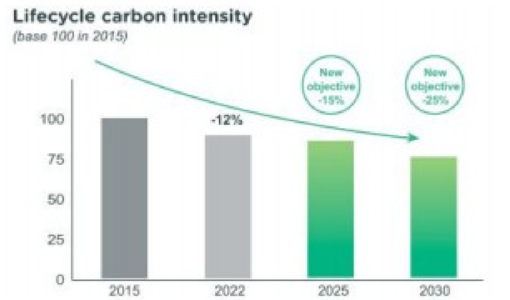
The indicator accounts for the impact of TotalEnergies' multi-energy transformation and its investments in low-carbon energies. Thus, it reflects its progress in decarbonizing the energy mix of its sales and helping its customers reduce their emissions.

In 2022, the Company maintained its progress by notching a 12% reduction in the lifecycle carbon intensity of its products since 2015, thanks to growth in its sales of LNG (up 15% in 2022 over the previous year) and electricity (+3%) and the diminishing share of sales from petroleum products (41% of the sales mix in 2022, compared to 44% in 2021).

On the strength of that progress in 2022, the Company decided to raise its objectives and is now aiming to reduce carbon intensity by 15% in 2025 and 25% in 2030, instead of the 10% and 20% targets that were previously set.

Growth in electricity will drive more than half the reduction in the lifecycle carbon intensity between 2015 and 2030. Another factor will be reduced sales of petroleum products coupled with an increase in gas (and specifically LNG) production and sales of products derived from biomass. Lastly, carbon sinks and lower emissions from facilities will each account for about 5% of the reduction in carbon intensity.

TotalEnergies is positioning itself for the world's future energy supply and fulfilling its ambition of being a major force in the energy transition.




## DECARBONIZATION OF INDUSTRIAL AND COMMERCIAL CUSTOMERS OPERATIONS

As a producer of renewable power, biogas and biofuels, marketer and player of gas and electricity trading and a player in electric mobility, the Company is also helping its customers reduce their energy use by proposing them adapted solutions and is developing $CO_2$ storage solutions for its industrial customers.

Established in 2022, **TotalEnergies OneB2B Solutions** boasts more than thirty experts who assist its large customers across 11 industries in fulfilling their ambitions for the energy transition, thanks to solutions tailored to their needs.

In 2022, **TotalEnergies and Holcim** signed a memorandum of understanding to jointly study the complete decarbonization of a Holcim cement plant in Obourg, Belgium, that is currently being modernized. The partners will be evaluating an array of energies and technology with the aim of avoiding, reducing, capturing, storing and efficiently valorizing the 1.1 Mt $CO_2$ that the site emits each year. TotalEnergies is developing 31 MWp of floating solar panels to supply the site with low-carbon power. These panels should be installed on a former quarry of the cement plant and should be the largest floating solar farm in Belgium.

## ADVOCACY AND ASSOCIATIONS

Energy transition and limiting global warming are a global challenge. TotalEnergies will be able to take up these challenges only by involving actively its partners in particular through its mobilization with public authorities and professional associations.

### Mobilization of professional associations

TotalEnergies is a member of many professional associations and has published a list of its affiliations since 2016. The Company typically cooperates with these organizations on technical matters, but some also take public stances on climate. The Company ensures that these organizations hold positions aligned with its own, and regularly reviews each organization's stance on the climate issues.

Since 2019, TotalEnergies has conducted every two years an assessment of the climate-related public positions of the main professional associations of which it is a member in particular on climate issues. A partial review is conducted in the intervening years. The monitoring and evaluation of associations continued in 2022 and a complete review began at the end of 2022 and is expected to be completed in mid-2023. In 2022 most of the new associations that the Company's entities joined are involved in the energy transition and low carbon energies.

For the associations with positions on climate, the Company examines whether they are aligned with its own, based on the following six principles from its applicable Directive:

- **Scientific position:** TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change,
- **The Paris Agreement:** TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to achieve the objectives of this agreement,
- **Carbon price:** TotalEnergies supports the implementation of carbon pricing,
- **The development of renewable energies:** TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes and transport, such as hydrogen, carbon capture or the electric vehicle,
- **The role of natural gas:** TotalEnergies promotes the role of natural gas as "transition fuel", in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions to move towards the ambition of zero methane emissions,
- **The carbon offset mechanisms:** TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid - reduce by using the "best available technologies" - offset residual emissions thus minimized. TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

**Support for government action and climate disclosures**

TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website.

- **in Europe, TotalEnergies supports the "Fit for 55" package** and specifically some of its key components aligned with its strategy and its positions:
  - generalization of carbon pricing,
  - a large-scale expansion in renewable energies,
  - deployment of infrastructure (charging points, hydrogen),
  - development of low-carbon fuels and renewables for the transportation sector.

  Consistent with this support, the Company sent several responses to the European Commission's public consultations on climate in 2022. They are public, and may be viewed online and they address the measurement of emissions from transportation, certification of carbon sinks and renewable energy and solar energy projects. TotalEnergies has expressed its support for the European Union's carbon border adjustment mechanism as part of the EU emissions trading system. In a letter co-signed with Siemens, the Company has also indicated its backing of the European energy union to the President of France and Germany's Chancellor. TotalEnergies also supports the digital action plan supporting the energy transition from the European Round Table for Industry (ERT).
- **in the United States**, TotalEnergies supports the implementation of the Inflation Reduction Act and plans to capitalize on that legislation with a faster rollout of operations connected with renewable energies.
- **in France**, the Company has joined the EcoWatt initiative led by RTE, the operator of the country's electrical grid, to encourage responsible energy consumption.

Consistent with its transparency principle, in 2022, TotalEnergies lent its backing to new climate reporting standards proposed by the US Securities and Exchange Commission (SEC) and the International Sustainability Standards Board (ISSB)[1]. The Company is also cooperating with the Science Based Targets initiative that aims to develop standards applicable to its industry in order to identify criteria for compatibility with the goals in the Paris Agreement.

### 1.4.2.3 OUR DECARBONIZATION PROGRESS IN 2022

Continued progress in 2022, aligned with, and often ahead of, with its objectives by 2030, demonstrates year after year the strong commitment in the transformation of the Company on the way to its ambition for 2050:

- emissions from operated facilities have declined **by more than 13% since 2015** - this takes into account 7 Mt $CO_2e$ of emissions from CCGTs corresponding to the implementation of its new strategy in the field of electricity to have flexible power generation capacities - the decrease on operated oil & gas facilities was therefore actually more than 30%,
- for indirect emissions associated with customers' use of its products, Scope 3 world emissions have declined since 2015,
  - For the part linked to petroleum products, the decline is by more than 27%,
  - The lifecycle carbon intensity indicator for the energy products sold **fell by 12% since 2015**, making TotalEnergies a leader among its peers in the decarbonization of its energy mix.

## 1.5 Our sustainability ambitions and targets

### A PROCESS OF CONTINUOUS IMPROVEMENT

TotalEnergies has placed sustainable development in all its dimensions at the heart of its strategy, projects and operations, in order to contribute to the well-being of the populations. TotalEnergies has structured its sustainable development approach for conducting its activities so as to contribute to the achievement of the United Nations Sustainable Development Goals (SDGs), to which TotalEnergies has committed its support since 2016.

To that end, TotalEnergies leverages the principles of action at the core of its responsible business model and its Code of Conduct, which applies to all of the Company's operations around the world:

- Safety is a TotalEnergies value. Safety, operating excellence and sustainable development go hand in hand,
- Respect for each other is another TotalEnergies value and respect for human rights is a cornerstone of its Code of Conduct,
- Zero Tolerance is the rule in the fight against corruption and fraud.
- Transparency is the rule in engaging with society, no matter what the subject.

TotalEnergies' ambition to be a major player in the energy transition, committed to carbon neutrality by 2050, together with society, calls for the mobilization of its 100,000 employees.

Through workshops, more than 27,000 of them took part in 2022 in the development of 10 objectives and indicators related to the SDGs. In 2023, it is planned each site, business unit and subsidiary of TotalEnergies around the world adopts a progress plan with targets to be achieved by 2025 and each plan to be based on actions directly linked to the local activities of the entity concerned, as close as possible to the field. These plans form the Sustainab'ALL program through which TotalEnergies materializes its contribution to sustainable development.

TotalEnergies' commitment to the sustainable development focuses on four areas:

- **climate and sustainable energy**: leading the transformation of the energy model to contribute to fight against climate change and meet the needs of populations,
- **people well-being**: being a reference as an employer and responsible operator. TotalEnergies intends to promote a work environment that combines performance and conviviality, and to ensure compliance with human rights in the workplace, both within the Company and with its partners, as well as the safety and health of people,
- **care for the environment**: to be exemplary in the management of the environment and the use of the planet's natural resources. TotalEnergies intends to ensure that the environmental impacts of all its operations are managed according to the Avoid-Reduce-Offset approach, thereby helping to preserve the environment, biodiversity and fresh water resources. To this end, TotalEnergies promotes the circular economy,
- **creating value for society**: generate shared prosperity across regions. TotalEnergies is a creator and a driver of positive change for the communities in its host regions.

(1) Created in November 2021 by the IFRS (International Financial Reporting Standards) Foundation, the ISSB is an organization whose purpose is to develop sustainability standards that will facilitate the non-financial reporting of companies.

## BUSINESS ETHICS COMMITMENTS

TotalEnergies operates in many different countries with disparate and complex economic, social and cultural environments, where governments and civil society have especially high expectations of the Company as an exemplar. Within this context, TotalEnergies strives to act as a vehicule for positive change in society by helping to promote ethical principles in every region where it operates.

Accordingly, TotalEnergies is committed to respecting internationally recognized human rights wherever it operates, especially the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

The Company refrains from resorting to artificial or aggressive tax planning and in particular is committed not to create subsidiaries in countries generally acknowledged as tax havens and to repatriate or liquidate existing subsidiaries, where feasible.

Furthermore, TotalEnergies is fully committed to fighting corruption and has adopted a policy of zero tolerance in that area.

In addition to that commitment, it lends active support to initiatives promoting greater transparency. TotalEnergies publishes in its Universal Registration Document an annual report covering the payments made by the Company's extractive companies (fully consolidated entities) to governments and the full list of its consolidated entities, together with their countries of incorporation and operations.

The Company also publishes a tax transparency report which provides additional information on the taxes paid in its main countries of operation.

TotalEnergies publishes a report based on the new EITI (Extractive Industries Transparency Initiative) guidelines in November 2020 designed to promote transparency in the trade of raw materials. In accordance with the EITI framework, of which it has been a member since 2002, TotalEnergies advocates for the disclosure by countries of their petroleum contracts and licenses.

## VOLUNTEERING PROGRAM

In 2018, the Company introduced a worldwide employee community volunteering program called *Action!*, designed to give its employees the time and opportunity to do more to foster development in its host regions. *Action!* lets volunteer employees devote up to three workdays a year to local community projects that fall within the scope of the TotalEnergies Foundation program.

By the end of 2022, the program had been implemented in 98 countries, and close to 25,000 inclusive projects had been carried out since the program's launch.

## TARGETS AND PROGRESS INDICATORS

Whether with regard to safety, health, climate, the environment or shared growth, TotalEnergies manages its operations with the aim of working in a sustainable, active and positive manner in all of the Company's host countries. The Company was one of the first in the industry to publish measurable improvement targets in these areas. Refer to point 5.13 of chapter 5 for a detailed presentation of the performance indicators of the Company.

## Safety/Health

Protecting the safety of its employees, stakeholders and facilities is a priority for TotalEnergies, as is protecting the health of all people directly or indirectly involved in its activities.

**SAFETY**

| Targets | Facts |
|---|---|
| Avoiding the occurrence of a major industrial accident | No major industrial accidents in 2022 |
| Zero fatal accidents | 3 fatalities in 2022 |
| Continuously decrease the TRIR and achieve a TRIR of 0.65 by 2023. The 2022 target was 0.70 | A TRIR[(1)] of 0.67 in 2022 |

**HEALTH**

| Target | Facts |
|---|---|
| Protecting the health of employees at work | 99% of employees with specific occupational risks received regular medical monitoring in 2022[(2)] |

(1) TRIR (Total Recordable Incident Rate): number of recorded incidents per million hours worked.
(2) Data provided by the WHRS.

## Climate

| Targets | Facts |
|---|---|
| **2030 worldwide targets (Scope 1+2)** | |
| – Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt $CO_2$e in 2015 to less than 38 Mt $CO_2$e by 2025. By 2030, the target is a reduction of at least 40% of the net emissions[(1)] compared to 2015 for its operated activities, *i.e.*, 25 Mt $CO_2$e to 30 Mt $CO_2$e | – A GHG emission reduction (Scope 1+2) from operated facilities from 46 Mt $CO_2$e in 2015 to **40 Mt $CO_2$e** in 2022 |
| – Improve by an average of **1%** per year the **energy efficiency** of operated facilities since 2010 | – **15%** improvement in energy efficiency between 2010 and 2022 |
| – Reduce **methane emissions**[(2)] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030 | – Methane emissions[(2)] already reduced by **50%** between 2010 and 2020 and by **34%** between 2020 and 2022 |
| – Maintain the **intensity of methane emissions** at less than 0.1% of commercial gas produced at operated gas | – A methane intensity of less than **0.1%** for operated gas facilities |
| – Reduce **routine flaring**[(3)] to less than 0.1 $Mm^3$/d by 2025, with the goal of eliminating it by 2030 | – More than **90%** reduction in routine flaring between 2010 and 2022 |
| **2030 worldwide targets (Scope 3)** | |
| – Maintain Scope 3[(4)] GHG emissions related to its custmers' use of energy products to a level lower than 400 Mt $CO_2$e by 2025 and 2030 | – Scope 3 emissions limited to **389 Mt $CO_2$e** excluding the COVID-19 effect in 2022, below the 2015 level |
| – Reduce **Scope 3**[(4)] GHG emissions from the **petroleum products** sold worldwide by more than 30% by 2025 compared to 2015. By 2030, the target is a reduction of at least 40% | – A decrease of the Scope 3 GHG emissions from the petroleum products sold worldwide in **27%** excluding the COVID-19 effect in 2022 compared to 2015 |
| **2030 worldwide target (carbon intensity)** | |
| – Reduce the **lifecycle carbon intensity of energy products** used by customers by more than 25% compared to 2015; by 2025, the target reduction is at least 15% (**Scope 1+2+3**) | – A decrease of the carbon intensity of energy products used by customers of **12%** between 2015 and 2022 |

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(4) GHG Protocol - Category 11.

## Environment

TotalEnergies places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of its facilities.

**ENVIRONMENT MANAGEMENT SYSTEM**

| Target | Facts |
|---|---|
| Have the environment management systems of sites important for the environment[1], certified to the ISO14001 standard | **100%** of the sites important for the environment certified to the ISO14001 standard in 2022 |

**AIR**

| Target | Facts |
|---|---|
| Decrease sulfur dioxide ($SO_2$) emissions into the air by **75%** between 2015 and 2030, a target that amounts to not exceeding 15 kt emitted in 2030 (new) | **69%** reduction in $SO_2$ emissions into the air, excluding conjunctural events, between 2015 and 2022 |

**WATER**

| Targets | Facts |
|---|---|
| Reduce the freshwater withdrawal of the sites located in water stress area by **20%** between 2021 and 2030 (new) | Stabilization of withdrawal in water stress area and launch of major resource preservation projects (preservation target of 9 Mcm/y) |
| Limit the hydrocarbon content of water discharges to below **30 mg/l** for offshore sites | **93%** of the Company's oil sites met the target for the quality of offshore discharges in 2022 |
| Limit the hydrocarbon content of water discharges to below **1 mg/l** for onshore and coastal sites by 2030 (new) | **73%** of the Company's oil sites met the new target for the quality of onshore discharges in 2022 |

**WASTE**

| Target | Facts |
|---|---|
| Recycle more than **70%** of the waste from sites operated by the Company's subsidiaries by 2030 (new) | **61%** of the waste produced by sites operated by the Company's subsidiaries excluding digestate from biogas units was recycled in 2022 |

(1) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment, operated by the Company.

## Biodiversity

| Commitments | Facts |
|---|---|
| – Implement a net zero deforestation policy in new projects on new sites approved from 2022 onwards<br>– Implement the biodiversity ambition in the 4 areas presented in point 5.5.4 of chapter 5 | – No deforestation action took place on new projects on new sites, approved in 2022<br>– No oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List<br>– No exploration activity in oil fields under sea ice in the Arctic<br>– **7** biodiversity action plans deployed or in preparation in 2022 for projects located in protected areas[1] or aligned with IFC standard<br>– **43** biodiversity assessments carried out on sites important for the environment[2] in 2022<br>– World Environment Day was celebrated in 2022 on the theme of biodiversity, thereby raising awareness among the Company's employees<br>– 18 citations in scientific publications of biodiversity data sets produced by the Company and shared in the database of the Global Biodiversity Information Facility (GBIF) database |

(1) Sites located in an IUCN I to IV or Ramsar convention protected area.
(2) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment, operated by the Company.

## Diversity

| Targets | Facts |
|---|---|
| Women to account for **30%** of Executive Committee members and of the G70[1] by 2025 | **25%** of Executive Committee members and **32.9%** of the G70 are women |
| Women to account for **30%** of senior executives by 2025 and **30%** of senior managers by 2025 | **27.5%** of senior executives are women and **23.8%** of senior managers are women |
| Non-French nationals to account for **45%** of senior executives by 2025 and non-French nationals to account for **40%** of senior managers by 2025 | **37.4%** of senior executives are non-French nationals and **34.2%** of senior managers are non-French nationals |

(1) Senior executives with the most important responsibilities.

# 1.6 Our investment policy

TotalEnergies' investment policy is designed to support the deployment of its strategy of transformation into a multi-energy company and its ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society. This policy is guided by two axes: discipline and selectivity in oil and gas investments on the one hand, and strong growth in profitable investments in electricity and renewables on the other.

In 2022, given the strong cash flow generation and solid balance sheet, the Company accelerated its transformation strategy and invested $16.3 billion, including $3.6 billion in the Integrated Power segment (including the acquisition of 50% of Clearway Energy Group for $1.6 billion and the payment of a $795 million bonus related to the New York Bight offshore wind concession in the US).

Through 2030, TotalEnergies expects net investments of between $14 billion and $18 billion per year, depending on the cycle, along the following lines:

- **investments in low-carbon energies and carbon footprint reduction programs** are expected to jointly account for around 33%of net investments. They include investments in Integrated Power, low-ca rbon molecules (biofuels, biogas, plastic recycling, biopolymers, synthetic fuels and hydrogen) and the reduction of the Company's carbon footprint,
- **investments in natural gas, mainly LNG**, which are expected to account for more than 20% of net investments. These investments are expected to strengthen production capacity and allow new markets to be developed thanks to liquefaction or regasification plant projects, while at the same time investing in the decarbonization of natural gas through biogas, biomethane and hydrogen,
- about 45% of the investments are expected to be allocated to **maintaining the activities of the oil chain**, dedicated to the maintenance of existing assets and to the development of projects allowing current production levels to be maintained. In downstream, TotalEnergies plans to continue to adapt its refining capacity and sales of petroleum products to changing demand, particularly in Europe.

So the Company should dedicate **around 30% of net investments to the development of new oil and gas projects**. These investments are expected to focus on low-cost, or low break-even, and low-emission upstream projects.

**A sustainable capital investment policy supporting the transition by 2030**

## 1.6.1 Major investments over the period 2020-2022

| Gross investments[1] *(M$)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Integrated Gas, Renewables & Power | 6,475 | 6,341 | 6,230 |
| Exploration & Production | 10,646 | 7,276 | 6,782 |
| Refining & Chemicals | 1,391 | 1,638 | 1,325 |
| Marketing & Services | 1,186 | 1,242 | 1,052 |
| Corporate | 104 | 92 | 145 |
| **TOTAL** | **19,802** | **16,589** | **15,534** |

| Net investments[2] *(M$)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Integrated Gas, Renewables & Power | 3,993 | 4,506 | 4,903 |
| Exploration & Production | 10,027 | 6,523 | 6,063 |
| Refining & Chemicals | 1,281 | 1,285 | 1,155 |
| Marketing & Services | 914 | 923 | 900 |
| Corporate | 88 | 70 | (32) |
| **TOTAL** | **16,304** | **13,307** | **12,989** |

| Net acquisitions[3] *(M$)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Acquisitions | 5,872 | 3,284 | 4,189 |
| Assets sales | (1,421) | (2,652) | (1,539) |
| Other operations with non-controlling interests | – | – | – |
| **TOTAL** | **4,451** | **632** | **2,650** |

| Organic investments[4] *(M$)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Integrated Gas, Renewables & Power | 1,904 | 3,341 | 2,720 |
| Exploration & Production | 7,507 | 6,690 | 5,519 |
| Refining & Chemicals | 1,319 | 1,502 | 1,209 |
| Marketing & Services | 1,035 | 1,074 | 814 |
| Corporate | 87 | 68 | 77 |
| **TOTAL** | **11,852** | **12,675** | **10,339** |

### Organic investments in 2022

In the Integrated Gas, Renewables & Power segment:

- in Integrated Power, organic investments mainly concerned construction projects for solar and wind power sponsored by the Company, particularly in the United States, in France, in the United Kingdom and the Yunlin project in Taiwan, as well as the industrial activities of Saft Groupe,
- in Integrated LNG, organic investments focused mainly on developing LNG production projects that had already been commissioned (Ichthys LNG and Gladstone LNG in Australia) and liquefaction trains under construction, for which the final investment decision had been taken (Nigeria LNG Train 7 in Nigeria and ECA in Mexico). In biogas and hydrogen, organic investments mainly concerned the development of biomethane production units that had already been commissioned (the BioBéarn unit with 160 GWh capacity in France) or were under construction in the United States in partnership with Clean Energy. In 2022, TotalEnergies also continued to develop projects to produce green hydrogen at its La Mède biorefinery in France, in partnership with Engie, and low-carbon hydrogen (as defined by European standards) in the Normandy industrial basin, using technologies such as CCS and electrolysis, in partnership with Air Liquide.

In the Exploration & Production segment:

- most of the organic investments were allocated to the development of new hydrocarbon production facilities, the maintenance of existing facilities, infill well projects for assets already in production and exploration activities. Development investments concerned in particular the Mero 1 project commissioned in April 2022 in Brazil, the Ikike project commissioned in July 2022 in Nigeria and the Johan Sverdrup 2 project commissioned in December 2022 in Norway, as well as major projects under construction (Tilenga & Kingfisher in Uganda and the associated cross-border EACOP pipeline project in Uganda/Tanzania, Anchor and Ballymore in the United States, Mero 2, 3 and 4 in Brazil and the redevelopment of Tyra in Denmark and Absheron in Azerbaijan),
- in CCS, TotalEnergies has invested in partnerships in the development of carbon storage projects located in the North Sea and which are under construction (Northern Lights in Norway) or under study (Aramis in the Netherlands, Northern Endurance in the United Kingdom and Bifrost in Denmark),
- in natural carbon sinks, the Company continued to invest notably in large-scale inclusive forestry and agricultural management projects in the Republic of Congo and Gabon, and participated in the Tropical Asia Forest Fund 2 (TAFF2), which aims to invest in certified plantations and primary forest conservation projects in several South East Asian countries.

(1) Including acquisitions and increases in non-current loans. The main acquisitions for the 2020-2022 period are detailed in Note 2 to the Consolidated Financial Statements (point 8.7 of chapter 8).
(2) Net investments = organic investments + net acquisitions. Statement of IFRS cash flow used in investing activities reconciliation is presented in point 5.4.6.3. of chapter 5.
(3) Net acquisitions = acquisitions - assets sales - other operations with non-controlling interests.
(4) Organic investments = net investments excluding acquisitions, assets sales and other operations with non-controlling interests.

In the Refining & Chemicals segment, organic investments focused, on the one hand, on facility safety and maintenance and, on the other hand, on projects aimed at improving plant competitiveness, especially in Europe, such as Donges in France, where the Company is building a diesel desulfurization unit. They were also devoted to the further development of the project to transform the Grandpuits refinery into a zero-crude platform focusing on new sources of energy and low-carbon activities, which is expected to represent a total investment of more than €500 million by 2025.

In the Marketing & Services segment, organic investments basically concerned the maintenance of the worldwide network of service stations, logistics and production and storage facilities for specialty products. TotalEnergies also increased the proportion of its investments dedicated to the deployment of charging infrastructure for electric mobility and the conversion of its service stations into multi-energy sites, mainly in Europe.

**Acquisitions in 2022**

In 2022, TotalEnergies' finalized acquisitions amounted to approximately $5.9 billion (compared to $3.3 billion in 2021 and $4.2 billion in 2020).

TotalEnergies accelerated its development in renewable energy, particularly in the United States, with the acquisition of 50% of Clearway Energy Group for $1.6 billion paid in cash (refer to Note 2.1 to the Consolidated Financial Statements in chapter 8) as well as the payment of bonuses related to the New York Bight offshore wind concession OCS-A 0538 and concession OCS-A 0545 in North Carolina for $795 million and $160 million, respectively.

In Exploration & Production, TotalEnergies concentrated its acquisitions on low-cost, low-emission oil projects, notably strengthening its presence in the Brazilian pre-salt region thanks to the Atapu and Sépia production sharing contracts awarded against payment of $2.8 billion.

**Disposals in 2022**

TotalEnergies completed asset sales amounting to about $1.4 billion in 2022 (compared to $2.7 billion in 2021 and $1.5 billion in 2020). They included in particular:

- in the Integrated Gas, Renewables & Power segment, the partial disposal of the Landivisiau power plant in France, the sale by SunPower of its shares in Enphase as well as the disposal of 50% of its stake in a portfolio of solar and wind power projects in France,
- in the Exploration & Production segment, a payment linked to the disposal of interests in offshore block CA1 in Brunei and the sale of the 18% stake in the Sarsang field in Iraq.

Net investments thus amounted to $16.3 billion in 2022 (compared to $13.3 billion in 2021 and $13.0 billion in 2020).

## 1.6.2 Major planned investments

In line with its growth strategy in the Integrated Power segment, TotalEnergies plans to pursue its development in renewables, with projects to build solar and wind (particularly offshore) power plants, led by TotalEnergies Renewables International, TotalEnergies Renouvelables France, along with the industrial activities of Saft Groupe. In particular, the Company intends to continue its investment efforts in the United States, on the Seagreen project in the United Kingdom and the Yunlin project in Taiwan and plans to finalize the creation of the joint venture with Casa dos Ventos to develop a 12 GW renewable energy portfolio in Brazil.

In Integrated LNG, investments are expected to be focused on major LNG production projects for which the final investment decision has already been made (North Field East in Qatar, Nigeria LNG Train 7 in Nigeria and ECA in Mexico).

In Exploration & Production, investments in the development of oil and gas projects are likely to be dedicated mainly to the Tilenga & Kingfisher projects in Uganda and the associated EACOP cross-border oil pipeline project in Uganda/Tanzania, as well as to major development projects under way for which the final investment decision has already been taken (Anchor and Ballymore in the US, Mero 2, 3 and 4 in Brazil, the redevelopment of Tyra in Denmark and Absheron in Azerbaijan). In addition, more than $1.2 billion are expected to be spent on short-cycle development projects, particularly in Angola, Nigeria, North Sea and the United States.

TotalEnergies plans to continue investing up to $100 million per year in natural carbon sink projects in various regions of the world and to increase its investments in CCS projects to $300 million a year (including R&D programs aimed at developing negative emissions technologies), particularly in the North Sea.

In downstream, significant portions of the Refining & Chemicals segment's investment budget are earmarked for facility safety and maintenance, the commissioning of a new diesel desulfurization unit in Donges (France), the continuation of the project to transform the Grandpuits refinery (France) into a zero-crude platform and construction, in partnership with Saudi Arabian Oil Company, of a world scale petrochemical complex in Saudi Arabia.

Investments in the Marketing & Services segment are expected to be mainly allocated to the global network of service stations and to new mobility (electricity, gas and hydrogen).

Finally, a $1 billion energy savings investment program is planned to be rolled out globally in 2023-2024 to keep the costs of energy consumed under control and accelerate the reduction of emissions.

## 1.6.3 Financing mechanisms

TotalEnergies self-finances most of its investments with cash flow from operating activities and may occasionally access the bond market when financial market conditions are favorable. Certain subsidiaries or specific projects may be financed through external financing, notably in the case of joint ventures. These include Ichthys LNG in Australia, Satorp in Saudi Arabia, Mozambique LNG in Mozambique, Cameron LNG in the United States and Hanwha TotalEnergies Petrochemical Co. in South Korea.

As part of certain project financing arrangements, TotalEnergies SE has provided guarantees. These guarantees ("Guarantees given on borrowings") as well as other information on TotalEnergies' off-balance sheet commitments and contractual obligations appear in Note 13 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). TotalEnergies believes that neither these guarantees nor the other off-balance sheet commitments of TotalEnergies SE or any other company of the Company have, or could reasonably have in the future, a material effect on TotalEnergies' financial position, income and expenses, liquidity, investments or financial resources.

# 1.7 Innovation for the transformation of TotalEnergies

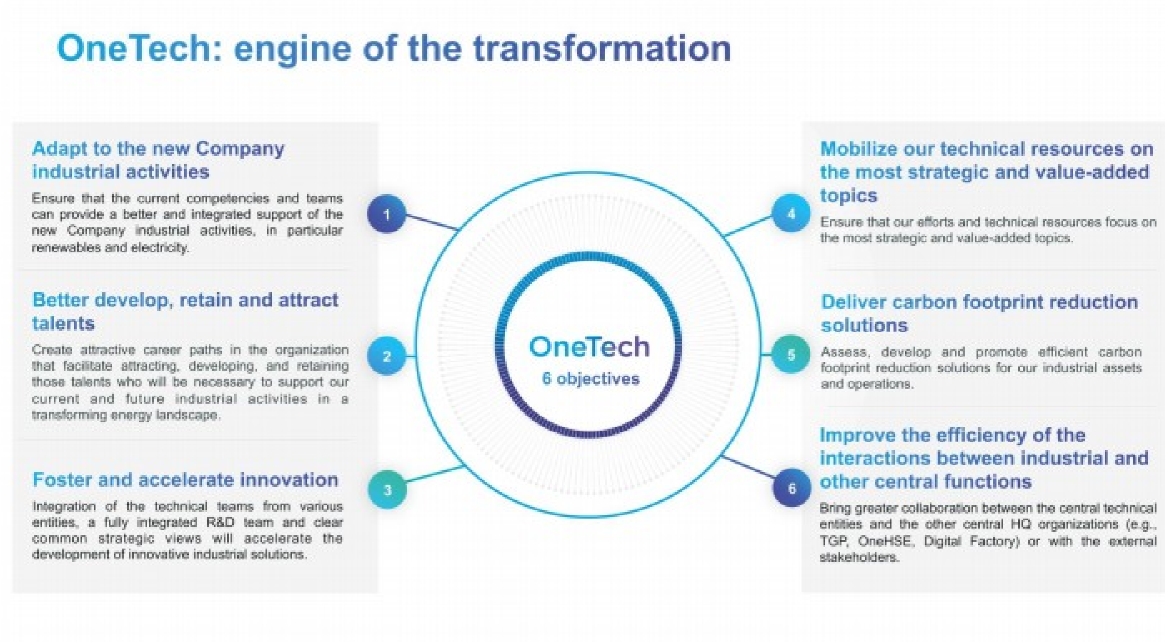
## 1.7.1 OneTech, engine of the transformation

The creation of the OneTech branch in September 2021 reflects the vision of the Board of Directors to mobilize the company's employees to meet the new challenges of TotalEnergies and to address the dual challenge of climate change and a growing global energy demand. TotalEnergies' business success and technological progress have always been driven by its teams' pioneer spirit, performance-minded attitude, as well as by the technical and scientific skills which are widely recognized by its peers and partners.

The mission of OneTech is to provide the technical and R&D expertise that TotalEnergies needs to implement its transformation strategy and become a multi-energy company.

With its 3,400 engineers, technicians and researchers working at 9 sites in Europe, OneTech supports TotalEnergies' various activities every day to achieve operational excellence and innovation.

**OneTech focuses on six objectives**




The centralization of technical and scientific expertise within OneTech has simplified the identification of relevant counterparts on each subject for stakeholders and the entire Company.

### A NEW DEDICATED ORGANIZATION

OneTech's organization is built on three functional hubs: an Industrial hub, a Research & Development hub and a Support Functions hub. The teams of these hubs are based in France, Belgium, Denmark and in other international R&D centers.

- The Industrial Hub consists of:
  - the Customer Lines, which is the entry point into OneTech for internal customers from the operational branches. This division coordinates the operational and technical support of OneTech and the allocation of resources from the associated Technical Lines needed by the operational branches. It also carries out technical evaluations of new businesses and case studies for the preparation of new asset developments in the Business Units. As part of this division, a dedicated team has been created to develop and implement projects to reduce the carbon footprint of the Company's assets,
  - the Technical Lines, which incorporates all technical expertise and industrial know-how. In collaborative teams it brings together experts and actors from the same technical fields, formerly located in different entities or branches, thus promoting synergies between the Company's sites, as well as the sharing of experience, best practices, innovative solutions, knowledge, and know-how.
- The Research & Development (R&D) Hub consists of the Research & Development (R&D) division that brings together all the Company's R&D activities in one single entity. This hub designs and runs the Company's R&D in response to the Business units' needs. It also engages partners to anticipate, explore and de-risk new paths and innovative technologies to develop proofs of concept that are subsequently transformed into prototypes in close collaboration with the Technical and Customer lines. The R&D hub also develops the skills and the technological intelligence to scout new businesses and emerging technologies to implement the strategy of TotalEnergies.

## 1.7.2 R&D at the forefront of the Transformation of TotalEnergies

To prepare for the future, the Company has allocated more than $1 billion in funding for R&D and digitalization in 2022.

The Company invested $762 million in its own and its subsidiaries' R&D in 2022 (compared to $849 million in 2021 and $895 million in 2020) with a dedicated workforce of more than 3,500 researchers. At constant foreign exchange rates, research and development costs increased by 4% over one year.

Over the past years, the Company has strongly re-oriented its R&D to support its strategy of transformation. Compared to 28% in 2017, TotalEnergies has decided in 2022 to devote 65% of the 2023 R&D budget to low-carbon energies (renewables, biomass, batteries, etc.) and to reducing the environmental footprint through CCUS and sustainable development programs.

According to the different scenarios studied by TotalEnergies, achieving the ambition of carbon neutrality (net zero emissions) by 2050, together with society does not only require the large-scale deployment of proven technologies such as solar photovoltaics, wind energy or biofuels, it also requires technological breakthroughs and the development of completely new industrial value chains, notably in areas such as hydrogen, synthetic fuels or carbon capture and storage. The Company also invests in digital expertise and artificial intelligence (AI) through the development of solutions to accelerate its energy transition (refer to point 1.7.3) and that of its customers.

The transformation of TotalEnergies into a multi-energy company requires an agile R&D that is strongly committed to innovation. R&D activities are derived from the Company's growth strategy, carbon neutrality ambition and commitment to sustainable development.

The R&D hub is organized along five lines:

- the R&D line **"Power"** deals with renewable energies, the construction of hybrid power plants and distributed energy resource optimization. The objective is to reduce the cost of production of low-carbon energy, to decarbonize the assets and to develop new products and services. To accelerate the implementation of R&D programs, TotalEnergies has partnered with the Technical University of Denmark to create a center of excellence in decarbonized energy. The center has three missions: the construction of a new generation hybrid power platform, collaborative research on wind technology of next generation and floating offshore, as well as multi-energy training programs for employees,
- the R&D line **"$CO_2$ & Sustainability"** develops innovative and competitive technologies for ever more sustainable solutions. These projects comprise the capture, storage and use of $CO_2$ for synthetic sustainable fuels, as well as the development of low environmental footprint technologies for the entire liquefied natural gas chain, biogas and hydrogen sector. Works performed on water and soil management and the quantification of greenhouse gas emissions are also contributing to the deployment of low-carbon tfootprint echnologies. The development of AUSEA[(1)] by the TotalEnergies R&D in partnership with the CNRS and the University of Reims is an example of the development of innovative and competitive technologies that reinforces the Company's pioneering role in methane emission reduction technologies. This miniature drone-mounted sensor is able to detect and quantify methane and carbon dioxide emissions while identifying the sources of these emissions. This innovative technology is currently being deployed on the Company's operated Upstream oil & gas facilities,
- the R&D line **"Fuels & Lubricants"** is supporting the transformation of the transportation and mobility sector by developing products to enhance the performance of electric systems and gas engines and to reduce the environmental footprint of existing solutions. TotalEnergies has recently developed a new innovative cooling fluid that can be in direct contact with electric vehicle battery cells, allowing for more efficient battery cooling than possible with fluids currently available on the market. As a result of this innovation, TotalEnergies has partnered with Valeo to bring in its expertise in associated thermal systems to assure the best integration of this fluid into the electric vehicle battery pack and to optimize its performance, thus reducing the carbon footprint of electric vehicles,
- the R&D line **"Downstream Processes & Polymers"** pilots and conducts research on polymer recycling, the development of new-generation biofuels and process electrification. The development of sustainable aviation fuels (SAF) is one key area of R&D activity that is carried out in particular under a partnership agreement between TotalEnergies and Safran to jointly develop technical and commercial solutions to meet the challenges of decarbonizing the aviation sector,
- the R&D line **"Upstream"** aims to improve the operational efficiency of exploration and production activities, both in terms of reducing greenhouse gas emissions and cutting costs, in line with its portfolio optimization strategy. To tackle the major challenge of geological storage of $CO_2$, TotalEnergies is collaborating with INRIA to develop new digital simulation tools to improve the geological characterization of reservoirs and thus monitor the $CO_2$ that will be injected and stored there. This set of tools combining high-performance computing, geoscience, seismic imaging and ultra-complex mathematical modeling should provide a better understanding of the behavior of carbon stored in subsurface reservoir rocks and predict its evolution and changes in the reservoir over the very long term,
- in a transversal role and complementary to the five R&D lines, the **Anticipation and Portfolio Performance** division conducts foresight activities on emerging topics and trends to ensure the detection of technologies that could be disruptive for the Company. It also engages in exploratory activities to identify innovative solutions or technologies for the Company's existing and future businesses. Besides, it is responsible for the R&D portfolio management for a maximum operational efficiency and value creation.

In addition to OneTech's five R&D lines, Hutchinson and Saft Groupe, both subsidiaries of TotalEnergies, carry out R&D linked to their respective business activities.

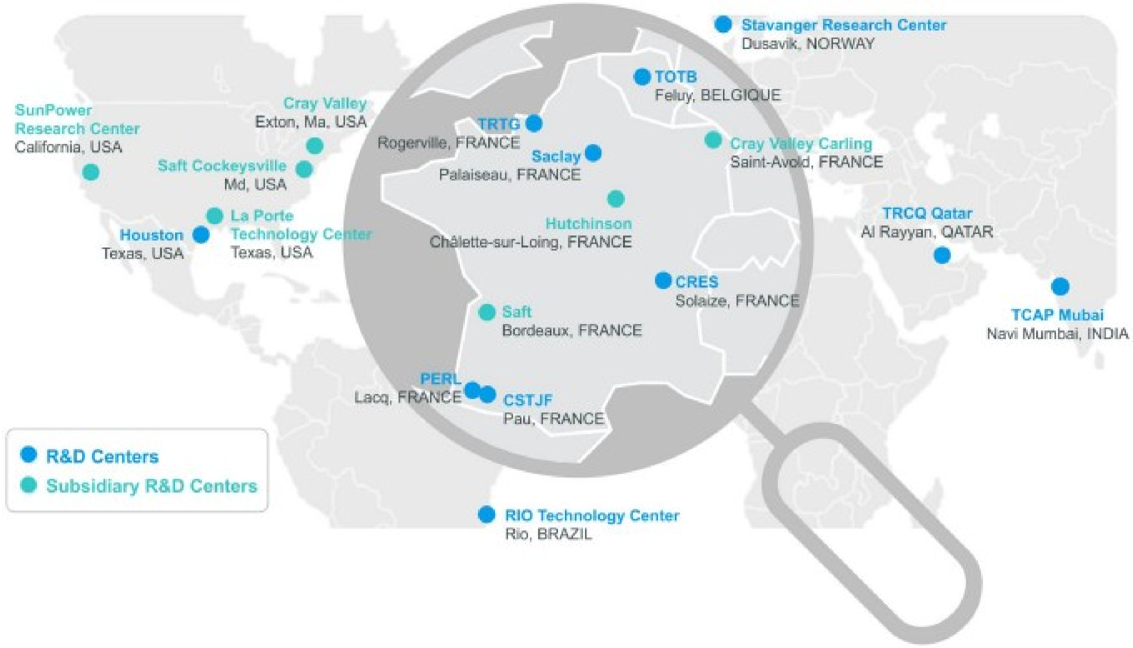
- Hutchinson's R&D develops technology driven solutions to meet the challenges of the mobility of the future prioritizing sustainability and electrification. These multi-expertise and multi-market solutions are based on five areas of expertise: Noise Vibration Harshness (NVH), Sealings, Thermal Management, Materials and Structures for extreme conditions of use, and power transmission. The objective is to improve the customers' performance in terms of sustainable development, safety, energy efficiency and comfort.
- Saft Groupe conducts research to develop ever safer and more powerful batteries, particularly for mobility applications and renewable energy storage, using artificial intelligence and big data. In 2020 TotalEnergies together with its subsidiary Saft Groupe partnered with Stellantis to found ACC (Automotive Cells Company), which was joined by Mercedes-Benz in 2021. ACC's objective is to develop and produce battery cells and modules for electric vehicles with a focus on safety, performance and competitiveness, while ensuring the highest level of quality and the smallest carbon footprint. The creation of this European battery consortium, supported by France, Germany and the European Union, is intended to help Europe meet the challenges of the energy transition in the mobility sector and to ensure the supply chain security of a key component for the automotive industry of tomorrow.

(1) Airborne Ultra-light Spectrometer for Environmental Applications: drone-mounted methane detection technology.

To accelerate the transformation, R&D activities are carried out by drawing on talent and by maintaining 18 R&D centers worldwide as well as pilot sites, all working in an open-innovation approach with industrial partners, start-ups and the best research and innovation ecosystems. TotalEnergies engages nearly 1,000 partners each year.

In addition, the Company has an active intellectual property policy to protect its innovations, maximize their exploitation and technological differentiation. In 2022, more than 200 patent applications were filed by the Company.

**18 TotalEnergies R&D centers worldwide**




## 1.7.3 Digital acceleration as a performance lever

In early 2020, TotalEnergies opened a Digital Factory in Paris, bringing together 300 developers, data scientists and other experts to accelerate the Company's digital transformation. TotalEnergies' ambition is to use the full potential of digital tools to create value in all its businesses.

The Digital Factory develops digital solutions that the Company needs to improve its industrial operations in terms of both availability and costs. It offers new services to its customers for managing and optimizing their energy consumption, expanding into new decentralized energies, and reducing their environmental impact. The ambition is to generate by 2025 up to $1.5 billion per year in value for the Company, whether in the form of additional revenues or savings on operations or capital expenses. Since 2020, more than 60 solutions have been created and are being progressively deployed in the Company's relevant business units.

# 1.8 Our strengths

## 1.8.1 Our employees

### OUR EMPLOYEES' COMMITMENT AND GROWTH ARE KEY TO OUR SUCCESS

The Company is committed to a deep transformation and can rise to the challenges it faces thanks to the commitment of its workforce. Therefore, TotalEnergies strives to uphold the strictest standards of safety, ethics and integrity, management and social performance wherever its subsidiaries operate. The goal of that policy is to create an environment in which every employee can reach his or her potential and TotalEnergies can continue to pursue its growth and transformation.

TotalEnergies maintains a dialogue with the Company's employees and their representatives, who have a privileged position and role, particularly in discussions with management teams. Social dialogue is one of the pillars of the Company project. In order to associate the employees to the major challenges of the Company, the expectations of employees are regularly listened to and discussed. In 2022, TotalEnergies conducted an internal opinion survey of employees (TotalEnergies Survey) in order to gather their views and expectations regarding their professional situation and their perception of the Company, on a local or Company-wide level. The results of this survey[1] showed a 78% commitment rate, and 85% of employees who are proud to work for TotalEnergies. A Company-wide participatory initiative was launched in 2022 to involve all employees in the achievement of TotalEnergies' ambitions in terms of sustainable development.

(1) Internal opinion survey conducted in 2022 with 85,640 employees in 122 countries.

As a responsible employer, the Company is convinced that the well-being of employees is an essential source of professional fulfillment, long-term performance and contributes to the protection of mental health. The Company promotes decent employment and social protection in a work environment that combines performance and conviviality. In 2019, the Company launched "Better Together", the human part of its Company project, in response to employees' expectations and in order to raise the Company's human ambitions to the same height as its business ambition. This project has three ambitions: to develop the talents of every employee, to promote the coaching dimension of managers and to build a company where it is a good place to work. These ambitions have been translated into concrete projects, in order to quickly anchor the changes in the daily lives of employees. More than 400 talent developers are actively assisting individual employees in their professional development by offering personalized support. Job mobility is now an internal recruitment process that allows employees to apply for available positions in complete transparency. More than 10,000 vacancies were published in 2022. Functional, geographic mobility and lifelong training are essential levers in order to develop everyone's skills and employability and meet business challenges. Actions to develop the managerial culture have also been taken to empower managers in their role as manager-coaches, to support team development and to improve collective performance. The Company has decided to broaden its ambition of making the Company a good place to work together, by developing in 2023 a *TotalEnergies Care* program based on measures and commitments relating to physical and mental health, social protection, the work environment, ways of working and the family sphere.

To promote a just transition and support TotalEnergies' employees at every stage of the Company's transformation to new energies, the Transforming with our people program was launched in 2022. This program includes not only the implementation of listening, informing and training measures, but also an upskilling and reskilling initiative, and the implementation of a skills map in order to build bridges between current jobs and the jobs of renewables & electricity, and to target key skills.

### A DIVERSE AND INCLUSIVE COMPANY CULTURE

The diversity of its employees and management is crucial to the Company's competitiveness, appeal and capacity for innovation. TotalEnergies promotes an inclusive corporate culture, at the highest level by the Company Diversity and Inclusion Council, which is chaired by a member of the Executive Committee.

TotalEnergies intends to propose an inclusive working environment to create the collective conditions allowing everyone, whoever they are, to assert their personality, their ideas and their energy to bring the best of themselves to the common project and promote the development of everyone's potential. The variety of opinions and career paths yield both innovative solutions and new opportunities. Thanks to its motivated, enterprising workforce, the Company can carry out ambitious projects and provide every employee with the opportunity to give meaning to their work and find professional fulfillment. With nearly 160 nationalities represented in its workforce, a presence in close to 130 countries and more than 740 professional skills, the Company boasts genuine human potential.

In order to continue the existing momentum, the Diversity roadmap, sets out the targets for 2025 on gender balance and internationalizing management bodies and senior management:

- 30% of women in the Executive Committee (25% in 2022),
- 30% of women in the G70[(1)] (32.9% in 2022),
- 30% of female senior executives (27.5% in 2022),
- 30% of female senior managers (23.8% in 2022),
- 45% of non-French nationals senior executives (37.4% in 2022),
- 40% of non-French nationals senior managers (34.2% in 2022).

The Company has a long-standing commitment to promoting equal opportunity, diversity and inclusion, which constitute, for everyone, a source of development where only expertise and talent count. In 2018, the Company decided to adhere to the Global Business and Disability Network Charter of the International Labour Organization (ILO) and is gradually implementing these principles in its subsidiaries. In 2022, more than 8,100 employees took part in community support projects as part of the *Action!* program.

## 1.8.2 Our integrated multi-energy model

TotalEnergies' model of value creation is based on integration across the energy value chain, from exploration and production of oil, gas and electricity to energy distribution to the end customer, and including refining, liquefaction, petrochemicals, trading, and energy transportation and storage.

This integrated business model enables the Company to capitalize on synergies among the various businesses while responding to volatility infeed stock prices. Thanks to this business model, the Company's Upstream activities, which are more dependent on the price of oil, can complement its Downstream activities, which – at the bottom of the cycle – enable the Company to generate value-added untapped by the Upstream part of the business. With this integration of its operations across the entire value chain, the Company can manage the bottom of the cycle more effectively and capture margins when the market improves.

TotalEnergies is applying this integrated model to the new electricity and renewables businesses in which the Company has staked out a position in recent years. The Company can leverage those businesses with the know-how and resources inherent in its business model, including a global brand and presence, technical expertise (e.g., in offshore operations and trading) and partnerships with governments and local communities.

Accelerating growth in electricity and renewables will strengthen TotalEnergies' model of value creation and diversify the Company's geographical risk profile. That transition enables to cement the sustainability and resilience of TotalEnergies' value creation model bolstering its ambition of getting to Net Zero (net zero emission).

(1) Senior executives with the most important responsibilities. Together with the Executive Committee, they form part of the Company's management bodies within the meaning of point 8.1 of the AFEP-MEDEF Code.

## 1.8.3 Our operational excellence

Energy is an industrial sector that demands state-of-the-art know-how and complex facilities that are both flexible and reliable.

### ACKNOWLEDGED TECHNICAL EXPERTISE

Thanks to the technical expertise wielded by the Company's women and men and their ability to manage large-scale projects, TotalEnergies has been able to forge trust-based partnerships with the world's primary producing countries and global consumers. The Company's expertise allows it to provide convincing support to its customers and partners in even the most demanding fields, such as liquefied natural gas, electricity, offshore wind and renewables, deep offshore, refining and petrochemicals, where the Company has developed platforms that are among the industry's top performers.

### HIGH-PERFORMANCE INDUSTRIAL STREAMLINED ASSETS

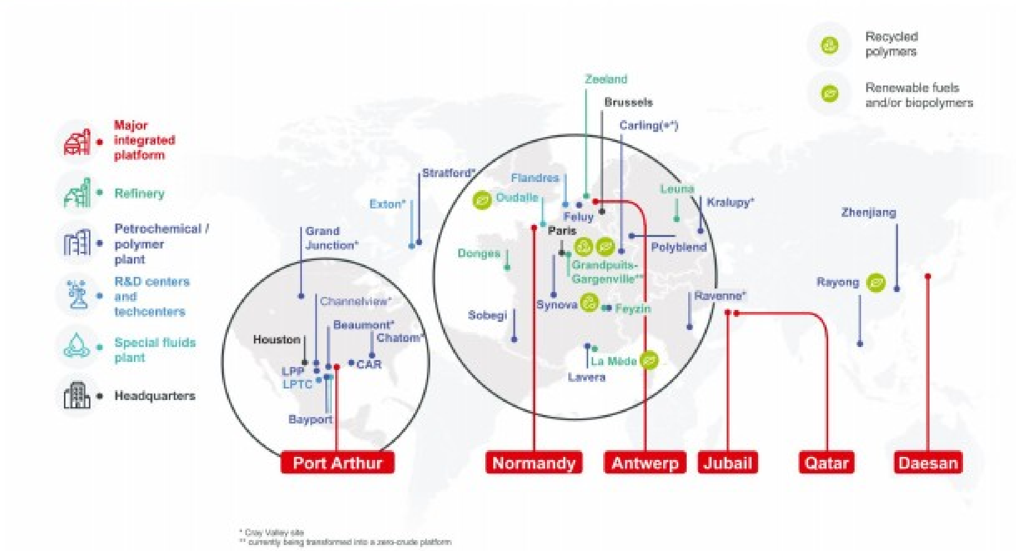
TotalEnergies boasts streamlined, high-performance industrial assets portfolio that ensure its resilience in its traditional businesses. Moreover, the flexibility of those assets allows the Company to adapt to changing markets. TotalEnergies is one of the world's top 10 integrated producers[1]. Its refining and petrochemicals operations are structured around six major integrated complexes (Port Arthur in the United States, Normandy and Antwerp in Europe, Jubail and Qatar in the Middle East and Daesan in South Korea), which provide opportunities for synergies and enhance value creation between those two businesses. The Antwerp facility is the Company's largest refining and petrochemicals complex in Europe.

To meet a growing global demand and respond to market trends, the Company has upgraded and adapted its sites to focus production on higher-value-added products that meet the most stringent environmental standards. TotalEnergies has also invested in making its petrochemicals sites more flexible so they can use the most advantageous feedstocks. Most of those sites can now process both naphtha and ethane, to ensure a reliable, cost-competitive supply.

The La Mède biorefinery, the first world-class facility of its type in France and one of the largest in Europe[2], aims to meet the growing demand for biofuels. Operational as of July 2019, it has a capacity of 500 kt/y of HVO-type[3] biodiesel. The HVO technology the Company has selected is French, developed by IFP Énergies nouvelles and marketed by its Axens subsidiary. It produces a sustainable, premium biofuel similar to fossil fuels that can be blended into regular fuels in any proportion and has no adverse effect on engines.

TotalEnergies is ramping up its renewable electricity generation capacity – solar, wind and hydroelectricity – to satisfy the surge in electric power needs responsibly.

**Main sites of Refining & Chemicals at year-end 2022**




As part of its strategy to support its Climate ambition to get to carbon neutrality (net zero emissions) by 2050, TotalEnergies plans to convert its refinery in Grandpuits, France, into a zero-crude platform. By 2024, following an investment totaling more than €500 million, the complex will focus on four new industrial activities: production of renewable diesel mainly for the aviation industry, production of bioplastics, plastics recycling and operation of two photovoltaic solar power plants.

Moreover, the Company is moving ahead with projects to convert its deep offshore oil production complexes into offshore wind power platforms, a strategy that is wholly aligned with its goal of profitable growth in renewables & electricity.

TotalEnergies can also take specific steps to support the conversion of its industrial sites through additional projects that can be conducted at the same time:

- a forward-looking project, led by the relevant segment based on an analysis of market trends, with the goal of modifying a given site's industrial infrastructure in order to restore a long-term competitiveness of the Company,
- a Voluntary Agreement for Economic and Social Development (CVDES), implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change.

(1) Based on publicly available information, production capacity at year-end 2021 (refer to point 2.4 of chapter 2).
(2) TotalEnergies data based on production capacity.
(3) Hydrotreated vegetable oil.

## 1.8.4 A global footprint, with local roots

### A GLOBAL PRESENCE

TotalEnergies has an industrial and retail presence in close to 130 countries spanning five continents.

Three regions in particular are the long-standing cornerstones of TotalEnergies' strategy: Europe, the Company's decision-making center; the Middle East, where TotalEnergies is recognized as a preferred partner among producing countries and national companies; and Africa, with its substantial oil and gas production and Company-branded service stations.

The deep geographic roots of the Company and its partnerships built over time are real strengths for accelerating its operational ambitions and moving into the new businesses of renewables and electricity. Thus, TotalEnergies reinforces its presence on the American continent with major acquisitions in Brazil and the United States in 2022.

That global footprint yields the benefits that accrue from economies of scale for the Company's industrial, marketing and retail operations, and also ensures a detailed knowledge of end markets, giving TotalEnergies a competitive advantage in addressing the manifold needs of its customers worldwide.

### CUSTOMER PROXIMITY ACROSS THE WORLD

To cement its strong bond with its customers – both businesses and consumers – the Company strives to focus on close, effective and direct customer relationships. Beyond its sales of products and services, TotalEnergies aims to draw on its retail networks to make its Company-branded service stations "true community hubs," with a comprehensive array of services for users that encompass every form of energy and respect the environment.

In its renewables & electricity businesses, TotalEnergies intends to become integrated across the entire value chain and develop direct, personalized relationships with business and residential customers alike through the use of digital technology.

TotalEnergies is recognized for its know-how in customer service in France. In 2022, TotalEnergies' Consumer Services division won the "Best Customer Service of the year 2022" award, for the fourteenth year and the award Customer service of the year 2023 in the category Services to motorists(1), which makes the Company the most awarded company of this competition. TotalEnergies Electricité et Gaz France finished on the podium of multi award-winners brands in the field of Customer Experience in 2022 with the award Customer service of the year 2023 in the category of energy supplier for businesses(2), the Customer Relationship Podium (5th consecutive year), the CX Award in the category "Data and personalization" (2nd consecutive year), on the top of the awards received in 2021 (the Excellence Client award and the Qualiweb Award for the best online customer relationship).

Furthermore, TotalEnergies was the most awarded company in the field of customer relations in 2021, thus receiving the symbolic "2021 Awards Prize".

### SUSTAINABLE VALUE CREATION ALONGSIDE REGIONS AND COMMUNITIES

TotalEnergies' success in building and expanding partnerships worldwide can also be attributed to its strategy of generating value at the local level as part of its growth model. That commitment – carried out systematically and professionally – is a major competitive asset. Whether they target continued growth in LNG or renewable electricity generation, the partnerships with governments and local communities serve a critical function.

The Company maintains a comprehensive, integrated policy, rooted in dialogue with communities and public and private stakeholders, for supporting local growth and in-country value. It forges synergies among the various sources of value generation for host countries (employment, subcontracting, infrastructure, support for local industry, socioeconomic development projects, education, energy access, etc.) by capitalizing on the Company's industrial expertise. TotalEnergies intends to maintain this approach over the long term to ensure that its presence in these regions and the major projects it develops create shared prosperity.

### THE ABILITY TO COPE WITH GEOPOLITICAL UNCERTAINTY

In the face of political and geopolitical uncertainty, including tensions sparked by war and conflict, TotalEnergies intends to conduct its operations by leveraging its skills and expertise to benefit each host country, in compliance with applicable legislation and all international economic sanctions that may be in effect. The Company also ensures that the amount of capital invested in the most sensitive countries remains at a level that limits its exposure in each country.

## 1.8.5 An ongoing dialogue with our stakeholders

In TotalEnergies' view, dialogue with its internal and external stakeholders is essential for the Company to conduct its business responsibly and integrate the long-term challenges of sustainable development in its strategy and policies.

This dialogue contributes to the identification of the main risks and impacts of the Company's activities, and more broadly to a better understanding of changing trends and the main societal expectations of each of the major categories of stakeholders. It is also a prerequisite to ensuring that the Company is firmly integrated in its host regions, as well as an effective tool for identifying ways to generate value at the local level.

TotalEnergies believes that transparency is an essential principle of action in building a trust-based relationship with its stakeholders and ensuring that the Company is on a path of continuous improvement.

Pending the adoption of an international, standardized non-financial reporting framework, TotalEnergies is making every effort to report its performance on the basis of the various commonly used ESG reporting frameworks. As such, TotalEnergies refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available on the TotalEnergies website. TotalEnergies' also includes in its reporting the World Economic Forum's core indicators(3) (refer to chapter 11). Furthermore, it also follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting.

(1) Category Services to motorists - BVA study. Viséo CI - May to July 2022.
(2) Category business energy supplier - BVA study. Viséo CI.
(3) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

Wanting to provide the performance indicators to its stakeholders, TotalEnergies publishes additional information on its website on the pages dedicated to its sustainable development approach.

TotalEnergies has structured its dialogue processes with its stakeholders at different levels of the Company, through relays within the organization, requirements included in internal reference frameworks, the deployment of a methodology for conducting local dialogue and a dedicated attention to the professionalization of the teams responsible for fostering that dialogue.

Those measures are designed to develop a long-term, trust-based relationship founded on principles of respect, attentiveness, constructive dialogue, proactive engagement and transparency, consistent with the legitimate need for confidentiality as appropriate. They also ensure that stakeholder warnings or grievances can be gathered and addressed quickly and that potential controversial situations are defused.

Each group of stakeholders (employees, employee representatives, customers, investors, shareholders and the financial sector, government officials, suppliers, academics, NGOs and civil society, and the media) has a single point of contact at the corporate level, responsible for responding to their requests, keeping them informed and maintaining an ongoing dialogue in formats appropriate to each concern.

Those stakeholder liaisons also provide advice and support to Company subsidiaries when needed. The One MAESTRO framework provides that subsidiaries should conduct a stakeholder mapping and engage in a structured, ongoing process of dialogue with stakeholders to keep them informed, hear and address their concerns and expectations, report on mitigation actions or compensation, measure their satisfaction and identify ways the subsidiaries can improve their community outreach. This commitment to local dialogue puts special emphasis on residents and communities located near Company facilities.

To help guide TotalEnergies' transformation into a multi-energy company and, more broadly, offer concrete evidence that the Company is fully engaged in the challenges facing society, TotalEnergies intends to pursue these initiatives and launch further projects in 2023 to create an even more strategic and proactive process of stakeholder relations.

# 1.9 Our governance

## 1.9.1 A fully committed Board of Directors

### A MOBILIZED BOARD OF DIRECTORS SERVING THE COMPANY'S AMBITION

The Board of Directors defines TotalEnergies' strategic vision and supervises its implementation in accordance with the corporate interest of the Corporation, by taking into consideration the social and environmental challenges of its business activities.

It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the Company's operations. It monitors the management of both financial and non-financial matters and ensures the quality of the information provided to shareholders and financial markets.

The Board of Directors is assisted by the four committees it has created: the Audit Committee, the Governance and Ethics Committee, the Compensation Committee, and the Strategy & CSR Committee. The duties of the Board of Directors and of the Committees are described in point 4.1.2 of chapter 4.

The composition of the Board of Directors reflects the diversity and complementary of experience, skills, nationalities and cultures that are critical to addressing the interests of all of the Company's shareholders and stakeholders.

**Composition as of March 15, 2023**

| | | | | | |
|---|---|---|---|---|---|
| **14** | **1** | **82%** | **6 years** | **45.5%** | **5** |
| directors | Lead Independent Director | independent directors[(a)] | Average years of service on the Board | of women[(b)] | nationalities represented |

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3). For more information, refer to point 4.1.1.4 in chapter 4.

(b) Excluding the directors representing employees in accordance with Article L. 225-27-1 of the French Commercial Code and the director representing employee shareholders in accordance with Articles L. 225-23 and L. 22-10-5 of the French Commercial Code.

**Complementary skills to meet strategic challenges of the Company**

The Governance and Ethics Committee conducts its work within the framework of a formal procedure so as to ensure that the directors' skills are complementary and their backgrounds are diverse, to maintain an overall proportion of independent members that is appropriate to the Corporation's governance structure and shareholder base, to allow for a balanced representation of women and men on the Board, and to promote an appropriate representation of directors of different nationalities. These principles underpin the selection process for directors.

As part of a process undertaken for several years, the composition of the Board of Directors has changed significantly since 2010 to achieve better gender balance and an openness to more international profiles.

### Skills of the directors

| | Patrick Pouyanné | Jacques Aschenbroich | Patricia Barbizet | Marie-Christine Coisne-Roquette | Jérôme Contamine | Lise Croteau | Mark Cutifani | Romain Garcia-Ivaldi | Glenn Hubbard | Maria van der Hoeven | Anne-Marie Idrac | Emma de Jonge | Jean Lemierre | Angel Pobo | Total | Total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Corporate management | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | ✓ | | 9 | 64% |
| International | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | 11 | 79% |
| Finance, accounting, economics | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | | 9 | 64% |
| Risk management | | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | ✓ | | 6 | 43% |
| Governance | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | 12 | 86% |
| Climate - sustainable development | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | 9 | 64% |
| Industry | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | 8 | 57% |
| Energy | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | 8 | 57% |
| Public affairs, geopolitics | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | 8 | 57% |

The competence of directors are detailed in points 4.1.1.1 and 4.1.1.5 of chapter 4.

### A Board committed to meeting the Company's strategic priorities, with dedicated and involved directors

**9**
meetings of the Board of Directors
98.4% attendance

**1**
executive session chaired by the Lead Independent Director

**7**
meetings of the Audit Committee
100% attendance

**4**
meetings of the Governance and Ethics Committee
94.4% attendance

**3**
meetings of the Compensation Committee
100% attendance

**4**
meetings of the Strategy & CSR Committee
100% attendance

#### Main activities of the Board of Directors in 2022

**Major investments**

- Approval of the acquisition of Clearway Energy Group, US renewable energy player
- Approval of the acquisition by TotalEnergies of 25% of Adani New Industries Limited (ANIL) with a view of producing and commercializing green hydrogen in India at an industrial scale
- Approval of the participation in the project for the extension of the giant gas North Field project in Qatar
- Approval of the acquisition of Casa dos Ventos Holding, Brazil's leading wind energy developer
- Approval of the participation of TotalEnergies in the expansion project of a petrochemical complex downstream of the Satorp refinery in Saudi Arabia
- Approval of an investment project in LNG in the United States
- Acquisition project of SARB and Umm Lulu concessions held by CEPSA at Abu Dabi

**Audit – Risks**

- Update on the 2021 internal audit and 2022 audit plan
- Approval of the new Company's tax policy
- 2023 insurance policy
- Presentation of the work of the TotalEnergies Risk Management Committee

**Strategy – CSR**

- Regular updates on the situation in Russia and in particular update on Russian assets on March 16, 2022; update on the regimes of sanctions adopted against Russia on April 27, 2022; update on the activities in Russia; update on the project to withdraw the two Company's representatives from the Board of Directors of the Novatek company
- The Company's 5-year plan
- Shareholder return policy
- Sustainability & Climate – Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition with respect to sustainable development and energy transition towards carbon neutrality and its related targets by 2030 and complementing this ambition
- Strategic seminar: energy markets-geopolitics; TotalEnergies' portfolio; mobility and new energies; integrated electricity business model
- Directors' training regarding climate: "Climate Fresco"
- The Corporation's policy on gender equality and pay equity
- Ethics and Compliance Policy and review of ethics and compliance activities in the Company

**Governance**

- Appointment process of the director representing employee shareholders
- Exercise conditions of the office of the director representing employee shareholders
- Terms of mandate of directors and Comittees members
- Succession plan
- 2023 work program for the Board of Directors

**Compensation**

- Determination of the compensation for the Chairman and Chief Executive Officer and directors for the 2021 fiscal year
- Compensation policy for the Chairman and Chief Executive Officer and directors for the 2022 fiscal year
- 2022 performance share plan
- 2022 share capital increase reserved for employees

## A UNIFIED MANAGEMENT STRUCTURE, TAILORED TO THE COMPANY'S REQUIREMENTS

Mr. Patrick Pouyanné has been Chairman and Chief Executive Officer of TotalEnergies since December 19, 2015. His terms of office as Chairman of the Board of Directors and as Chief Executive Officer were renewed for the duration of his term of office as director, *i.e.*, until the Shareholders' Meeting called to approve in 2024 the financial statements for the 2023 fiscal year.

At its meeting on March 17, 2021, the Board of Directors decided on the proposal of the Governance and Ethics Committee to keep a unified management structure of Chairman and Chief Executive Officer, in the best interests of the Corporation.

This management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and an increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

The unity of the power to manage and represent the Corporation is also particularly well regulated by the Corporation's governance.

The balance of power is established through the quality, complementarity, independence and full involvement of the directors whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

The balance of power within the governance bodies is also established through the Articles of Association and the Board's Rules of Procedure, which define notably the means and prerogatives of the Lead Independent Director.

The Board's rules of procedure provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including verbally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

### THE LEAD INDEPENDENT DIRECTOR, REFLECTING A BALANCED DISTRIBUTION OF POWER

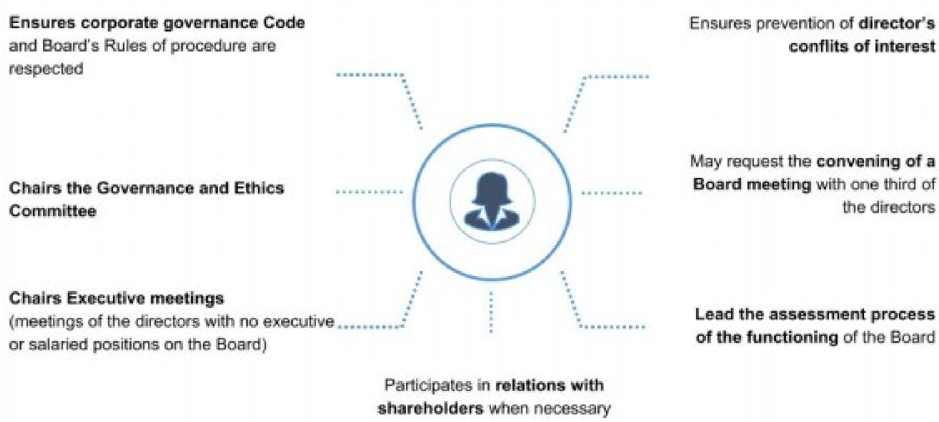
Listening to investors and stakeholders, the Board of Directors pays special attention to the balance of power within the Company. It is in this context that the Board of Directors in 2015 amended the provisions of its rules of procedure to provide for the appointment of a Lead Independent Director in the event that the positions of Chairman of the Board of Directors and Chief Executive Officer are combined.

The Lead Independent Director's duties, resources and prerogatives which are described in the Rules of Procedure of the Board are extensive:

- the Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board of Directors. In her relations with shareholders, the Lead Independent Director has the possibility, with the approval of the Chairman and Chief Executive Officer, to meet with shareholders on corporate governance issues, a practice that has already been used on several occasions,
- in her relations with the Chairman and Chief Executive Officer, the Lead Independent Director contributes to the agenda of Board meetings and has the possibility to request a meeting of the Board of Directors and to share opinions on major issues,
- in her contribution to the work of the Board of Directors, the Lead Independent Director chairs meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention. She is in charge of the assessment and monitoring of the functioning of the Board, the prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons.

Since 2016, the Lead Independent Director has organized executive sessions with the directors who do not hold executive or salaried positions on the Board of Directors, during which the directors may discuss the Company's strategic challenges and working practices. The directors are also in regular contact with the members of the management team, including members of the Executive Committee during Board meetings and operational managers during Company site visits. Through those interactions between directors and managers, the directors gain a practical understanding of the Company's activities.

**The duties of the Lead Independent Director**




### A COMPENSATION POLICY OF THE EXECUTIVE DIRECTOR ALIGNED WITH THE COMPANY'S STRATEGIC TARGETS

The compensation awarded to the Chairman and Chief Executive Officer is indexed to key performance indicators used to measure the success of the Company's strategy.

In order to determine a compensation aligned with the Company's performance, the variable portion of the Chairman and Chief Executive Officer's compensation takes into account both quantifiable targets (financial, Safety and GHG emission evolution parameters) and qualitative criteria (personal contribution).

Conscious of the importance of climate change challenges, the Board of Directors decided, starting in 2019, to change the criteria for determining the variable portion of the Chairman and Chief Executive Officer's compensation, in particular by integrating a quantifiable criterion related to the change in GHG emissions (Scope 1+2) from operated facilities. This criterion supplements those introduced in 2016 to better take into account the achievements of Corporate Social Responsibility (CSR) and HSE targets of the Company.

The Board of Directors has a proactive approach to this issue. Refer to point 4.3. of chapter 4.

## 1.9.2 An Executive Committee entrusted with implementing the Company's strategy

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Company.

It implements the strategic vision defined by the Board of Directors and authorizes the corresponding capital expenditures, subject to the Board of Directors' approval for investments exceeding 3% of shareholders' equity and any significant transaction outside the scope of the company's stated strategy, and subject to the Board's review for investments involving amounts exceeding 1% of shareholders' equity.

The Executive Committee meets as often as necessary and generally twice a month.

## 1.9.3 An operational structure built around the Company's business segments

As of December 31, 2022, the Company's organization was based on four business segments:

- an Integrated Gas, Renewables & Power segment comprising the integrated gas value chain (including upstream and midstream LNG activities), Renewables & Electricity,
- an Exploration & Production segment that encompasses oil and natural gas exploration and production operations in about 50 countries,
- a Refining & Chemicals segment constituting a major production hub comprising the activities of refining, petrochemicals and specialty chemicals. This segment also handles oil supply and trading activities and shipping,
- a Marketing & Services segment that includes marketing activities for petroleum products as well as the related supply and logistics operations.

Starting in the first quarter of 2023, iGRP segment results will be presented in two segments:

- Integrated LNG covering LNG production and trading activities as well as biogas and hydrogen activities,
- Integrated Power covering electricity generation, storage, trading, and B2B B2C gas and power marketing activities.

Since January 2022, the OneTech branch gathers all the technical and R&D expertise and is at the heart of the transformation of TotalEnergies into a multi-energy company.

The Holding's corporate entities include Finance, Legal, Communications, Security, People & Social Engagement and Strategy & Sustainability divisions:

- Strategy-Sustainability comprises Health, Safety and the Environment, Audit & Internal Control, Public Affairs, Strategy & Markets, Sustainability & Climate, Information Systems divisions and the Digital Factory entity,
- People & Social Engagement includes Human Resources, Citizen Engagement and France, which represents the Company in France to national and regional elected officials.

The TotalEnergies Global Services provides support for activities in various domains (IT, accounting, human resources, general resources, etc.).

TotalEnergies SE is the parent company. It acts as a holding company and drives the Company's strategy.

The Company's operations are conducted through subsidiaries that are directly or indirectly owned by TotalEnergies SE and through interests in joint ventures that are not necessarily controlled by TotalEnergies. TotalEnergies SE has three secondary establishments in France, located in Lacq, Pau and Paris. It also has one branch office in Oman.

Corporate name: TotalEnergies SE

Headquarters: 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France

Registered in Nanterre: RCS 542 051 180

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68

EC Registration Number: FR 59 542 051 180

Date of incorporation: March 28, 1924

Term of the Corporation: extended for 99 years from March 22, 2000

Fiscal year: from January 1 to December 31 of each year

APE Code (NAF): 7010Z

totalenergies.com

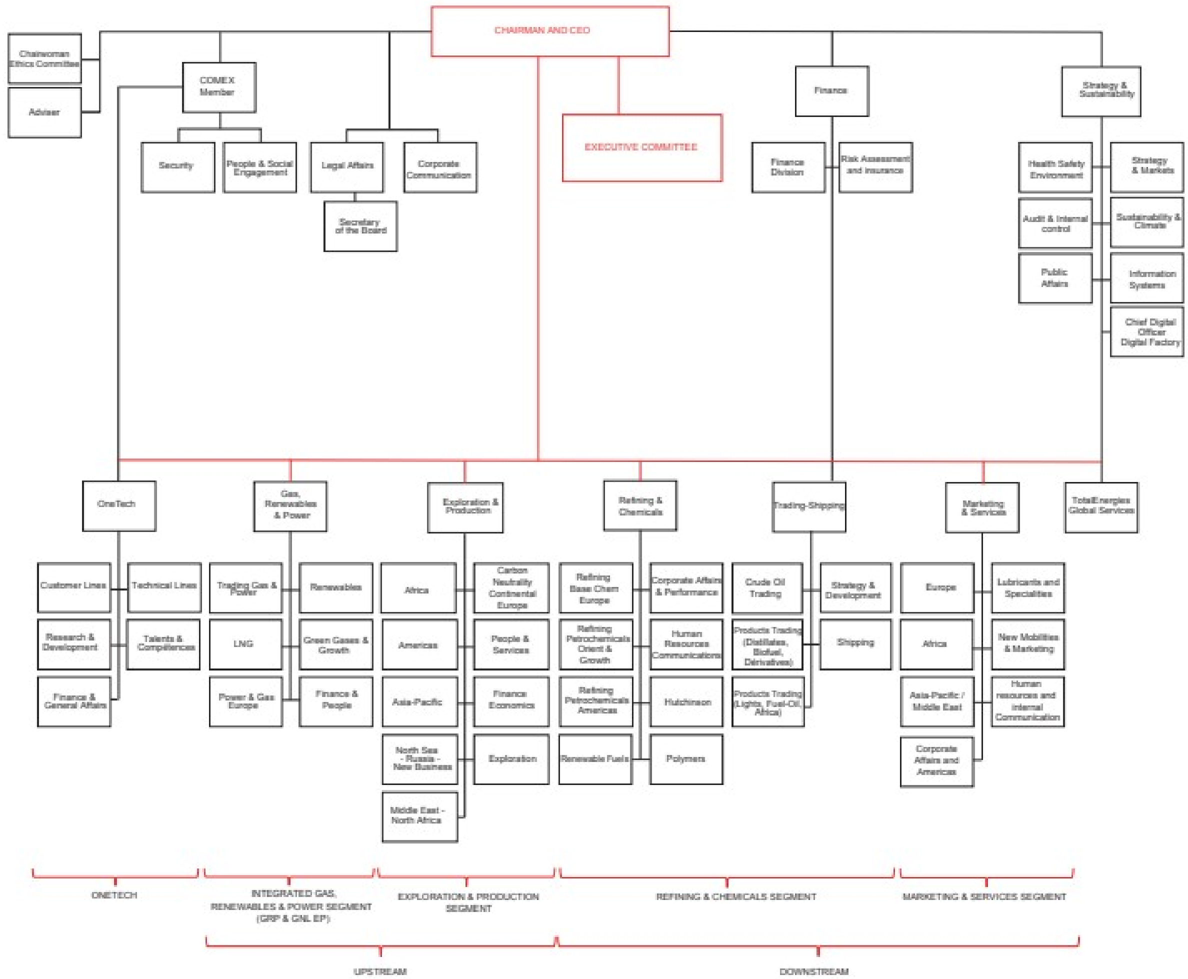
The scope of consolidation of TotalEnergies SE as of December 31, 2022, consisted of 1,149 companies, including 169 equity companies. The principles of consolidation are described in Note 1.1 to the Consolidated Financial Statements and the list of companies included in the scope of consolidation can be found in Note 18 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

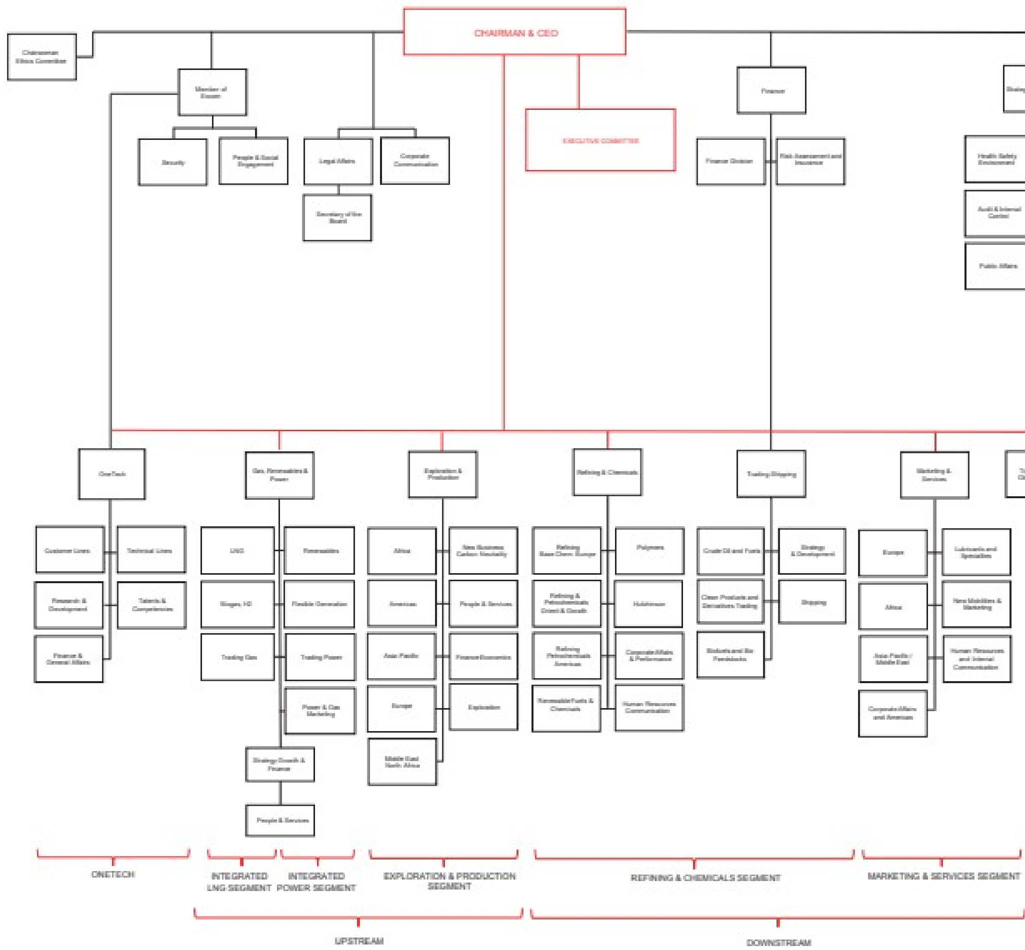
TotalEnergies holds interests in a limited number of companies that issue financial instruments in France or abroad or whose financial instruments are listed in France or abroad. These companies are mainly the Company's financing vehicles (TotalEnergies Capital, TotalEnergies Capital International, TotalEnergies Capital Canada Ltd) or the operational subsidiaries in its business segments, in particular in Africa, such as TotalEnergies EP Gabon[1]. TotalEnergies also holds minority interests in other companies. The changes in the composition of the Company in 2022 are explained in Note 2 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). During fiscal year 2022, TotalEnergies SE did not acquire any interest in companies with their registered office in France representing more than one twentieth, one tenth, one fifth, one third or one half of the capital of these companies or obtained control of such companies.

(1) TotalEnergies EP Gabon is a company under Gabonese law, listed on Euronext Paris. TotalEnergies holds 58.28%, the Republic of Gabon holds 25% and the public holds 16.72%.

## Organization chart as of January 1, 2022



## Organisation chart as of January 1, 2023




## New reporting structure as of January 1, 2023

In order to give a better readability of TotalEnergies' growth stratregy regarding LNG and electricity/reneables, the Company will report separately the contributions from Integrated LNG and Intergrated Power segments, previously together in the iGRP segment.

### 1.9.4 Risk management system

TotalEnergies implements a comprehensive risk management system that is an essential factor in the deployment of its strategy. This system relies on an organization at Company level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of the goals as well as the analysis of management systems.

The Executive Committee is responsible for identifying and analyzing internal and external risks that could impact the achievement of the Company's objectives. For this purpose, it is assisted by the TotalEnergies Risk Management Committee (TRMC), which makes sure that the Company has mapped the risks to which it is exposed and that efficient risk management systems are suitable.

The TRMC relies notably on the work done by the business segments and functional divisions. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain cross-functional risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control through the Executive Committee's approval of investments and expenses that exceed defined thresholds. The Risk Committee (Corisk) is tasked with reviewing these projects in advance, and in particular, with verifying the analysis of the various associated risks.

The Board of Directors' Audit Committee is responsible for monitoring the effectiveness of the risk management systems as well as of the internal audit. The audit plan, based on an analysis of risks and the risk management systems, is submitted annually to the Executive Committee and the Audit Committee.

For a detailed description of how the internal control and risk management procedures are structured, refer to point 3.3 of chapter 3.

## 1.10 Our financial performance

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

## 1.10.2 Liquidity and capital resources

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

### BORROWING REQUIREMENTS AND FUNDING STRUCTURE

The Company's policy consists in incurring long-term debt at a floating or fixed rate, depending on its general corporate needs and the interest rate environment at the time of issue, mainly in dollars or euros. Long-term interest rate and currency swaps may be entered into for the purpose of hedging bonds at the time of issuance, synthetically resulting in the incurrence of variable or fixed rate debt. In order to partially alter the interest rate exposure of its long-term indebtedness, the Company may also enter into long-term interest rate swaps on an ad-hoc basis.

Long-term financial indebtedness is generally raised by central corporate treasury entities either directly in dollars or euros, or in other currencies exchanged for dollars or euros through currency swaps at issuance, in accordance with the Company's general corporate needs.

As of December 31, 2022, the Company's long-term financial debt, after taking into account the effect of currency and interest rate swaps, was 91% in US dollars and 21% at floating rates; as of December 31, 2021, these ratios were 94% and 27%, respectively.

In addition to its ongoing bond issuance activity, TotalEnergies SE regularly issues perpetual subordinated notes in one or several tranches and also regularly launches tender offers on some of its perpetual subordinated notes as part of their early refinancing. In January 2022, TotalEnergies SE issued €1.75 billion of perpetual subordinated notes in two tranches in order to refinance, at its first call option date in May 2022, the €1.75 billion of perpetual subordinated notes issued in May 2016. Thus, the outstanding amount of perpetual subordinated notes issued by TotalEnergies SE as of December 31, 2022, stood at €12.25 billion (unchanged compared to December 31, 2021). The details of the portfolio of perpetual subordinated notes issued by TotalEnergies SE is disclosed in Note 9 of chapter 8, in the paragraph "Issuances of Perpetual subordinated notes".

In accordance with IAS 32 provisions "*Financial instruments – Presentation*" and given their characteristics (notably the absence of mandatory repayment and no obligation to pay a coupon except under certain circumstances specified into the documentation of the notes) the perpetual subordinated notes issued by TotalEnergies SE were accounted for as equity.

In addition, on November 25, 2015, TotalEnergies SE issued a $1.2 billion instrument combining cash-settled convertible bonds indexed on TotalEnergies' share performance with the purchase of stock options hedging the economic risk related to such indexation. The combined instrument is effectively a non-dilutive synthetic issuance equivalent to a standard bond. This instrument was reimbursed at maturity in December 2022.

TotalEnergies has established standards for market transactions under which any banking counterparty must be approved in advance, based on an assessment of the counterparty's financial solidity (multi-criteria analysis including notably a review of its Credit Default Swap (CDS) level, credit ratings from Standard & Poor's and Moody's, which must be of high standing, and general financial situation).

An overall credit limit is set for each authorized financial counterparty and is allocated amongst the affiliates and the TotalEnergies central treasury entities, according to the financial needs.

To reduce the market valuation risk on its commitments, in particular relating to derivative financial instruments, the Treasury Department has entered into margin call agreements with its counterparties, in compliance with applicable regulations. Moreover, since December 21, 2018 and pursuant to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate hedging swap (excluding cross currency swaps) entered into by a TotalEnergies entity is now subject to central clearing.

Finally, since September 1, 2021, TotalEnergies has been applying Delegated Regulation (EU) N° 2016/2251 (supplementing Regulation (EU) N° 648/2012), regarding initial margin calls on certain OTC derivatives not cleared by a central counterparty.

## CONDITIONS OF USE OF EXTERNAL FINANCINGS

As of December 31, 2022, the aggregate amount of the main committed credit facilities granted by international banks to TotalEnergies SE or some of its subsidiaries was $18,963 million (compared to $12,314 million as of December 31, 2021), of which $18,510 million was unutilized (compared to $11,591 million unutilized as of December 31, 2021).

TotalEnergies SE has committed credit facilities granted by international banks enabling it to benefit from significant liquidity reserves. As of December 31, 2022, these credit facilities amounted to $17,527 million (compared to $10,679 million as of December 31, 2021), of which $17,527 million was unutilized (compared to $10,679 million unutilized as of December 31, 2021).

The agreements underpinning credit facilities granted to TotalEnergies SE do not contain conditions related to the Corporation's financial ratios, to its credit ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position.

Credit facilities granted to the companies of the Company other than TotalEnergies SE are not intended to fund the Company's general corporate purposes; they are intended to fund either general corporate purposes of the borrowing affiliate, or a specific project.

## ANTICIPATED SOURCES OF FINANCING

Investments, working capital, dividend payments and buybacks of its own shares by the Corporation are financed by cash flow from operating activities, asset disposals and, if necessary, by net borrowings.

For the coming years and based on the current financing conditions available in the financial markets, the Corporation intends to maintain this policy.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

# 2

# Business overview for fiscal year 2022

## 2.1 Integrated Gas, Renewables & Power segment

TotalEnergies' strategy aims to transform itself into a multi-energy company by profitably growing its portfolio of liquefied natural gas (LNG) and its production of electricity, the two fastest growing energy markets[1], as well as expanding in decarbonized gas (biogas and hydrogen). The Integrated Gas, Renewables & Power (iGRP) segment is driving TotalEnergies' ambition in the integrated activities of Liquefied Natural Gas and renewable gases (Integrated LNG) as well as in the integrated electricity chains (Integrated Power). The execution of a profitable growth strategy in these promising businesses is helping to achieve TotalEnergies' ambition to reach carbon neutrality (net zero emissions) by 2050 together with society.

The energy transition requires, on the one hand, the electrification of uses through the development of the production of low carbon electricity, and on the other hand, a move towards natural gas and low carbon gases for thermal uses that cannot switch to electricity (long-distance transport).

**Main indicators**

| | | | | | |
|---|---|---|---|---|---|
| **$10.8 B**<br>DACF[2] in 2022 | **48 Mt**<br>Volumes of LNG sold in 2022 | **21 GW**<br>Gross installed power generation capacities end-2022 of which **16.8 GW** from renewable source[3] | **33.2 TWh**<br>Net production of electricity in 2022 including **10.4 TWh** from renewable sources | **Over 6 M**<br>Electricity client sites in 2022 | **$4 B**<br>Net investments in low-carbon energies in 2022 |

**Main objectives and ambitions**

| | | | | | |
|---|---|---|---|---|---|
| **[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED]** | **+3%/year**<br>LNG sales growth (excluding Russia) between 2021 and 2027 | **35 GW**<br>Gross installed renewable power generation capacities in 2025<br>**100 GW** in 2030 | **> 50 TWh**<br>Net production of electricity in 2025<br>**~130 TWh** in 2030 | **10 M**<br>Electricity client sites in 2030 | **$5 B**<br>Net investments planned in low carbon energies in 2023 |

**Integrated LNG : Hydrocarbon production and LNG sales**

| Hydrocarbon production | 2022 | 2021 | 2020 |
|---|---|---|---|
| iGRP *(kboe/d)* | 469 | 529 | 530 |
| Liquids *(kb/d)*[a] | 53 | 63 | 69 |
| Gas *(Mcf/d)* | 2,267 | 2,541 | 2,519 |

| LNG *(Mt)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Overall LNG sales | 48.1 | 42.0 | 38.3 |
| *Including sales from equity production*[b] | *17.0* | *17.4* | *17.6* |
| *Including sales by TotalEnergies from equity production and third party purchases* | *42.8* | *35.1* | *31.1* |

(a) Including condensate and NGLs, associated to the gas production.
(b) The Company's equity production may be sold by TotalEnergies or by joint ventures.

Aggregate LNG sales increased by 15% in 2022, supported by the strong increase in European LNG imports.

(1) Source : IHS.
(2) DACF = debt adjusted cash flow. The operating cash flow before working capital changes without financial charges of the segment is defined as a cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to leases, excluding the impact of contracts recognized at fair value for the segment and including capital gains on the sale of renewable projects.
(3) Including 20% of gross capacities from Adani Green Energy Ltd from first quarter 2021. Including 50% of gross capacities of Clearway Energy Group from third quarter 2022.

TotalEnergies

**Integrated Power**

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Solar *(GW)* | 11.7 | 8.0 | 5.6 |
| Wind *(GW)* | 4.9 | 2.0 | 1.3 |
| Storage and hydroelectricity *(GW)* | 0.2 | 0.2 | 0.1 |
| **Gross installed renewable power generation capacities *(GW)*[(a)(b)(c)]** | **69.0** | **43.0** | **28.6** |
| *of which installed capacity* | 16.8 | 10.3 | 7.0 |
| *of which capacity under construction* | 6.1 | 6.5 | 5.0 |
| *of which capacity under development* | 46.0 | 26.2 | 16.6 |
| **Renewable power generation capacities with PPA *(GW)*[(a)(b)(c)]** | **33.4** | **28.0** | **17.5** |
| Combined-cycle gas power plants – Europe[(d)] *(GW)* | 4.2 | 4.2 | 3.6 |
| Combined-cycle gas power plants – Rest of the world (Taweelah, UAE) *(GW)* | 1.6 | 1.6 | 1.6 |
| Net power production *(TWh)*[(e)] | 33.2 | 21.2 | 14.1 |
| *including from renewables (TWh)* | 10.4 | 6.8 | 4.0 |
| Clients power – BtB and BtC *(millions)*[(a)] | 6.1 | 6.1 | 5.6 |
| Clients gas – BtB and BtC *(millions)*[(a)] | 2.7 | 2.7 | 2.7 |
| Sales power – BtB and BtC *(TWh)* | 55.3 | 56.6 | 47.3 |
| Sales gas – BtB and BtC *(TWh)* | 96.3 | 101.2 | 95.8 |

(a) Data at end of period.
(b) Including 20% of Adani Green Energy Ltd. gross capacities from first quarter 2021.
(c) Including 50% of Clearway Energy Group from third quarter 2022.
(d) Including the refinery cogeneration units of Normandy and Anvers.
(e) Solar, wind, hydroelectric and gas turbine plants.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

## 2.1.1 Presentation of the segment

To provide more affordable, cleaner and accessible energy to the largest number of people, TotalEnergies is implementing an integrated strategy of profitable growth in the liquefied natural gas and electricity segments. Between 2021 and 2030, TotalEnergies' energy production (excluding Russia), is expected to increase by 4%/y from ~14 to ~20 PJ/d[(1)]. Half of that growth should come from electricity, primarily from renewable sources, and the other half from LNG.

Transition to carbon neutrality (net zero emissions) in 2050, together with society, involves a massive electrification of energy uses combined with a strong growth in renewable energies to meet this demand for electricity. Gas remains key for the energy transition to support the development of intermittent renewables and rapidly reduce $CO_2$ emissions through switching from other fossil fuels such as coal that emit significantly more.

(1) Source: TotalEnergies 2022 Strategy & Outlook.

Gas, and particularly LNG, as well as electricity are therefore expected to grow faster than other energies. The impact of the invasion of Ukraine by Russia on energy markets highlighted Europe's structural dependence on Russian gas pipeline imports. The need to replace all or part of Russian gas has created strong demand for LNG in Europe (+48 Mt in 2022), in a context of limited global LNG supply (+21 Mt) and has generated strong pressures on gas and electricity prices. Thus, both the energy transition made necessary by climate change and the short-term imperatives resulting from the invasion of Ukraine by Russia comfort TotalEnergies' strategy in the areas of LNG and low carbon energies.

In the **LNG** activities ***(Integrated LNG)***, TotalEnergies aims to take full advantage of its position as the world's third-largest player[1] and intends to continue to develop integrated positions all along the value chain. It plans to increase its LNG sales by 3%/an by 2027 (excluding Russia), relying in particular on supplies from assets in which TotalEnergies is a shareholder, such as in the United States and Qatar.

The diversity and flexibility of TotalEnergies' LNG portfolio has enabled it to play a key role in Europe's gas supply in a context impacted by the invasion of Ukraine by Russia, with LNG sales in Europe (European Union and United Kingdom) amounting to 26.5 Mt/y vs 16.1 Mt/y in 2021. In Europe and India, TotalEnergies is integrated in the natural gas value chain, up to distribution to the end customer. TotalEnergies is also active in the trading of LNG and complementary products (liquefied petroleum gas, petcoke and sulfur).

TotalEnergies also intends to increase **biogas** production, with a goal of 20 TWh/y especially in Europe and in the US. TotalEnergies has already a project portfolio with a gross installed production capacity of 1,1 TWh/y in March 2023. In addition to the use of LNG, in its REPowerEU plan to end dependence on Russian gas, the European Commission has doubled its ambitions for biomethane production compared to its "Fit for 55" roadmap, to 35 Bcm/y by 2030.

TotalEnergies is also positioning itself in the production of **low carbon hydrogen**, starting by meeting the needs of its own refineries, and then setting the goal of being a pioneer in the mass production of low-cost low carbon hydrogen.

In **Electricity and Renewables *(Integrated Power)***, TotalEnergies implements a different strategy on deregulated electricity markets (mainly in Europe, the United States and Brazil) and on regulated markets.

- On deregulated markets, TotalEnergies intends to keep around 30% of its production exposed to market fluctuations by relying on its storage capacities and flexible generation to complement the intermittent nature of renewable electricity. The Company also intends to strengthen its trading activities in order to maximize the value of its production. In Europe, its strategy is based on building an integrated position in electricity, by being present from production to marketing to the end customer.
- On regulated markets, where there is no need to arbitrate between contractual prices and market prices, TotalEnergies relies on its specialized subsidiaries (TotalEnergies Renewables International and Total Eren in particular) to develop its portfolio of renewable power generation capacities (solar and wind). In certain high-growth countries, TotalEnergies is following a policy of strategic alliances with local players. In India in particular, TotalEnergies acquired in January 2021 a 20% stake in Adani Green Energy Ltd for $2 billion. That acquisition follows the acquisition by TotalEnergies in February 2020 of a 37.4% equity interest in the capital of Adani Gas Ltd.

The Company's objective is to reach gross installed renewable power generation capacities of 35 GW by 2025 and 100 GW by 2030, and to become one of the world's top five producers of renewable electricity (wind and solar).

To achieve this ambition and leverage its international presence, the Company has established a global network of renewable energy developers, called "Renewables Explorers", in more than 50 countries where it is already present and where renewables have a high potential for growth. These experienced developers are tasked with initiating and/ or speeding up the development of renewable energy projects in their countries and building strong partnerships with local developers.

**Offshore wind energy** is also an axis of development for renewables. TotalEnergies wants to take part in the growth of this sector by drawing on its experience, its know-how in the offshore oil and gas sector and its ability to manage large projects and to raise the necessary funding. In 2022, TotalEnergies won a first tender in offshore wind in Scotland for 2 GW, a maritime lease area to develop an offshore wind farm of over 3 GW off New York and New Jersey on the US East Coast, plus a maritime lease area to develop a 1 GW wind farm off the coast of North Carolina. The Company therefore has gross offshore wind power generation capacities, in construction or development, representing over 11 GW.

TotalEnergies is also committed, via its Saft Groupe affiliate, to expand its capacities in stationary **electricity storage** in order to support the growth in renewables, by nature intermittent, but also since 2021, in the production of batteries for electrical mobility via the joint venture ACC with Stellantis and Mercedes-Benz.

TotalEnergies is also present in the rapidly expanding segment of **decentralized electricity generation**, through its 100%-owned subsidiary TotalEnergies Renewables Distributed Generation. At the end of 2022, TotalEnergies Renewables Distributed Generation has passed the symbolic threshold of 500 MW of gross installed capacity worldwide and 1 GW of secured projects.

## 2.1.2 Integrated LNG

The worldwide LNG market volumes grew by more than 7%/y[2] on average between 2015 and 2021, thanks to the switch from coal to gas. In the context of the invasion of Ukraine by Russia, this growth remained at 6% in 2022.

LNG played a crucial role in 2022 in European gas supply in a context of reduced gas supply by pipeline from Russia: Europe (European Union, United Kingdom and Norway) imported 115 Mt[3] of LNG in 2022, compared with 67 Mt in 2021.

As a pioneer in the LNG industry and thanks to its solid, diversified positions, TotalEnergies has become the world's third-largest player in LNG (the second-largest private player), with a global portfolio of 48 Mt/y and a global market share[4] of about 12% in 2022.

TotalEnergies plans to continue its development of an integrated value chain in LNG, which is a key component of its strategy.

(1) Second largest private player, third player including QatarEnergy ; Company data.
(2) Source: S&P Global, IHS Global LNG Trade Data 2022.
(3) Source: S&P Global, IHS Global LNG Trade Data 2022.
(4) Source: based on a global market size of 400 Mt in 2022 reported by IHS Markit.

TotalEnergies is strengthening its presence across that entire chain, from upstream activities, thanks mainly to its interests in liquefaction plants located in the major production areas, to midstream activities, such as transport, regasification, and trading culminating in distribution to end customers. TotalEnergies' production is expected to grow by 40% between 2021 and 2030 (excluding Russia), thanks in particular to projects already approved (Qatar NFE, ECA, NLNG T7) or under study (Cameron Phase 2, Qatar NFS, Papua LNG).

The LNG sold by TotalEnergies on worldwide markets comes in part from equity LNG production in natural gas fields and condensates or in liquefaction plants of which the subsidiaries are shareholders (refer to point 2.1.2.1 of this chapter). It also comes from contracts concluded with third parties (refer to point 2.1.2.2 of this chapter). TotalEnergies' LNG sales are expected to grow by 3%/y between 2021 and 2027 (excluding Russia).

**An integrated player with a global portfolio**


In response to the issue of methane emissions, TotalEnergies has already reduced the methane intensity to below 0.1% of the gas produced on its operated gas facilities. The Company has the objective to reduce methane emissions from its operated facilities by 50% between 2020 and 2025, then by 80% between 2020 and 2030[(1)].

## 2.1.2.1 LNG PRODUCTION AND LIQUEFACTION

TotalEnergies' equity share of LNG production stood at 17.0 Mt in 2022 compared to 17.4 Mt in 2021 and 17.6 Mt in 2020.

LNG production declined by 2% over the year, despite the restart of Snøhvit in Norway in the second quarter 2022. This decline was due to the end of the Qatargas 1 operating license and supply issues at Nigeria LNG.

The growth in LNG production is expected to resume over the coming years, due to the liquefaction projects under construction (Mexico, United States, Nigeria and Qatar) or under study (Papua New Guinea and Qatar).

The information below describes the main development, production and liquefaction activities of the iGRP segment, presented by geographical area. The capacities are expressed on a 100% basis, regardless of TotalEnergies' interest in the asset.

### AFRICA (EXCLUDING NORTH AFRICA)

In **Nigeria**, TotalEnergies holds a 15% interest in Nigeria LNG (NLNG), whose main asset is a liquefaction plant with a total capacity of 22 Mt/y. In late 2019, NLNG's shareholders approved the launch of a plant extension project for an additional capacity of 7.6 Mt/y. NLNG signed an engineering, procurement and construction (EPC) contract for the extension in May 2020. This project is currently being implemented. TotalEnergies is also present on the onshore fields of OML 58 block (40%, operator) as part of its joint venture with the Nigerian National Petroleum Corporation Ltd (NNPC), which has been supplying gas to NLNG for two decades. The OML 58 onshore fields also supply gas to the Nigerian domestic market.

In **Angola**, TotalEnergies holds a 13.6% interest in Angola LNG (ALNG), which owns a gas liquefaction plant of 5.2 Mt/y capacity, located near Soyo, that is supplied by gas associated to production from Blocks 0, 14, 15, 17, 18, 31 and 32. In July 2022, TotalEnergies announced the final investment decision of the "Non Associated Gas 1" (NAG1) project, in which the Company holds a 11.8% stake. NAG1 is the first non-associated gas project developed in Angola. The gas produced from the Quiluma and Maboqueiro offshore fields will supply the Angola LNG plant, thereby improving Angola's LNG production capacity and the availability of domestic gas for the country's industrial development. Production is scheduled to start mid-2026.

In **Mozambique**, in September 2019, TotalEnergies acquired, from Occidental Petroleum Corporation, the company that holds a 26.5% interest in the the Mozambique LNG project, for which the final investment decision was taken in June 2019. The project includes the construction of two onshore liquefaction trains with a total capacity of 13.1 Mt/y to liquefy the gas produced by Golfinho and Atum fields located in Offshore Area 1.

(1) Methane emissions from the operated facilities were 42 kt in 2022.

Considering the evolution of the security situation in the north of the Cabo Delgado province in Mozambique, on April 26, 2021, TotalEnergies confirmed the withdrawal of all the Mozambique LNG project personnel from the Afungi site. This situation led TotalEnergies, as operator of Mozambique LNG project, to declare a force majeure.

The sale of nearly 90% of Mozambique LNG production has been secured through long-term contracts for delivery to customers in Asia and Europe. In addition, part of the gas from Golfinho and Atum fields is intended for the domestic market to contribute to the country's economic development. The delivery schedule of the first LNG shipments will be reviewed in light of the duration of the force majeure.

## AMERICAS

In the **United States**, TotalEnergies is active in liquefaction through its 16.60% stake in the Cameron LNG plant in Louisiana. The production of the 3 trains, each of a capacity of 4.5 Mt/y began in 2019 (train 1) and in 2020 (trains 2 and 3). Each of the trains has a capacity of 4.5 Mt/y. In April 2022, TotalEnergies announced the expansion of the plant beyond its initial capacity of 13.5 Mt/y, with the construction of a fourth train with a production capacity of 6.75 Mt/y and the debottlenecking of the first three trains that will enable a 5% increase of the initial capacity. The project will also include design improvements to reduce GHG emissions, including the use of electricity-powered compressors. TotalEnergies committed to offtaking 16.6% of the production of the fourth train and 25% of the additional production from the existing trains.

In 2021, the agreements between TotalEnergies and Tellurian Inc. for the development of Driftwood LNG liquefaction project in Louisiana came to an end and TotalEnergies sold its interest in Tellurian Inc.

TotalEnergies operates assets (working interest of 95%) in the Barnett shale gas play, with 1,570 active wells at the end of 2022. An investment program including drilling and well maintenance activities are being implemented to mitigate the production decline. TotalEnergies carried out a measurement campaign of its GHG emissions, notably methane, and is implementing a set of initiatives and technological innovations to reduce them.

In **Mexico**, the decision to launch Phase 1 of the Energia Costa Azul (ECA) (nameplate capacity of 3 Mt/y), gas liquefaction project was made in November 2020. TotalEnergies holds a 16.6% interest and will offtake approximately 1.7 Mt/y of the initial capacity.

## ASIA-PACIFIC

In **Australia**, LNG production comes from the Ichthys LNG (26%) and Gladstone LNG (GLNG) (27.5%) projects.

The Ichthys LNG project involves the development of gas and condensate field located in the Browse Basin. This development includes subsea wells connected to a platform for the production, processing and export of gas, an FPSO for processing and exporting the condensate, an 889 km gas pipeline and an onshore liquefaction plant in Darwin, where the two trains have a nominal capacity of 8.9 Mt/y of LNG. Ichthys LNG has reached its production plateau and various adjustments have increased the nominal capacity by 10%. A compression project was approved in 2021, thus making it possible for the plateau to be extended. In addition to LNG, the facilities produce approximately 100 kboe/d of condensates and LPG.

GLNG is an integrated production (from the Fairview, Roma, Scotia and Arcadia fields), transportation and liquefaction project with a capacity of 8.8 Mt/y, located in Curtis Island, Queensland, whose two trains are in production. TotalEnergies entered into a tolling agreement with GIP Australia (GIP) effective since January 1, 2021, which provides that GIP will receive a tolling revenue for 15 years based on gas volumes (TotalEnergies' share) passing through the downstream treatment facilities.

In **Papua New Guinea**, TotalEnergies owns an interest in the PRL-15 Block (40.1%, operator since 2015), in which the State of Papua New Guinea retains the right to take a 22.5% interest when the final investment decision is made. In this case, TotalEnergies' shareholding would be reduced to 31.1%. At the beginning of March 2023, TotalEnergies also signed a heads of agreement with JX Nippon for a sale of 2% equity (post state back-in).

Block PRL-15 includes the two fields Elk and Antelope. Front End Engineering and Design (FEED) (including downstream) was launched early March 2023. It is expected that the gas produced by these fields will be transported by a 320 km onshore/offshore pipeline to the Caution Bay site, where four electrical liquefaction trains with a total capacity of 4 Mt/y will be built in the existing production facilities operated by a partner in the project and 2 Mt/y of liquefaction capacity will be secured in the existing LNG trains.

TotalEnergies and its partners signed an agreement with the State of Papua New Guinea defining the fiscal framework for the development of the Papua LNG project in April 2019. This agreement has been supplemented by a Fiscal Stability Act agreement, signed with the State in February 2021, and by an agreement allowing the extension of the PRL-15 license by 5 years until 2026.

## EUROPE

The specific context of **Russia** and its consequences on TotalEnergies are detailed in point 1.10.3 of chapter 1.

In **Norway**, TotalEnergies holds an 18.40% interest in Snøhvit gas liquefaction plant (nameplate capacity of 4.2 Mt/y). Following a 20-month shutdown, due to a fire, production resumed in June 2022.

## MIDDLE EAST AND NORTH AFRICA

In **Qatar**, TotalEnergies participates in the production, processing and liquefaction of gas from the North Field through its interest in:

- Qatargas 2: TotalEnergies holds a 16.7% interest in train 5, which has an LNG production capacity of 8 Mt/y,
- North Field East (NFE) and North Field South (NFS): TotalEnergies announced in June and September 2022 its entry in the projects NFE (6.25%) and NFS (9.375%) of a total planned capacity of 48 Mt/y. NFE project (four trains with a total planned capacity of 32 Mt/y) is in progress and NFS project (two trains with a total planned capacity of 16 Mt/y) is not launched yet. These interests are expected to add, by 2028, 3.5 Mt/y of production (Company share) to the Company's global LNG portfolio,
- Qatargas 1: TotalEnergies held a 20% interest in the North Field-Qatargas 1 Upstream field, the license of which expired on December 31, 2021, and a 10% interest in the LNG plant (three trains with a total capacity of 10 Mt/y) whose agreement between partners also expired on December 31, 2021. The transfer of Qatargas 1 shares was in progress at the beginning of March 2023.

In **Oman**, in December 2021, TotalEnergies signed:

- a concession agreement to develop the natural gas resources on the onshore Block 10 located in the Greater Barik area (26.55%). Block 10 production began in January 2023,
- an agreement to sell natural gas to the government of Oman,
- a shareholder agreement regarding the Marsa LNG company (80%, operator), created in order to produce natural gas from Block 10 to develop a low-carbon LNG plant in the port of Sohar, powered by solar electricity. This plant, with an initial production capacity of 1 Mt/y, is intended to supply LNG for ship bunkers.

TotalEnergies also produces LNG through its investments in the Oman LNG (5.54%)/Qalhat LNG (2.04% via Oman LNG) liquefaction complex, with an overall capacity of 10.5 Mt/y. By debottlenecking, this capacity will be increased to 11.4 Mt/y from 2023.

In the **United Arab Emirates**, TotalEnergies holds a 5% interest in ADNOC LNG (capacity of 5.8 Mt/y), a company which processes the associated gas produced by ADNOC Offshore in order to produce LNG, LPG and condensates, as well as a 5% interest in National Gas Shipping Company (NGSCO), a company in charge of chartering the ships and supplying the logistic resources for the needs of ADNOC LNG.

In **Egypt**, TotalEnergies holds a 5% interest in the first train (capacity of 3.6 Mt/y) of Egyptian LNG Idku liquefaction plant.

In **Yemen**, the deterioration of security conditions in the vicinity of the Balhaf site caused Yemen LNG, in which TotalEnergies holds 39.62%, to stop its commercial production and export of LNG and to declare force majeure to its various stakeholders in 2015. The plant has been put in preservation mode.

## 2.1.2.2 INTERMEDIATE ACTIVITIES: PURCHASE, SALE, TRADING AND TRANSPORT OF LNG

### PURCHASE, SALE AND TRADING OF LNG

In 2022, the LNG trading activities represented a volume of 42.8 Mt, compared with 35.1 Mt in 2021 and 31.1 Mt[1] in 2020. Those LNG sales by TotalEnergies come from equity production and purchases to third party.

Since 2019, the trading teams have been located in Geneva, Houston and Singapore.

TotalEnergies is developing its business by managing and optimizing a portfolio of long-term contracts and a spot activity.

- TotalEnergies acquires long-term volumes of LNG, in many cases from liquefaction projects in which the Company holds an interest (refer to point 2.1.2.1 of this chapter). New sources of LNG from projects under construction are expected to fuel the growth of the LNG portfolio in the coming years.
- TotalEnergies also acquires long-term LNG volumes mainly from American projects in which the Company has no equity (Sabine Pass, Corpus Christi and Freeport). Those volumes add to and diversify its worldwide portfolio of LNG resources. Deliveries from Cove Point ended in 2022.

  In 2022, TotalEnergies purchased 385 shipments under forward contracts from Algeria, Australia, Egypt, the United States, Nigeria, Norway, Qatar and Russia and 289 spot or medium-term shipments, compared with 306 and 242 shipments in 2021 and 350 and 185 in 2020 respectively. Deliveries from Yemen LNG have been halted since 2015.
- In addition, TotalEnergies holds several long-term LNG sales contracts, mainly in Asia (China, South Korea, India, Japan, Singapore, Taiwan), but also in Brazil, Chile, Panama and the Dominican Republic.

  In May 2022, TotalEnergies announced the signing of an agreement with the Korean company Hanwha Energy Corporation to supply 700 kt/y of liquefied natural gas (LNG) for 15 years from 2024-2025. The LNG is expected to come from TotalEnergies' global portfolio and be delivered to the Tongyeong regasification terminal in South Korea to power the new 1 GW Hanwha and HDC power plant, currently under construction next to the terminal.
- Additionally, TotalEnergies is developing LNG retail sales (by barge and tanker trucks) for industrial use or mobility (by ship, waterway or road) in Europe, in the Caribbean in partnership with AES and in China via the joint venture created in March 2021 with Shenergy Group.

  At the request of customers, TotalEnergies has delivered, between 2020 and 2021, 5 carbon-offset LNG cargoes using carbon credits certified by the international Verified Carbon Standard (VCS).

### LNG SHIPPING

As part of its LNG shipping activities, at the end of 2022 TotalEnergies Gas & Power Limited (TEGPL) operated a chartered fleet of 19 LNG carriers, compared with 20 at the end of 2021, following the sale of one of them. 18 of these LNG carriers are leased from shipowners, and one is co-owned (50%) with the Japanese shipowner NYK. In order to support the growth of the LNG portfolio, new LNG carriers are expected to be added to the fleet (two in 2023 and two in 2024).

In addition to the long-term fleet, each year TEGPL charters spot and short-term ships to serve trading needs and to adapt transport capacity to seasonal demand.

The TotalEnergies' EP Norge subsidiary also charters two LNG carriers directly from the ship owners, in addition to the 19 LNG carriers chartered by TEGPL.

Finally, LNG carriers are also chartered through the Company's interests in LNG production and export projects that control their own fleet, such as Nigeria LNG, Angola LNG and Qatargas.

TotalEnergies enters into partnerships with shipowners that are selected after an audit performed by the Vetting department of the Company. The vessels are equipped with a double hull, and are strictly selected in a tender process based on technical specifications defined by TotalEnergies and referring to the highest international standards.

(1) 2020 data restated.

### 2.1.2.3 LNG REGASIFICATION

TotalEnergies holds interests in regasification assets and has signed agreements that provide long-term access to LNG regasification capacity worldwide, through existing assets in Europe (France, the United Kingdom, Belgium and the Netherlands) and in the Americas (United States and Panama). Consequently, TotalEnergies has at year-end 2022 a worldwide long-term LNG regasification capacity of 31 Bcm/y (including South Hook LNG). In 2022, TotalEnergies launched two regasification projects in Germany and France to contribute to Europe's security of LNG supply in the context of the invasion of Ukraine by Russia. These projects involve the redeployment from 2023 of two FSRUs previously operating in Asia and the Middle East. In France, the FSRU will be based in Havre, while in Germany, it is already located in Lubmin in partnership with Deutsche Ostsee.

**Long term regasification capacity in Europe in 2022**

| Country | Region/State | Terminal | Reserved TotalEnergies capacity *(Bcm/y)* | Due date |
|---|---|---|---|---|
| France | Provence-Alpes-Côte d'Azur | Fosmax LNG, Fos-sur-Mer | 7.7 | ≥2030 |
| | Brittany | Montoir | 7.0 | 2035 |
| | Hauts-de-France | Dunkirk LNG | 2.1 | 2036 |
| United Kingdom | Wales | South Hook LNG | 2.0 | 2034 |
| | England | Isle of Grain, Kent | 3.3 | 2029 |
| Belgium | Flanders | Zeebrugge | 2.0 | 2023 |
| Netherlands | South Holland | Gate, Rotterdam | 1.2 | 2029 |
| **TOTAL** | | | **25.4** | |

In **France**, TotalEnergies sold its 27.5% interest in Fosmax LNG in February 2020. This transaction has not affected TotalEnergies' booked capacity of 7.7 Bcm/y with Fosmax LNG. TotalEnergies also has 7 Bcm/y of regasification capacity at the Montoir de Bretagne terminal and 2.1 Bcm/y of regasification capacity at the Dunkirk LNG terminal.

Faced with the risk of pressure on gas supplies in France, and more broadly in Europe, TotalEnergies played in 2022 the leading role in a terminal project in the port of Le Havre with a regasification capacity of 5 Bcm/y, with the supply of one of its two FSRUs. TotalEnergies will have a regasification capacity of 2.5 Bcm/y in this terminal, planned to come into operation in 2023.

In the **United Kingdom**, as part of its stake in the Qatargas 2 project, TotalEnergies holds an 8.35% interest in the South Hook LNG regasification terminal which has a total capacity of 21 Bcm/y and has an access to 2.0 Bcm/y of regasification capacity. TotalEnergies has also booked regasification capacity of 3.3 Bcm/y at the Isle of Grain terminal.

In **Belgium**, TotalEnergies has a regasification capacity of 2.0 Bcm/y at the Zeebrugge terminal.

In the **Netherlands**, TotalEnergies holds a regasification capacity of 1.2 Bcm/y at the Gate terminal that is booked until 2024.

In **Germany**, TotalEnergies chartered its second FSRU to Deutsche Regas, which commissionned at the beginning of 2023 the Deutsche Ostsee terminal with a regasification capacity of 5 Bcm/y in the port of Lubmin. In addition, TotalEnergies has a regasification capacity of 2.6 Bcm/y in this terminal.

In the **United States**, TotalEnergies has a regasification capacity of 5.0 Bcm/y at the Sabine Pass terminal in Louisiana until 2029.

In **India**, the partnerships between TotalEnergies and the Adani Group include several assets in the gas value chain, from LNG import facilities to gas distribution to domestic households. The Dhamra terminal, with an expected capacity of 5 Mt/y, is under construction. The start-up is expected in 2023.

The projects planned by TotalEnergies for the development of regasification terminals in **Benin** and **Côte d'Ivoire** were abandoned in 2021.

### 2.1.2.4 BIOGAS

TotalEnergies is engaged in the development and operation of units that produce biomethane from organic and industrial waste, and in the marketing of biomethane as a renewable supplement for natural gas. The Company's ambition is to be a major player in the sector, with a gross production target of 20 TWh/y by 2030.

Consisting of the same methane molecule as natural gas, biomethane is renewable due to the way it is produced and it generates very low carbon emissions over its entire life cycle. When it is injected into the natural gas transmission and distribution network, it has the same uses: heating and fuel for land and sea transport.

In **France**, in April 2021, TotalEnergies acquired Fonroche Biogaz and became the French market leaders in biogas production, with seven units in operation and four units under development. In February 2022, this subsidiary, renamed TotalEnergies Biogaz France, was awarded the Qualimétha label certifying its expertise in the design and construction of methanation units. More broadly, TotalEnergies is actively involved in the development and optimization of the sector in France, particularly as part of the Sector Strategic Committee - New Energy Systems.

In December 2022, BioBéarn, TotalEnergies Biogaz France's eighteenth production unit produced its first volumes of biomethane, which were injected into Téréga's gas network. BioBéarn, located in Mourenx, France, is ultimately expected to be the largest methanation plant in France.

The Company's biomethane and biogas production capacity in France has been increased to 700 GWh/y, equivalent to the annual gas consumption of more than 140,000 inhabitants. This represents, on an annual basis, the treatment of more than 730 kt of waste and allows a reduction of 140 kt of $CO_2e$ emitted and avoided the consumption 21 kt of synthetic fertilizer.

In March 2022, TotalEnergies and the FNSEA signed an agreement to support and accelerate the energy, environmental and economic transition of the agricultural sector in France. Covering in particular the development of biomethane, renewable energy and biofuels, this innovative partnership aims to create synergies between agriculture and the energy sector, in order to promote their sustainable development.

TotalEnergies is a founding member of BIP, the Biomethane Industrial Partnership, officially launched in October 2022, which is a public-private partnership between the European Commission and 20 players in the sector, present along the entire value chain, from producers to consumers. Its objective is to achieve the 35 Bcm/y production target set by REPowerEU by 2030.

In **Poland**, TotalEnergies announced in March 2023 the acquisition of Polska Grupa Biogazowa (PGB) which owns and operates 17 facilities in production and one under construction, for a total power generation capacity of 166 GWh/y, that represents nearly 0.4 TWh/y in biomethane equivalent[1].

In the **United States**, TotalEnergies is committed to developing biomethane production as part of its 50/50 joint venture with Clean Energy Fuels Corp, listed on NASDAQ, and the leader on the US renewable gas distribution market for vehicles[2], of which it owns 19.14%. As part of this joint venture, it finalized the construction of a production unit in Texas, with a capacity of over 40 GWh, launched in November 2021.

In **India**, the joint venture Adani Total Gas Limited joint venture (TotalEnergies, 37.4%) is involved in a first biomethane plant project in Barsana, Uttar Pradesh.

On a **global level**, TotalEnergies and Veolia announced in February 2022 the signature of an agreement to produce biomethane from Veolia's waste and water treatment facilities operating in more than 15 countries. The partnership could allow to produce up to 1.5 TWh/y of biomethane by 2025, equivalent to the average annual natural gas consumption of 300,000 residents, and to avoid some 300 kt $CO_2e$/y.

### 2.1.2.5 HYDROGEN

As part of its strategy and ambition to achieve carbon neutrality (net zero emissions) by 2050, together with society, TotalEnergies wants to gain a foothold on the low-carbon hydrogen market.

TotalEnergies works primarily on decarbonizing the hydrogen consumed in its European refineries by 2030, which is expected to reduce emissions by 3 Mt $CO_2e$/y. TotalEnergies has already launched projects to decarbonize its refineries by producing and supplying green hydrogen: La Mède (France), with a production of 15 kt/y, and the Zeeland refinery (Netherlands), with a production of 20 kt/y as a first step.

The hydrogen production capacity from renewable electricity currently under development or under study will contribute to achieving TotalEnergies' ambition to increase low-carbon molecules - biofuels, biogas, hydrogen, and e-fuels - to 25% of its energy production and sales by 2050.

In January 2022, TotalEnergies, Masdar and Siemens Energy signed a collaborative agreement to develop a project for producing hydrogen from renewable electricity. As part of this project, the construction of a pilot unit is planned in Masdar City to produce hydrogen and convert $CO_2$ into sustainable aviation fuel (SAF).

In October 2021, TotalEnergies joined forces with VINCI, Air Liquide and other major international industrial players to create the world's largest fund[3] dedicated to the development of low carbon hydrogen infrastructures. The first commitments have reached €1 billion, out of a total target of €1.5 billion.

In October 2021, Offshore Wind Power Limited (OWPL), the consortium formed by TotalEnergies (38,25%), Green Investment Group, and the Scottish developer, Renewable Infrastructure Development Group (RIDG), announced that it is looking into the use of offshore wind power to produce hydrogen on an industrial scale on the island of Flotta in the Orkney Islands, Scotland.

In addition, Total Eren is conducting feasibility studies for projects to produce hydrogen from renewable electricity on a massive scale for potential conversion into ammonia, notably in Australia, Chile and Mauritania.

## 2.1.3 Integrated Power

In the context of the development of an integrated value chain from power production to sales of electricity to residential and commercial customers, TotalEnergies is aiming for net power generation of more than 50 TWh by 2025, mainly from renewable source. It was 33.2 TWh in 2022, compared to 21.2 TWh in 2021 and 14.1 TWh in 2020.

TotalEnergies' ambition is to become a global leader in the field of renewables. The Company had a portfolio of gross installed renewable power generation capacity of 16.8 GW in 2022, compared with 10.3 GW in 2021 and 7.0 GW in 2020. TotalEnergies confirms its objective to invest in order to reach a gross power generation capacity from renewables of 35 GW in 2025, and intends to continue its development to become one of the top five producers of renewable electricity (wind and solar) in the world, with a gross capacity of 100 GW by 2030.

### 2.1.3.1 POWER GENERATION FROM NATURAL GAS

TotalEnergies is building a portfolio of combined-cycle gas turbines (CCGT) in Europe as part of its strategy to create an integrated gas and electricity value chain in Europe, from production to marketing, as an ideal complement to renewable power generation from inherently intermittent sources. Thanks to the flexible production from those power plants, TotalEnergies can optimize its customers' power procurement costs. At year-end 2022, in Europe, TotalEnergies benefited from 9 CCGTs (compared with 8 at the year-end 2021) with a gross power generation capacity of 3.9 GW and 2 cogeneration units (0.3 GW capacity). Electricity generated from natural gas was 22.8 TWh in 2022, compared with 14.4 TWh in 2021 and 10.2 TWh in 2020.

(1) If the same installations produced biomethane, with the same inputs, and based on 1 MW = 20.5 GWh/y of biomethane equivalent.
(2) TotalEnergies data.
(3) Source: Ardian website.

**Portfolio of electricity generation from CCGT in Europe at end-2022**

| Country | Plant | TotalEnergies share (%) | Gross capacity (MW) |
|---|---|---|---|
| France | Bayet | 100 | 399 |
| | Pont-sur-Sambre | 100 | 445 |
| | Toul | 100 | 440 |
| | Saint-Avold (2 CCGT) | 76 | 884 |
| | Landivisiau | 50 | 446 |
| Belgium | Marchienne | 100 | 404 |
| Spain | Castejon (2 CCGT) | 100 | 843 |

In **France**, at December 31, 2022, TotalEnergies owned 6 CCGTs, compared with 5 in 2021, including one with a capacity of 0.4 GW, which started up in March 2022 in Landivisiau (of which 50% were sold in 2022 to Turbo Bidco Ltd) as well as a cogeneration unit (Normandy refinery). Their gross gas-based power generation capacity stood at 2.6 GW at the end of 2022 for the CCGTs and 0.2 GW for the Normandy cogeneration unit.

In **Belgium**, TotalEnergies owns the Marchienne CCGT, with a capacity of 0.4 GW. In addition, TotalEnergies has access to Antwerp's cogeneration power generation (0.1 GW).

In **Spain**, TotalEnergies acquired two CCGTs from Energías de Portugal in 2020 with a total gross capacity of 0.8 GW at year-end 2022 (stable since 2020).

In **Abu Dhabi**, the Taweelah A1 gas-fired power plant, owned by the Gulf Total Tractebel Power Company (TotalEnergies, 20%), combines electricity generation and seawater desalination. The plant has a gross power generation capacity of 1.6 GW and a seawater desalination capacity of 385 km³/day. The plant's production is sold to Emirati Water and Electricity Company (EWEC) under a long-term agreement.

## 2.1.3.2 POWER GENERATION FROM RENEWABLES

To develop its renewable electricity generation capacities, TotalEnergies jointly carries out organic growth and selective acquisitions, notably with the 2016 acquisitions of Quadran (through Direct Energie), since renamed TotalEnergies Renewables France, and of an interest in Total Eren, as well as the acquisitions of a 20% interest in Adani Green Energy Ltd in India in 2021 and a 50% interest in Clearway Energy Group in 2022.

TotalEnergies had gross installed renewable power generation capacities of 16.8 GW at year-end 2022, compared to 10.3 GW at year-end 2021 and 7.0 GW at year-end 2020. Net renewable power generation amounted to 10.4 TWh in 2022, compared to 6.8 TWh in 2021 and 4.0 TWh in 2020.

TotalEnergies continued to grow with the target of 35 GW of gross installed capacity by 2025 and 100GW in 2030, and has, at year-end 2022, a portfolio of gross renewable power generation capacities (in operation, in construction, in development) of 69 GW.

**Renewable power generation capacities**

| | As of December 31, 2022 | | |
|---|---|---|---|
| Renewable power generation capacities[(a)] | In operation | In construction | In development |
| Gross capacities | 16.8 GW | 6.1 GW | 46 GW |
| Net capacities | 7.7 GW | 4.1 GW | 33.6 GW |

(a) Including 20% of Adani Green Energy Ltd's gross capacities and 50% of Clearway Energy Group's gross capacities.

**Gross installed renewable power generation capacities**

| | As of December 31, 2022 | | | | |
|---|---|---|---|---|---|
| **Gross** installed renewable power generation capacities (GW)[(a)] | Solar | Onshore Wind | Offshore Wind | Other* | Total |
| France | 0.8 | 0.6 | 0.0 | 0.1 | 1.5 |
| Rest of Europe | 0.2 | 1.1 | 0.3 | 0.0 | 1.6 |
| Africa | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Middle East | 1.2 | 0.0 | 0.0 | 0.0 | 1.2 |
| North America | 2.9 | 2.1 | 0.0 | 0.1 | 5.1 |
| South America | 0.4 | 0.3 | 0.0 | 0.0 | 0.7 |
| India | 4.9 | 0.4 | 0.0 | 0.0 | 5.3 |
| Asia-Pacific | 1.2 | 0.0 | 0.1 | 0.0 | 1.4 |
| **TOTAL** | **11.7** | **4.5** | **0.4** | **0.2** | **16.8** |

* Storage and hydroelectricity.
(a) Including 20% of Adani Green Energy Ltd's gross capacities from first trimester 2021 and 50% of Clearway Energy Group's gross capacities from third trimester 2022.

### Gross renewable power generation capacities in construction

| Gross renewable power generation capacities in construction *(GW)*[(a)] | As of December 31, 2022 | | | | |
|---|---|---|---|---|---|
| | Solar | Onshore Wind | Offshore Wind | Other* | Total |
| France | 0.2 | 0.1 | 0.0 | 0.0 | 0.4 |
| Rest of Europe | 0.1 | 0.0 | 0.9 | 0.0 | 1.0 |
| Africa | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Middle East | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| North America | 2.6 | 0.0 | 0.0 | 0.5 | 3.1 |
| South America | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| India | 0.8 | 0.2 | 0.0 | 0.0 | 1.0 |
| Asia-Pacific | 0.1 | 0.0 | 0.5 | 0.0 | 0.6 |
| **TOTAL** | **3.8** | **0.3** | **1.4** | **0.6** | **6.1** |

* Storage and hydroelectricity.
(a) Including 20% of Adani Green Energy Ltd's gross capacities from first trimester 2021 and 50% of Clearway Energy Group's gross capacities from third trimester 2022.

### Gross renewable power generation capacities in development

| Gross renewable power generation capacities in development *(GW)*[(a)] | As of December 31, 2022 | | | | |
|---|---|---|---|---|---|
| | Solar | Onshore Wind | Offshore Wind | Other* | Total |
| France | 1.6 | 0.4 | 0.0 | 0.0 | 2.0 |
| Rest of Europe | 3.8 | 0.4 | 4.4 | 0.1 | 8.6 |
| Africa | 0.6 | 0.1 | 0.0 | 0.1 | 0.9 |
| Middle East | 0.6 | 0.0 | 0.0 | 0.0 | 0.6 |
| North America | 10.8 | 3.4 | 4.1 | 4.1 | 22.4 |
| South America | 0.8 | 1.1 | 0.0 | 0.2 | 2.0 |
| India | 4.4 | 0.1 | 0.0 | 0.0 | 4.5 |
| Asia-Pacific | 2.2 | 0.1 | 2.3 | 0.4 | 5.0 |
| **TOTAL** | **24.8** | **5.5** | **10.8** | **4.9** | **46.0** |

* Storage and hydroelectricity.
(a) Including 20% of Adani Green Energy Ltd's gross capacities from first trimester 2021 and 50% of Clearway Energy Group's gross capacities from third trimester 2022.

## TotalEnergies Renouvelables France

In France, the TotalEnergies Renouvelables France subsidiary develops, builds and operates **renewable electricity generation** projects in mainland France and its overseas territories. It operated more than 515 onshore wind, solar, battery and hydraulic assets for a gross installed capacity of 1.5 GW at year-end 2022, compared to 1.2 GW at year-end 2021 and 1 GW at year-end 2020. The 2022 growth comes from several projects spread out in the country.

In February 2023, TotalEnergies sold to Crédit Agricole Assurances 50% of a 234 MW portfolio of renewable projects in France, including 23 solar plants with a 168 MW capacity and 6 wind plants with a 67 MW capacity.

During 2022, Crédit Agricole Assurances and Banque des Territoires acquired three 50% interests in solar and wind asset portfolios with a total capacity of 279 MW, from TotalEnergies in France.

These farmdowns are the implementation of the business model defined by TotalEnergies for the development of renewables aiming to achieve over 10% return on equity and to spread its risk.

In addition, in March 2020, TotalEnergies acquired Global Wind Power France, which is developing a portfolio of more than 1 GW of onshore wind power projects in France, including 250 MW expected to be commissioned by 2025.

In March 2022, the conclusion of an innovative partnership with the French national federation of agricultural operators syndicates (FNSEA), intended to promote the emergence of circular economic networks and to guarantee the acceptability of projects and the sharing of value with farmers, illustrated the Company's desire to develop agrivoltaic projects that address the challenges facing the agricultural sector.

## TotalEnergies Renewables International

Internationally, TotalEnergies is developing solar and onshore wind projects, sometimes combined with electricity storage in targeted geographical areas, particularly in the United States, Brazil, the Middle East, Europe and India.

In the **United States**, following the agreements signed in May 2022 with Global Infrastructure Partners (GIP), TotalEnergies acquired 50% of Clearway Energy Group (CEG), one of the largest U.S. renewable energy player. CEG, through its NYSE-listed subsidiary Clearway Energy Inc. owns 7.7 GW of operating wind and solar renewable assets and has a pipeline of 25 GW of renewable and storage projects, of which 15 GW are in advanced stages of development. In this transaction, in addition to $1.6 billion in cash, GIP received a 50% minus one share interest in SunPower. Through this acquisition, TotalEnergies establishes a major position in the U.S. renewable and storage market.

In April 2022, TotalEnergies acquired Core Solar and its identified 4 GW pipeline of projects. Of this portfolio, the Hill solar project (525 MW) was launched in late 2022 with a view to its commissioning in late 2024.

In 2021, TotalEnergies acquired 2.2 GW of solar projects from SunChase power. The Myrtle (380 MW) and Danish (720 MW) photovoltaic sites, under construction, have been reinforced with storage projects in 2022 (Myrtle (150 MW/225 MWh) and Danish (150 MW/225 MWh)). In 2022, construction of the Cottonwood solar project (455 MW) located in Brazoria County, Texas, was launched. The Myrtle PV and Danish PV projects are expected to contribute to the reduction of Scope 2 GHG emissions from TotalEnergies' U.S. sites by providing some of the electricity consumption of the industrial sites operated in the U.S., including the Port Arthur refinery-petrochemicals platform and the La Porte and Carville petrochemicals sites. Those projects as well as Cottonwood PV project should also make it possible to supply renewable electricity to customers such as Kilroy, Amazon, Saint-Gobain and LyondellBasel through corporate PPAs signed in 2021 ad 2022.

In 2020, TotalEnergies and 174 Power Global, a subsidiary of the Hanwha Group, signed an agreement to create a 50/50 joint venture to develop 12 utility-scale solar and energy storage projects with a combined capacity of 1.6 GW from 174 Power Global's development portfolio. These projects, located in six U.S. states, are expected to be developed by 2024. The portfolio also includes the Oberon solar plant in Texas (194 MW, 50%), commissioned in 2021 and Rayos del Sol (242 MW, 50%), commissioned in 2022. In addition, TotalEnergies has interests in the NASDAQ-listed US companies SunPower Corporation (SunPower) and Maxeon Solar Technologies, Ltd. (Maxeon), which are discussed in a separate section below.

In January 2023, in **Brazil**, TotalEnergies teamed up with Casa dos Ventos (Brazil's leading renewable energy developer[(1)]) to develop a 12 GW renewable energy portfolio. The initial portfolio includes 700 MW of onshore wind capacity in operation, 1 GW of onshore wind under construction, 2.8 GW of onshore wind and 1.6 GW of solar projects in advanced stages of development. In addition to the existing portfolio, this new joint venture (TotalEnergies 34% and Casa dos Ventos 66%) has a right of first offer on all projects developed by Casa dos Ventos.

In the **Middle East**, TotalEnergies and its partners have commissioned the Al Kharsaah solar power plant (800 MW, 19.6%) in **Qatar** in October 2022. The plant is 40% owned by the consortium formed by TotalEnergies (49%) and Marubeni (51%) and 60% owned by QatarEnergy Renewables Solutions. Located 80 km west of Doha, Al Kharsaah is the first large-scale solar power plant in Qatar. It can supply 10% of the country's peak consumption and will avoid the emission of 26 Mt $CO_2$ over its lifetime.

In addition, as part of a multi-energy agreement with **Iraq** signed in September 2021, TotalEnergies plans to develop a 1 GW solar power plant to supply the Basra region's grid. TotalEnergies is also developing a solar project in **Saudi Arabia** (Wadi Ad Dawasir, 120 MW, 40%) and has a stake in the Shams solar power plant in Abu Dhabi (110 MW, 20%). Finally, in **Oman**, TotalEnergies has teamed up with Veolia to launch the construction of a photovoltaic project to power a seawater desalination plant and provide drinking water to more than 600,000 people. The 17 MW solar project is a first of its kind in the Middle East and is designed to produce more than 30 GWh/y of renewable electricity and avoid nearly 300 kt $CO_2$ emissions.

In **Europe**, in **Spain**, TotalEnergies is developing a portfolio of solar projects of more than 3 GW. Construction of the Los Valientes (14 MW, 65%) and La Isla (5 MW, 65%) solar power plants began in 2022.

In the **United Kingdom**, TotalEnergies acquired nearly 330 MW of renewable projects from Bluestone in 2022.

In **Belgium**, the construction of a storage project located on the site of TotalEnergies' Antwerp refinery (25 MW/75 MWh) started in December 2022.

In **Poland,** TotalEnergies announced in March 2023 the acquisition of 6 solar projects under development with an overall production capacity of 200 MW. The first solar farms are expected to come on stream by 2025.

In **India**, TotalEnergies Renewables International operates through a partnership with Adani Green Energy Limited (AGEL). In April 2020, TotalEnergies acquired an initial 50% stake in a portfolio of solar projects owned with AGEL, which totals, at year-end 2022, 3.1 GW in operation. This transaction was followed in January 2021 by the acquisition by TotalEnergies of a 20% stake in AGEL. At year-end 2022, 60.8% of AGEL is owned by the Adani family, 19.8% by TotalEnergies and 18.2% by public investors. At year-end 2022, the total amount invested by TotalEnergies in relation with AGEL amounts to nearly 2.5 billion dollars.

In the **rest of the world**, in **South Africa**, TotalEnergies won a tender in 2022 from Sasol and Air Liquide for an onshore wind project (140 MW, 35%) and a solar project (100 MW, 35%). The Company had already won two tenders in 2021 for the development of an 87 MW project (36%) and a 216 MW project (35%) associated with batteries. TotalEnergies also has a stake in the Prieska solar power plant (86 MW, 27%).

TotalEnergies is also developing solar projects in **Mozambique** (Dondo, 40 MW, 90%) and **Angola** (Quilemba, 35 MW, 51%).

In **Chile**, TotalEnergies holds interests in the Santa Isabel (190 MW, 50%) and PMGD (23 MW, 100%) solar power plants.

Finally, in **Japan**, the Haze solar power plant, with a capacity of approximately 51 MW, was commissionned at the beginning of 2023. TotalEnergies' stake was 90% at the time of the final investment decision; it has been gradually reduced to 45% during 2022. TotalEnergies also holds stakes in the Nanao (27 MW, 50%), Miyako (25 MW, 50%) and Osato (52 MW, 45%) solar power plants.

### Total Eren

On the international scene, in 2017, TotalEnergies also acquired a 23% indirect stake in Eren Renewable Energy, renamed Total Eren, which was increased to a 29.6% direct and indirect holding at the end of 2019. TotalEnergies has announced that it intends to exercise its option to acquire 100% of Total Eren in 2023. At year-end 2022, Total Eren had a diversified set of assets in renewable energies (wind, solar and hydropower), representing gross installed capacity of 3.5 GW. Among this capacity, wind in Europe account for a significant share (1.0 GW) as well as solar in Asia-Pacific (1.1 GW). South America is also a region where Total Eren has solar (0.4 GW) and wind (0.3 GW) capacity.

Through its partnerships with local developers, Total Eren is developing projects mainly in Asia-Pacific (solar: 3.9 GW, wind: 0.6 GW), in South America (solar: 2 GW, wind: 1.2 GW, hydropower: 1 GW), in Africa (solar: 1.1 GW, wind: 1,2 GW) and in Europe (solar: 1,1 GW, wind: 0,7 GW). In April 2019, Total Eren acquired Novenergia and expanded its presence, particularly in Southern Europe.

(1) Source : Casa dos Ventos's website.

## OFFSHORE WIND POWER

As part of its long-term strategy to develop renewable energy sources, TotalEnergies has been developing a strong presence in the fixed and floating offshore wind industry since 2020.

In 2020, in the **United Kingdom**, TotalEnergies acquired an 80% stake in the groundbreaking Erebus and Valorous floating wind projects, located in the Celtic Sea in Wales, with a capacity of up to 0.4 GW, from the developer, Simply Blue Group.

In Scotland, in 2020, TotalEnergies acquired a majority stake (51%) in the Seagreen project, an offshore wind farm with a capacity of 1.1 GW, located off the Angus coast in the North Sea, alongside SSE Renewables. The first turbines of this project under construction came into operation at the end of August 2022. The objective is for the farm to be fully operational in the first half of 2023.

In January 2022, following a bid for tender by ScottWind, the joint venture between TotalEnergies (38.25%), Macquarie's subsidiary Green Investment Group (GIG) (46.75%) and RIDG (15%), a Scottish developer in offshore wind, successfully secured rights in the N1 area to develop a 2 GW offshore windfarm project. This project, called the West of Orkney Windfarm, will be located 30 kilometers off the Orkney archipelago.

In England, a 50/50 joint venture between TotalEnergies and GIG won a concession on the British seabed in February 2021 to develop the 1.5 GW Outer Dowsing Offshore Wind fixed offshore wind project.

In the **United States**, in February 2022, TotalEnergies was named winner of a maritime lease area to develop an offshore wind farm of over 3 GW off New York and New Jersey on the East Coast. The Rise Light & Power group purchased an interest in the project in December 2022. In May 2022, TotalEnergies was also named winner of a maritime lease area to develop a wind farm of over 1 GW off North Carolina on the US East Coast.

TotalEnergies also established the TotalEnergies SBE US joint venture in 2020 with the Simply Blue Group, to contribute to the growth of floating wind power in the country.

In **Taiwan**, the Yunlin project, with a capacity of 640 MW, in which TotalEnergies acquired a 23% stake in May 2021 from the company wpd, is currently under construction. The project started to inject electricity into the grid in November 2021 and the full commissioning is planned in 2024 as the construction encountered difficulties regarding the foundations lay out.

**South Korea**, TotalEnergies is developing a portfolio of more than 2 GW of floating wind power with the Bada project in partnership with Corio Generation (subsidiary of GIG group). In November 2022, the SK Ecoplant group purchased an interest in the project.

In **France**, in 2020, TotalEnergies became a 20% shareholder in the Eolmed project, which is a pilot project for a 30 MW floating wind farm located in the Mediterranean Sea off the coast of Gruissan and Port-La Nouvelle, on which construction started in May 2022 and is scheduled to start production by 2024.

In September 2021, TotalEnergies, GIG and Qair joined forces to submit a joint offer to develop a floating wind farm with a capacity of up to 270 MW off the southern coast of Brittany. The consortium was pre-selected by the Directorate General for Energy and Climate (DGEC) to participate in the tender process prior to the award of this project.

In August 2022, the same consortium (in which GIG is now represented by its subsidiary Corio Generation) were pre-selected by the DGEC to participate in the tender for the construction of two floating wind farms in the Mediterranean with a power of 250 MW each.

In November 2022, a consortium led by TotalEnergies and RWE Renewables participated in the tender to develop, build and operate a 1 GW offshore wind farm in Normandy.

Consequently, at year-end 2022, TotalEnergies had more than 11 GW gross capacity of offshore wind projects under construction and development, of which three quarters are fixed and one quarter is floating.

### TotalEnergies Renewables Distributed Generation

The 100%-owned TotalEnergies Renewables Distributed Generation subsidiary focuses on developing and building photovoltaic systems, that may be combined with batteries or other means of generation and are installed at industrial and commercial sites for their own consumption. Depending on each country's laws, TotalEnergies Renewables Distributed Generationcan operate those systems or lease them to local players. TotalEnergies Renewables Distributed Generation enters into private power purchase agreements (PPA) as part of its activities. In addition, it helps to carry out TotalEnergies' program for solarizing its own sites.

TotalEnergies Renewables Distributed Generation has operational activities in more than 20 countries, with clients in Asia, the Middle East Europe and in the United States.

In South-East Asia, in April 2022, TotalEnergies and ENEOS announced the creation of a joint venture to develop decentralized solar power production for their B2B customers in several Asian countries. This joint venture (50/50) between two major players in the sector has the ambition to develop 2 GW of decentralized solar capacity over the next five years.

In China, the joint venture formed equally between TotalEnergies Renewables Distributed Generation and Envision Group in 2019, the world leader in smart energy systems, now operates on behalf of its B2B customers more than 300 MW of decentralized solar capacity.

In 2022, in the United States, TotalEnergies acquired SunPower's industrial and commercial solar activities. This acquisition is a new step in TotalEnergies' strategy to develop its decentralized solar business. It aims to enable the Company to expand in this segment in the United States and to increase its capacity by more than 200 MW/ydone.

Finally, in 2022, the subsidiary TotalEnergies Renewables Distributed Generation exceeded the symbolic thresholds of 500 MW of gross installed capacity around the world and 1 GW of secured projects.

### CORPORATE PPA

On open electricity markets, it is possible to sign long-term sales contracts, called corporate PPAs, for the output from solar or wind assets with corporate customers. Unlike in the distributed generation business, said assets are not located on the customer's property, but elsewhere on the electricity grid. The electricity generated by these assets is then injected on the electricity grid.

These contracts are usually signed on a long-term basis with fixed prices or with limited price variations. They enable customers to buy low carbon electricity directly from the producer, while benefiting from a stable electricity price over the long term by having access to the cost advantages offered by large-scale plants. These contracts enable TotalEnergies to secure long-term electricity sales and to promote the launch of new production assets.

Corporate PPAs exist in a growing number of countries. Today, the most dynamic markets are United States, Western Europe, Brazil and Australia. TotalEnergies is positioning itself locally in these different markets to offer its customers global solutions and thus support them in their decarbonization objectives. In 2022, several Corporate PPAs have been signed, notably with Saint-Gobain and LyondellBasell in the United States.

At the end of 2022, TotalEnergies has a portfolio of Corporate PPAs in these markets for 2.8 TWh, equivalent to more than 1.2 GW of installed capacity. These Corporate PPAs were signed with customers such as Amazon Web Services, Microsoft, Merck and Orange.

### SunPower Corporation and Maxeon Solar Technologies, Ltd.

TotalEnergies has been shareholder (25.236% as of December 31, 2022) in SunPower Corporation, an American company listed on NASDAQ and based in California, since 2011. Since the spin-off of the company in August 2020 and the creation of Singapore-based Maxeon Solar Technologies, Ltd. (26.66%), which is also listed on the NASDAQ, SunPower has focused on developing and marketing energy services combining photovoltaic systems, energy storage and services in the residential segment of the US market. In October 2021, SunPower acquired Blue Raven Solar, one of the fastest-growing solar providers in the U.S. on the residential market. As of December 31, 2022, SunPower has signed over 85,000 contracts with individual clients, for a total installed capacity of 675 MW.

Maxeon Solar Technologies, Ltd. now brings together the design, manufacture and sale of very high-efficiency solar cells and panels worldwide. Tianjin Zhonghuan Semiconductor Co., Ltd. (TZE), a global force in solar cells, acquired a 23.97% stake in Maxeon Solar Technologies Ltd. at the time of the spin-off.

In February 2022, TotalEnergies announced that it had signed a definitive agreement with SunPower (NASDAQ: SPWR) for the purchase of its commercial and industrial solar activities for $250 million, including $60 million in potential price supplements, depending on certain regulatory changes.

In September 2022, following agreements signed in May 2022 with Global Infrastructure Partners (GIP), TotalEnergies acquired 50% of Clearway Energy Group (CEG), In this transaction, in addition to $1.6 billion in cash, GIP received a 50% minus one share interest in SunPower.

## 2.1.3.3 ELECTRICITY STORAGE

Electricity storage is a major challenge for the future of power grids and a vital add-on to renewables, which are intermittent by nature. Large-scale electricity storage is essential to promote the growth of renewables and help them capture a significant share of the electricity mix. TotalEnergies is positioned on electrical energy storage through its wholly-owned subsidiary Saft Groupe.

Saft, which TotalEnergies acquired in 2016, is a century-old French company that specializes in the design, manufacture and sale of high-tech batteries for industry. Saft develops batteries that use nickel, lithium-ion and primary lithium technologies. The company is active in transportation (aeronautics, rail and off-road electric mobility), industrial infrastructure, meters and the Internet of things, aerospace, defense and energy storage. Building on the strength of its technological know-how, and through its energy storage activities, Saft is well placed to benefit from the growth in renewables beyond its current activities, by offering massive storage capacities, combined with the generation of electricity from renewables. This is one of Saft's main axes of growth.

In 2022, Saft continued to develop its business, particularly in energy storage and mobility, with in particular:

- the commissioning of an energy storage site on Carling's TotalEnergies platform, with a storage capacity of 25 MWh. This site is made up of 11 lithium-ion battery containers, designed and assembled by Saft,
- the signing of a contract with Eiffage Energie Systèmes for the delivery of an energy storage system of 10 MW/13.8 MWh in order to facilitate the integration to the grid of the Boundiali photovoltaic power plant, the first large-scale solar project in Côte d'Ivoire,
- the start of the delivery of nickel batteries to Alstom to provide emergency power for 183 Grand Paris Express trains for three new metro lines by 2030,
- the launch of Seanergy 2.0, a new lithium-ion battery system designed for all-electric or hybrid ships to decarbonize marine mobility.

In addition, the growing development of renewable energies is changing the balance of grid operators. TotalEnergies is committed to providing grid operators with services to manage the flexibility required to balance generation and consumption.

TotalEnergies won a major lot in the long-term call for tenders launched by RTE in 2019 to strengthen the security of supply of the French electricity system, and thus started up a battery-based electricity storage facility in France in 2021. The seven-year contract provides a stable revenue base for energy storage projects. TotalEnergies won 129 MW, which are connected to the grid at three of the Company's sites: Dunkirk (61 MW), Carling (25 MW) and Grandpuits, (43 MW). 86 MW were operational in 2022 (Dunkirk and Carling). An additional 43 MW (Grandpuits) will come on stream in 2023. These facilities are composed of 60 2.5 MWh containers designed and assembled by Saft. This deployment is in addition to the combined photovoltaic and storage facilities in the French overseas territories (26 MW).

At year-end 2022, Saft was present in 19 countries (historically in Europe and the United States) and had around 4,000 employees. Saft is expanding, especially in South America and Asia, and has 16 production sites and approximately 30 sales offices.

In parallel, TotalEnergies also develops other electrical energy storage projects through partnerships. In September 2021, Stellantis, TotalEnergies and Mercedes-Benz entered into agreement to welcome Mercedes-Benz in the ACC (Automotive Cells Company) Alliance, the joint venture created in 2020 to design and manufacture batteries for electric vehicles.

The year 2022 was marked by significant progress for the ACC alliance. ACC relies on cutting-edge R&D provided in particular by Saft. Since its inauguration in September 2021, its R&D center in Bruges near Bordeaux has been developing the first prototype cells and modules for batteries. The pilot plant, built on the site of Saft's factory in Nersac (France) and operational since 2022, aims to validate the prototype manufacturing process, a necessary step in preparation for mass production of lithium-ion cells. The year 2022 saw the start of construction of the first large-scale plant in Hauts-de-France (production to begin in 2023). By 2024, construction of a second plant based in Kaiserslautern, Germany, should be launched (production to start in 2025), as well as the construction of a third plant in Termoli, Italy. By 2030, the production target is more than 120 GWh, *i.e.* a target of 2.5 million batteries for electric vehicles per year.

Finally, TotalEnergies has been operating the Plate Taille (Belgique) hydroelectric plant since 2014; the concession has been extended until 2025. Plate Taille is the second largest electricity storage plant in Belgium, with a 140 MW capacity.

## 2.1.3.4 NATURAL GAS AND ELECTRICITY MARKETING AND TRADING

### NATURAL GAS AND ELECTRICITY MARKETING

#### EUROPE

With a portfolio of 5.6 million BtB and BtC customer sites (gas and electricity) **in France**, 8.9 million BtB and BtC client sites **in Europe** and 55.3 TWh of electricity and 96.3 TWh of gas supplied in 2022, TotalEnergies has become a leading player in the sale of natural gas and electricity to both the residential and professional markets (business and industrial segments).

TotalEnergies is now aiming for 10 million BtB and BtC electricity customers sites in Europe by 2030.

In a context of rising electricity prices, since November 2022, TotalEnergies has committed to support its customers by encouraging them to save energy, through the development of new offers and the broadcasting of alarms regarding voltage on the electricity grid.

For individual customers, TotalEnergies has implemented:

- a new "*Heures Eco*" offer incentivizing consumers to reduce their electricity bills through cheaper tariffs during off-peak hours,
- a "*BonusConso*" program aimed at rewarding customers who reduce their electricity consumption over the winter period, in the form of bonuses applied directly to customers' invoices,
- in the winter of 2022, the reactivation of the *#TousAuCourant* program, which publicizes eco-gestures and raises alerts on days of pressure on the grid.

For professional clients and local authorities, TotalEnergies has implemented:

- options to reward flexible electricity consumption during peak times,
- the roll-out of an awareness-raising campaign for all B2B customers.

In January 2023, following consultations initiated by the Government, TotalEnergies has committed to supporting small entreprises and small and medium entreprises by reducing the prices of their electricity contracts signed during the 2nd semester 2022 to €280/MWh excluding taxes over the year 2023. TotalEnergies has also committed to updating the twelve-month Horizon electricity tariff schedule at an average annual price of €280/MWh excluding taxes for new VSEs and SMEs customers.

TotalEnergies markets natural gas and electricity in the residential and professional segments in France through its subsidiary TotalEnergies Electricité et Gaz France (a merger of the TotalEnergies Énergie Gaz, TotalEnergies Spring France and Direct Énergie entities), in **Belgium**, through TotalEnergies Power & Gas Belgium subsidiary (formerly Lampiris SA), and in **Spain** (both professional and residential customers following its acquisition of EDP's operations in Spain in 2020).

TotalEnergies also markets natural gas and electricity on the professional market in the **United Kingdom** and **the Netherlands**.

| *(million of sites BtB and BtC)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Europe** | **8.9** | **8.8** | **8.3** |
| France | 5.6 | 5.4 | 4.8 |
| Belgium | 0.9 | 1.0 | 1.0 |
| United Kingdom | 0.3 | 0.3 | 0.2 |
| Germany | 0.0 | 0.0 | 0.1 |
| Netherlands | 0.0 | 0.1 | 0.1 |
| Spain | 2.0 | 2.1 | 2.1 |

| *(in TWh of electricity supplied)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Europe** | **56** | **56.6** | **47,3** |
| France | 32.1 | 33.4 | 26.7 |
| Belgium | 3.9 | 4.5 | 4.2 |
| United Kingdom | 13.4 | 12.6 | 9.3 |
| Germany | 0.0 | 0.0 | 3,9 |
| Netherlands | 0.7 | 0.8 | 0.5 |
| Spain | 5.9 | 5.2 | 2,8 |

| *(in TWh of gas supplied)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Europe** | **99.2** | **101.2** | **95.8** |
| France | 29.9 | 31.5 | 27.1 |
| Belgium | 7.6 | 10.3 | 9.1 |
| United Kingdom | 53.7 | 50.2 | 43.1 |
| Germany | 0.0 | 0.0 | 12.1 |
| Netherlands | 2.9 | 3.9 | 3,6 |
| Spain | 5.1 | 5.3 | 0,8 |

#### REST OF THE WORLD

In **Argentina**, TotalEnergies markets the natural gas that it produces. In 2022, as in 2021, 4.4 Bcm of gas was sold, compared to 4.3 Bcm in 2020.

In **India**, in 2021, Adani Total Gas Limited – of which TotalEnergies acquired 37.4% in 2020 – added 14 new city gas distribution concessions to the 38 concessions it already holds.

#### NATURAL GAS AND ELECTRICITY TRADING

TotalEnergies is active in the trading of natural gas and electricity in Europe and North America. It sells its output to third parties and supplies its subsidiaries.

In **Europe**, TotalEnergies sold 888 TWh of natural gas in 2022, compared to 747 TWh in 2021 and 886 TWh in 2020. TotalEnergies also delivered 122 TWh of electricity in 2022, compared to 111 TWh in 2021 and 90 TWh in 2020, mainly from external sources.

In **North America**, TotalEnergies sold 305 TWh of natural gas in 2022 from its own production or from external resources, compared to 258 TWh in 2021 and 226 TWh in 2020.

### 2.1.3.5 LPG, PETCOKE AND SULFUR TRADING AND TRANSPORTATION

#### LPG, PETCOKE AND SULFUR TRADING

TotalEnergies is also active in markets other than natural gas, LNG and electricity, such as LPG, petcoke and sulfur.

In 2022, TotalEnergies traded and sold 7 Mt of LPG (propane and butane) worldwide, compared to 6.4 Mt in 2021 and 6.2 Mt in 2020. Almost 20% of these quantities came from fields or refineries operated by the Company. This trading activity was conducted using 12 long-term chartered vessels. In 2022, 252 journeys were necessary for transporting the quantities traded, including 173 journeys by TotalEnergies' long-term chartered vessels and 79 journeys by spot-chartered vessels.

TotalEnergies sells petcoke produced by the Port Arthur refinery in the United States and the Jubail refinery in Saudi Arabia. Petcoke is sold to cement producers and electricity producers, mainly in China, India, as well as in Mexico, Brazil, other Latin American countries and Turkey. In 2022, 2.8 Mt of petcoke was sold on the international market, compared to 2.5 Mt in 2021 and 2.3 Mt in 2020.

TotalEnergies also sells sulfur, mainly from the production of its refineries. It sold 2.5 Mt of sulfur in 2022, compared to 2 Mt in 2021 and 1.8 Mt in 2020.

In 2015, TotalEnergies ceased its coal production activities, and it stopped selling and trading coal in 2016.

#### TRANSPORT OF NATURAL GAS

TotalEnergies holds interests in gas pipelines (refer to point 2.3.10 of this chapter) located in Brazil and Argentina.

### 2.1.3.6 PROMOTION OF INNOVATION IN ELECTRICITY SECTOR

As part of its transformation into a multi-energy company, in May 2022 TotalEnergies launched "TotalEnergies On", its startup acceleration program at Station F, the world's largest startup campus, located in Paris. In line with TotalEnergies' ambition to be a major player in the energy transition, *TotalEnergies On* intends to support the development of new companies in the electricity and renewable energy sector.

The objective of this program is to identify and support startups developing digital solutions in the field of electricity, whether it is renewable production, storage, trading, sales, decentralized network management, or electric mobility.

TotalEnergies and Station F have already welcomed 20 startups in the program. They benefit from easy access to the Company's experts and a field of experimentation for their development within TotalEnergies' businesses.

TotalEnergies will be able to acquire an equity stake in the most promising ones.

This new program replaces the activity of TotalEnergies Ventures (TEV), which was the venture capital arm of TotalEnergies.

### 2.1.3.7 ENERGY EFFICIENCY SERVICES

GreenFlex is a wholly owned subsidiary offering services designed to improve the energy and environmental performance of its customers. GreenFlex had more than 800 customers and employed 520 people at the end of 2022.

# 2.2 Exploration & Production segment

The Exploration & Production (EP) segment encompasses the oil and natural gas exploration and production activities (excluding LNG) in about 50 countries, as well as the Carbon Neutrality activities which have been affiliated to the EP segment, since September 2021.

**Main indicators**

| | | |
|---|---|---|
| **2.3 Mboe/d** Hydrocarbons produced in 2022 | **$26.1 B** DACF[(1)] in 2022 | **$7.5 B** of organic investments[(2)] in 2022 |

**Production**

| Hydrocarbon production | 2022 | 2021 | 2020 |
|---|---|---|---|
| EP *(kboe/d)* | 2,296 | 2,290 | 2,341 |
| Liquids *(kb/d)* | 1,466 | 1,437 | 1,474 |
| Gas *(Mcf/d)* | 4,492 | 4,662 | 4,727 |

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

## 2.2.1 Presentation of the segment

In order to contribute to the transformation of TotalEnergies and the achievement of the Company's ambition by 2050, EP relies on the commitment, technical expertise and diversity of its employees, its operational excellence and its local roots, particularly in Africa, Northern Europe and the Middle East, and articulates its strategy around three main areas:

- meeting global energy demand in a profitable manner by ensuring the stability in the decade of its oil and gas production, transported by gas pipelines,
- reducing greenhouse gas emissions:
  - by conceiving designs that will avoid emissions on new projects as much as possible,
  - by implementing projects to reduce, capture and store emissions at its existing sites,
  - by offsetting Scope 1+2 residual emissions through the development of natural carbon sinks and by offering its customers solutions for capturing, transporting and storing their $CO_2$, thus enabling the Company to reduce its Scope 3 emissions.
- while placing sustainable development at the heart of its operations and projects.

The safety of employees, stakeholders and facilities, drives the day-to-day implementation of this strategy.

In order to maximize the value of its assets, EP is pursuing its efforts with discipline to maintain its competitive advantage as a low-cost producer (approximately $5/boe), maintain a level of availability of its facilities above 93% and start its projects on time and within budget.

In addition, TotalEnergies assesses its EP investment projects by considering an environment of $50/b and a $CO_2$ price of $100/t from 2024 in all countries, and focuses on projects with costs of less than $20/boe or where the break-even is less than $30/b and whose GHG emissions (Scope 1+2) intensity of the Company is less than 19 Kg $CO_2$/boe.

Finally, the Company continues to dynamically manage its portfolio by restructuring or disposing its low performing EP assets and accessing new low-cost and low-emission resources through exploration on the one hand and acquisition of resources already discovered on the other.

(1) DACF = debt adjusted cash flow. The operating cash flow before working capital changes w/o financial charges of the segment is defined as cash flow from operating activities before changes in working capital at replacement cost, without financial charges except those related to lease agreements.
(2) Organic investments = net investments, excluding acquisitions, divestments and other operations with non-controlling interests (refer to point 1.6.1. of chapter 1).

## 2.2.2 Management of GHG emissions

TotalEnergies aims to achieve carbon neutrality (zero net emissions) by 2050, together with society, and EP contributes to this ambition by working first to avoid and reduce emissions on its facilities and then compensate the Company's residual emissions.

The goals of EP in this area, in line with those of the Company, are based on three key elements **"avoid, reduce, compensate":**

- avoid GHG emissions by prioritizing the production of resources with the least impacts in terms of carbon footprint and by designing low-carbon infrastructures and procedures,
- reduce GHG emissions by developing and implementing a systematic approach to identify and implement the best available technologies for reducing GHG emissions (Scopes 1+2) and, if necessary, storing captured $CO_2$ underground,
- compensate residual GHG emissions by developing natural carbon sinks (nature-based solutions).

To this end, in September 2021, TotalEnergies created a new Carbon Neutrality division within EP, tasked with developing a global approach that will help to generate synergies. This division covers the following activities:

- Carbon Footprint Reduction (CFR) has the mission to reduce EP carbon emissions,
- Carbon Capture and Storage (CCS) has the mission to reduce the Company's GHG emissions (Scope 1+2) and its clients' emissions by developing a transport and storage offer,
- Nature Based Solutions (NBS) whose mission is to compensate residual carbon emissions of the Company.

### 2.2.2.1 REDUCTION OF THE CARBON FOOTPRINT

The Carbon Footprint Reduction (CFR) entity manages the reduction of emissions from oil & gas assets, both operated and non-operated, and consolidates the efforts implemented by all of EP's subsidiaries in this area, in particular to eliminate flaring and methane emissions, improve energy efficiency and electrify processes.

Thus, on operated assets, the CFR entity assists the subsidiaries to develop GHG emissions reduction projects in order to:

- reduce GHG emissions (Scope 1+2) from facilities and contribute to the Company's target of reducing them to 38 Mt $CO_2$e/y by 2025,
- reduce routine flaring to less than 0.1 Mcm/d by 2025, with the goal of eliminating it by 2030,
- reduce methane absolute emissions by 50% between 2020 and 2025, and by 80% between 2020 and 2030,
- maintain the intensity of methane emissions below 0.1% of commercial gas produced on gas facilities.

At the same time, as part of the Company's overall program to improve the energy efficiency of its facilities (budget of $1 billion for 2023-2024), EP has identified more than 150 new initiatives to be carried out.

The CFR entity also coordinates:

- the communication with operators and partners in order to encourage them to implement emissions reduction projects on the assets that the Company does not operate itself,
- the implementation of the OGMP2.0 (Oil and Gas Methane Partnership 2.0[1]), to which TotalEnergies subscribed in November 2020. In 2022, the International Methane Emissions Observatory (IMEO), a UNEP (United Nations Environment Program) initiative, recognized TotalEnergies' efforts as a major player in reducing methane emissions and confirmed its "Gold Standard" status under the OGMP 2.0.

In addition to the constant efforts deployed on projects to reduce emissions from existing assets, it is also essential to raise awareness among all employees on the need to reduce GHG emissions and the Company has set up internal training sessions on climate change.

### 2.2.2.2 $CO_2$ CAPTURE, STORAGE AND UTILIZATION

TotalEnergies believes that carbon capture and storage (CCS) is one of the necessary levers of combating climate change. Thus, the Company is developing new businesses that will enable its industrial, residential and power-generating customers to capture, store and valorize their $CO_2$ emissions, by studying new industrial solutions tested on its own facilities.

Thus, the Company aims to develop a $CO_2$ storage capacity of more than 10 Mt/y from 2030, for its own facilities and its customers. TotalEnergies is developing new business and industrial models associated with this value chain and plans to gradually increase its investments in this area to around 300 million dollars per year, compared to around $100 million in 2022.

In **Norway**, in May 2020, TotalEnergies and its partners launched the development of the Northern Lights project, the world's first commercial $CO_2$, transportation and storage project, with a capacity of 1.5 Mt $CO_2$/y. This project, supported by Norway, is expected to store emissions from two industrial sites located in the Oslo region (a Norcem Cement plant for 0.4 Mt $CO_2$/y and a Celsio waste incinerator for 0.4 Mt $CO_2$/y), as well as a Yara ammonia and fertilizer plant located in the Netherlands (0.8 Mt/y). Studies are progressing to expand the capacity to 5 Mt $CO_2$/y by 2026.

In the **Netherlands**, TotalEnergies is studying the injection of $CO_2$ through the wells and platforms it operates which were used initially to produce gas. The project aims to store $CO_2$ permanently in depleted offshore gas reservoirs at a depth of about 4 kilometers. In 2021, TotalEnergies and its partners launched the Aramis project. The aim of this project is the development of new $CO_2$ transportation infrastructure connecting Rotterdam to depleted offshore gas fields. The design studies of phase 1 of the project were completed in 2022 with the goal of storing the first volumes of $CO_2$ in 2027.

TotalEnergies is studying other projects, in collaboration with other industries and partners.

In the **United Kingdom** the Company is part of the Northern Endurance Partnership. This joint venture was created to develop a project which includes collecting $CO_2$ in the industrial regions of Teesside and Humberside, transporting it offshore and storing it in a saline aquifer at respectively 85 km and 145 km from shore. In 2022, two new exploration blocks were obtained and appraisal work launched. These blocks could potentially be used for expansion phases for the project.

(1) Source: An Eye on Methane: International Methane Emissions Observatory 2022 Report, UNEP (United Nations Environment Program).

TotalEnergies is also growing in **Denmark** where the Company recently obtained a storage license on two exploration blocks and has begun preliminary and conceptual studies with other partners for the Bifrost project.

Finally, TotalEnergies is part of the joint venture, with a 26% interest, that was awarded a $CO_2$ storage assessment permit off the northwest coast of **Australia** in August 2022. This project complements existing solutions to avoid and reduce greenhouse gas emissions from Ichthys LNG.

#### 2.2.2.3 NATURAL CARBON SINKS

While TotalEnergies' priority is first to avoid and then to reduce its emissions, the net emissions targets for Scope 1+2 take into account the contribution of nature-based carbon sink projects, that is to say sequestration projects, such as reforestation or regenerative agriculture or conservation projects that protect environments where significant amounts of carbon are already stored.

TotalEnergies intends to invest up to $100 million per year on average between 2020 and 2030 with the objective to reach a stock of 100 Mt of carbon credits by 2030 and an annual quantity of carbon credits issued of at least 5 Mt of $CO_2$/y from 2030. These credits will be certified according to the highest standards of environmental and social management. The projects are designed to respect the resource regeneration cycles and contribute to provide social, economic and environmental benefits for local communities, on which the projects generally rely.

The stock of credits established at year-end 2022 amounts to a little less than 7 million certified credits (carbon credits certified by a third-party). The cumulated budget committed on all of the ongoing agreements amounts to close to $675 million, on the project's cumulated lifespans, for a cumulated volume of credits expected between 45 million by 2030 and 69 million by 2050.

In 2022, TotalEnergies entered into new partnerships and agreements with recognized actors in Gabon, Peru, South-East Asia and Guatemala. In June 2022 in particular, TotalEnergies and Compagnie des Bois du Gabon (CBG) joined forces to develop a forward-looking model of sustainable and responsible forest management that combines sustainable harvesting, biodiversity conservation, and long-term carbon storage. TotalEnergies became CBG's leading partner after acquiring 49% of its capital from Criterion Africa Partners. In March 2022, TotalEnergies participated for $50 million in the Tropical Asia Forest Fund 2 (TAFF2) managed by the New Forests company, whose objective is to invest in certified plantation and primary forest conservation projects in several South-East Asia countries, including Indonesia, Malaysia, Laos, Cambodia, Thailand, and Vietnam.

In 2021, TotalEnergies and Forêt Ressources Management signed a partnership agreement with the Republic of the Congo to plant a 40,000-hectare forest on the Batéké Plateau. The new forest is expected to create a carbon sink that could sequester more than 10 Mt of $CO_2$ over 20 years.

## 2.2.3 Activities by geographical zone

The information below describes the Exploration & Production segment's main oil and gas activities by geographical area, without giving details of all of the assets held by TotalEnergies. The capacities referred to herein are expressed on a 100% basis, regardless of TotalEnergies' interest in the asset. TotalEnergies' average annual and daily production of liquids and gas by country for 2022, 2021 and 2020 are presented in the tables "Production by geographical area" in section 2.3.3 of this chapter. For information as of December 31, 2022, concerning TotalEnergies' interest in each asset (share in %) and to determine whether the Company operates the asset, refer to the table entitled "Assets in production by geographical area" in point 2.3.3 of this chapter.

#### 2.2.3.1 AFRICA (EXCLUDING NORTH AFRICA)

In **Nigeria**, the Company's production is mainly offshore. TotalEnergies is the operator of five production licenses (OMLs) out of the 31 licenses in which TotalEnergies has an interest[1].

TotalEnergies has offshore operations on the following licenses:

- OML 130 (24%, operator), with Akpo and Egina fields in production and where the development studies for Preowei field continued in 2022,
- OML 99 (40%, operator), where production of Ikike field started in July 2022 and reached its plateau at the end of 2022,
- OML 102 (40%, operator), where the drilling of Ntokon Central exploration well started in January 2023,
- OML 139 (18%), where study of the development plan of the Owowo discovery continues. This discovery is close to OML 138 (20%), where the Usan field is in production and for which the license and the production sharing contract were renewed in August 2022 for a period of 20 years.

TotalEnergies is also present onshore, notably through the SPDC joint venture (10%), which has 15 production licenses (plus 3 offshore licenses) following the relinquishment of interests in OML 11 in May 2022. In 2022, TotalEnergies announced its willingness to sell its interest in the SPDC oil licenses except OML 28 and OML 23.

In **Angola**, where TotalEnergies is the largest operator, the Company's production comes from Blocks 17, 32, 0, 14 and 14K:

- on Block 17 (38%, operator), the Company's main asset in the country, located in deep offshore, four major hubs are in production: Girassol, Dalia, Pazflor and CLOV. In April 2020, all production licenses were extended to 2045. Since then, Sonangol holds a 5% interest and will obtain an additional 5% interest in 2036. Various infill drilling projects are being carried out. The drilling of the Zinia-4 exploration well was performed in October 2022 with a negative result,
- on Block 17/06 (30%, operator), the development of Begonia field was sanctioned in July 2022. Production will be connected to Pazflor FPSO, located in Block 17, and start-up is scheduled for late 2024,
- on Block 32 (30%, operator), located in deep offshore, production comes from FPSOs Kaombo Norte and Kaombo Sul. The discoveries in the central and northern parts of the block (outside Kaombo) offer additional potential, currently being assessed. Drilling progressed with 50 wells already drilled out of the 59 initially planned, at the end of 2022. A drilling rig is dedicated to Block 32 in 2023,
- on Block 0 (10%), production comes from different fields. Drilling resumed in 2022 and is expected to continue throughout 2023,

(1) Including through its stake in the SPDC joint venture.

- on Block 14 (20%)[1], production comes from the Tombua-Landana and Kuito fields as well as the BBLT project, comprising the Benguela, Belize, Lobito and Tomboco fields,
- on Block 14K (10%)[2] production comes from the Lianzi field located in the offshore unitized area between Angola (Block 14) and the Republic of the Congo (Haute Mer license).

Net production from Blocks 14 and 14K, held by Angola Block 14 B.V. (TotalEnergies, 50.01%), was 7 kboe/d in 2022.

In December 2022, the company Angola Block 14 B.V., in which TotalEnergies held a 50.01% stake, was sold to the Angolan company Somoil.

In 2020, TotalEnergies completed its acquisition of interests in Blocks 20/11 (50%) and 21/09 (80%), located offshore in the Kwanza basin, off the coast of Luanda. TotalEnergies became the operator of the two blocks, where several discoveries have been made. The drilling of an appraisal well took place in 2021 on the Golfinho field, on the Block 20/11, and studies are in progress with the aim of developing on these two blocks a new production hub in the country.

TotalEnergies has an exploration license on Block 48 (40%, operator), on which an exploration well (Ondjaba-1) was drilled in 2021 with negative results. In the context of the 2019 Bid Round, TotalEnergies obtained a license on Block 29, awarded in August 2021.

In the **Republic of the Congo** (Congo Brazzaville), the Company's production comes from the TotalEnergies EP Congo subsidiary, owned by TotalEnergies (85%) and QatarEnergy (15%).

Two assets operated by TotalEnergies EP Congo are in production in the Haute-Mer license (53.5%, operator): the Moho Bilondo field and the Moho Nord field. The production of these two fields was of 100 kboe/d in 2022.

TotalEnergies EP Congo withdrew from the Loango II and Zatchi II licenses (also known as "Madingo"), in September 2021.

TotalEnergies EP Congo owns 26.75% of the Lianzi field located within the offshore unitization zone between Angola (Block 14K) and the Republic of Congo (Haute Mer license).

The concession for the operation of Djeno (63%), the sole oil terminal in the country, expired in November 2020 and negotiations for the new concession are ongoing. During this negotiation phase, TotalEnergies EP Congo continues to operate the oil terminal under an interim agreement. The new terminal concession should come into effect in 2023.

The Republic of the Congo awarded three new exploration licenses to TotalEnergies in February 2020: Marine XX, deep offshore, as well as Nanga and Mokelembembe. An exploration well is planned on the Marine XX license in 2023. A notification of exit from the Mokelembembe license zone was sent to the authorities in December 2021.

In **Gabon**, since the sale of its interest in seven non-operated offshore licenses to Perenco Oil & Gas Gabon, finalized in December 202. DTotalEnergies EP Gabon[3] refocused its activities on its operated assets managed under the concession agreement of Anguille-Torpille (100%, operator) and the Production Sharing Contract of Baudroie-Mérou (90%, operator – 10% Republic of Gabon). In 2022, the fiscal terms of the Baudroie-Mérou production sharing contract as well as those of Torpille/Anguille Concession Agreement were revised and extended respectively until 2047 and 2042. In December 2022, The Republic of Gabon took a 10% interest in TotalEnergies' Production and Sharing Contract Baudroie-Mérou.

In **Uganda**, TotalEnergies is a partner, with a 56.67% interest, in the project to develop the Lake Albert oil resources located in Blocks CA-1, LA-2 and CA-3A, following its acquisition of Tullow's interest in the project in November 2020 and the entry of UNOC, Uganda's national oil company, with a 15% interest. TotalEnergies is also a shareholder in East African Crude Oil Pipeline Ltd (EACOP, 62%), the company responsible for developing and operating of a pipeline of close to 1,450 km that will transport the crude oil to a storage and offloading terminal in Tanga, Tanzania.

After taking into consideration the societal and environmental challenges, the project was approved by the Board of Directors in December 2020. The production capacity is planned to be 230 kb/d and will include the joint development of the resources in Blocks CA-1 and LA-2 (the Tilenga project operated by TotalEnergies) and Block CA-3A (the Kingfisher project, operated by CNOOC). It will include the drilling of approximatively 450 onshore wells and the construction of two crude oil processing facilities. The final investment decision was announced in February 2022 and production is expected to start in 2025.

Firmly committed to transparency, the guiding principle for all its actions, TotalEnergies publishes detailed information on the social, environmental and societal issues related to this project.

In **South Africa**, TotalEnergies operates five deep offshore exploration licenses: the South Outeniqua Block (100%), Block 11B/12B (45%), the ODB Block (48.6%, following the partial transfer of a 29.2% interest to Qatar Energy in 2021), the DWOB Block (50%, following the partial transfer of a 30% interest to QatarEnergy in 2021), as well as Block 5/6/7 (40%) in the Orange basin. TotalEnergies sold its interest in the East Algoa license (30%) in 2020. This transaction was approved by governmental authorities in December 2021.

On offshore Block 11B/12B, following a discovery of gas and condensate made in January 2019 by the first exploration well Brulpadda-1Ax, TotalEnergies conducted 3D and 2D seismic acquisitions. A second discovery of condensate gas, adjacent to Brulpadda, was made in October 2020 and named Luiperd. In September 2022, TotalEnergies filed an application for an operating license and is negotiating the marketing conditions for gas and condensate with the South African authorities to enable a development of the discovery.

In **Namibia**, TotalEnergies operates two deep offshore exploration licenses in the Orange basin: Blocks 2912 (38%) and 2913B (40%). Following the drilling of an exploration well on Block 2913B, TotalEnergies announced a significant discovery of light oil and associated gas on Venus prospect in February 2022. The drilling of an appraisal well (Venus-1A) is planned for 2023 with a production test. A production test is also planned in the Venus-1 discovery well.

On Block 2912, a 3D seismic acquisition was launched in December 2022 and the drilling of an exploration well is planned for 2023.

In **Mauritania**, the effort to rationalize the exploration acreage continues. TotalEnergies returned Blocks C9, C7 and C18 in 2020 as well as Block C31 in October 2022. TotalEnergies is continuing exploration activities on the remaining Block C15 (90%), where a 3D seismic survey was acquired in 2020. The first exploration phase of this block has been extended until the end of December 2022, and an extension of an additional six months has been obtained to assess the interest of entering into the second phase.

In **Senegal**, TotalEnergies is pursuing exploration activities on two operated offshore blocks, Rufisque Offshore Profond (ROP, 60%) and Ultra Deep Offshore (UDO, 70% following the partial sale of a 20% interest in October 2020). A 3D seismic survey was acquired on the UDO Block in late 2020 - early 2021 and its interpretation is continuing.

(1) Interest held through Angola Block 14 BV (TotalEnergies 50.01%).
(2) Interest held through Angola Block 14 BV (TotalEnergies 50.01%).
(3) TotalEnergies EP Gabon is a company under Gabonese law. Its shares are listed on Euronext Paris and at December 31, 2022 were owned by TotalEnergies (58.28%), the Republic of Gabon (25%) and the public (16.72%).

In **Kenya**, TotalEnergies holds interests in onshore permits (10BA, 10BB and 13T). On Blocks 10BB and 13T, TotalEnergies is studying the different options to monetize the oil discoveries made. In September 2021, TotalEnergies finalized the sale to QatarEnergy of a part of its interests in offshore Blocks L11A, L11B and L12, where an exploration well was finalized in March 2022 with a negative result. In November 2022, the Company initiated a procedure to withdraw from these licenses, subject to the authorities' approval.

In **Côte d'Ivoire**, TotalEnergies no longer holds any license, after having returned the offshore Blocks CI-605 (90%) in August 2021, CI-706 (45%) in December 2021, and CI-705 (45%) in June 2022, following the negative results of the Barracuda-1 exploration well in August 2021.

In **São Tomé and Príncipe**, TotalEnergies holds two exploration licenses granted in 2019, one for Block ST-1 and the other for Blocks JDZ-7, 8, 11 in the joint development area between São Tomé and Príncipe and Nigeria. Two 3D seismic surveys were carried out in 2021 on these blocks and their interpretation is under way.

In **Ghana**, TotalEnergies announced its decision in 2020 not to pursue the acquisition of the assets held by Anadarko Petroleum Corporation (24% of the Jubilee field and 17% of the TEN field).

## 2.2.3.2 AMERICAS

In the **United States**, TotalEnergies' oil and gas production in the Gulf of Mexico comes from its interests in the Tahiti (17%) and Jack (25%) deep offshore fields.

Moreover, TotalEnergies holds interests in two deep water projects, Anchor (37.14%) and Ballymore (40%). The development of Anchor, with a planned plateau production capacity of 80 kboe/d, is continuing, with production scheduled to begin in 2024. The investment decision for the Ballymore (40%) project was made in May 2022 and its commissioning is scheduled for 2025.

In February 2022, TotalEnergies announced its withdrawal from the North Platte project (60%). The transfer of its entire stake to Equinor after a regulatory process with the US authorities came into effect in May 2022.

In exploration, TotalEnergies launched in 2022, an effort to streamline its exploration licenses in the Gulf of Mexico and completed the disposal of its stakes in seven deep offshore licenses, initially owned 100%.

In **Canada**, production consists of bituminous oil sands. TotalEnergies has a 50% interest in Surmont, a Steam-Assisted Gravity Drainage (SAGD) production project, and at year-end 2022, a 24.58% interest in the Fort Hills mining extraction project, both in the province of Alberta.

TotalEnergies confirmed its project to spin-off its affiliate, TotalEnergies EP Canada, by listing it on the Toronto stock exchange. TotalEnergies intends to retain a 30% stake in the listed entity and to distribute 70% of the shares to TotalEnergies SE's shareholders, through a special dividend in kind. The draft resolutions, drawn-up as at the date of this Universal Registration Document, plan for this transaction to be submitted to a vote at the Annual Shareholders' Meeting to be held on May 26, 2023. In January 2023, in the context of its future listing, TotalEnergies EP Canada Ltd announced that it had exercised its pre-emption right to acquire an additional 6.65% interest in the Fort Hills Energy Limited Partnership, and in associated sales and logistics agreements from Teck Resources Limited. The transaction was closed on February 2, 2023.

In **Argentina**, TotalEnergies operated approximately 23% of the country's gas production in 2022.

In Tierra del Fuego, on the CMA-1 concession, TotalEnergies operates the Ara and Cañadón Alfa Complex onshore fields and the Hidra, Carina, Aries and Vega Pleyade offshore fields (37.5%). In September 2022, the Company approved the final investment decision for the Fenix offshore gas project (37.5%, operator) with a capacity of 10 $Mm^3/d$ of natural gas, which is expected to come into production in 2025.

In the onshore Neuquén Basin, TotalEnergies holds interests in 9 licenses and operates 5 of them, including Aguada Pichana Este and San Roque. In addition to conventional projects, TotalEnergies operates three shale gas and shale oil projects. The first one located in the Aguada Pichana Block, in the gas window of Vaca Muerta; the second one located in the Rincón la Ceniza Block (45%), in the gas and condensate window of Vaca Muerta and the third one located in the Aguada San Roque Block (24.71%), in the oil window of Vaca Muerta.

The second development phase, launched in 2018, on Aguada Pichana Este is continuing and 14 wells were drilled in 2022. In the Aguada Pichana Oeste, the operator began a new development phase in 2021. This encompasses the drilling of around sixty wells until 2024, a new pipeline and a processing plant that were commissioned in 2022.

In exploration, TotalEnergies operates three offshore licenses: CAN 111, CAN 113 (50%) and MLO 123 (37.5%) since 2019.

In **Bolivia**, TotalEnergies has interests in six licenses, five of which are in production: San Alberto (15%), San Antonio (15%), Block XX Tarija Oeste (Itau, 41%), Aquio and Ipati (50%, operator) which include the Incahuasi field. On the Azero exploration license (50%, operator), the NCZ-X1 exploration well proved dry and has been plugged and abandoned; the block was returned to the Bolivian authorities in 2022.

In **Brazil**, the Company's production comes from Libra (20%), Lapa (45%, operator), Iara (22.5%), Atapu (22.5%) and Sépia (28%) in the Santos Basin.

On the Libra Block, situated about 170 km offshore Rio de Janeiro, production began in 2017 on Mero field with the Pioneiro de Libra FPSO (with capacity of 50 kb/d).

At year-end 2022, the Mero development project comprised four FPSOs, each with a liquid processing capacity of 180 kb/d:

- Mero 1, approved in 2017, started up in April 2022,
- Mero 2, approved in 2019, scheduled for start-up in 2023,
- Mero 3, approved in 2020, scheduled for start-up 2024,
- Mero 4, approved in 2021, scheduled for start-up in 2025.

On Iara, the P-68 FPSO is dedicated to production of the Berbigão and Sururu-Ouest fields, reached its nominal production capacity in 2022. The P-70 FPSO is dedicated to production of the Atapu field and has been producing at capacity (150 kb/d) since July 2021.

Two additional production sharing contracts (TOR-Surplus PSCs) on the Atapu (22.5%) and Sépia (28%) fields were awarded to TotalEnergies in December 2021 and became effective in May 2022. The P-70 FPSO for the Atapu field and the FPSO Carioca for Sépia field, are both producing at their nominal capacities of 150 kb/d and 180 kb/d respectively. Development plans for an additional FPSO on each field were filed in October 2022. In the Sépia area, an additional discovery was made thanks to the drilling of the Pedunculo well in 2022.

On Lapa, production continues on the MV-27 FPSO that has a capacity of 100 kb/d. The Lapa South West project was approved in January 2023 and is expected to bring 25 kb/d of additional production in 2025.

TotalEnergies holds an interest in the Gato de Mato field (20%), discovered in 2012. The field's resources were confirmed with the GDM#4 well, drilled in 2020. Development studies continued in 2022, and the operator announced a postponement of 12 to 18 months of, the final investment decision, which was initially planned for 2023.

TotalEnergies sold its 28.6% interest in the BM-C-30 Block in 2021, and its 40% stake in the Itaipu field located in the BM-C-32 Block in the Campos Basin is in the process of being sold.

In exploration, the drilling of the first exploration well on the C-M-541 Block (40%, operator), Marolo-1, ended in July 2022. The drilling of the second well, Ubaia-1, started in 2022 and is expected to be completed in 2023.

In 2022, TotalEnergies was awarded two new exploration concessions in the South Santos Basin (in November), the S-M-1711 and S-M-1815 Blocks (100%, operator), and a new exploration block in the Campos Basin (in December), Agua Marinha (30%). The signature of the production sharing contract of this new block is expected in the first semester of 2023. In addition, TotalEnergies holds an interest in an exploration license currently suspended, located in the Barreirinhas basin (50%).

As part of their strategic alliance, TotalEnergies and Petrobras signed an agreement in 2017 to promote technical cooperation between the two companies in areas of common interest, notably for the development of new technologies, particularly in deep offshore.

In **Venezuela**, TotalEnergies sold its 69.50% stake in the Yucal Placer field in July 2022 to a subsidiary of Sucre Energy Group. Together with the operator, TotalEnergies returned the license for Plataforma Deltana Block 4 (49%).

As of December 31, 2022, TotalEnergies no longer has assets in Venezuela (refer to point 3.2.1 of chapter 3). A process of dissolution of its subsidiaries registered in the country is being finalized.

In **Suriname**, TotalEnergies operates Block 58 (50%), where three exploration wells (Krabdagu-1, Dikkop-1 and Awari-1) and an appraisal well (Sapakara South-2) were drilled in 2022. Drilled to the south of the Sapakara South-1 discovery, the Sapakara South-2 well confirmed the reservoir quality. The Krabdagu-1 exploration well, drilled in the central area of Block 58, resulted in a significant discovery of oil and associated gas announced by the Company on February 2022.

In **Mexico**, TotalEnergies holds licenses in seven offshore exploration blocks in the Gulf of Mexico: Block 2 (50%, operator), located in the Perdido Basin, Blocks 1 (33.33%) and 3 (33.33%), located in the Salina Basin, Blocks 15 (50%[1], operator), 32 (50%), 33 (35%, operator) and 34 (27.5%), located in the shallow waters of the Campeche Basin. TotalEnergies launched a process for returning Block 2 and notified the regulator, CNH, of its withdrawal from Block 32. The operators of Blocks 1, 3 and 34 have also initiated the processes for returning these blocks. An exploration well on Block 33 and another one on Block 15 are planned to be drilled in 2023.

In **Guyana**, TotalEnergies (60%) holds jointly with QatarEnergy (40%) 25% interests in the Kanuku and Orinduik Blocks. An exploration well, Beebei, was drilled on the Kanuku Block in 2022. TotalEnergies also holds an interest in the Canje Block (35%).

### 2.2.3.3 ASIA-PACIFIC

In **Kazakhstan**, oil and gas production comes mainly from the Kashagan field, operated by the North Caspian Operating Company (NCOC), and located in the North Caspian license (16.81%). The oil production capacity of the first phase of the field and the associated processing plant, which started in 2016, was increased from 400 kb/d to 430 kb/d, notably due to the upgrade of the gas injector compressors modules, completed in 2022. The production in 2022 was impacted by a 3-month partial shutdown following leaks on the gas treatment unit.

On the Dunga field (60%, operator), phase 3 development continued in 2022. On November 28, 2022, TotalEnergies announced the sale of its subsidiary Total E&P Dunga GmbH to the Kazakh company Oriental Sunrise Corp Ltd. The transaction is subject to approval by the Kazakh authorities and the partners' waiver of their pre-emption rights.

In **Thailand**, the condensates and gas production of the Company came from the Bongkot (33.33%) offshore gas and condensate field, located in Blocks 15, 16 and 17. This, was purchased in its entirety by PTT, the state-owned oil and gas company. The Block 15 license expired in April 2022 and those of Blocks 16 and 17 in March 2023. Thus, as from this date, the Company no longer produces hydrocarbons in the country.

In **China**, the Company's production comes from the South Sulige Block (49%) located in the Ordos Basin of Inner Mongolia. Tight gas development wells are being drilled and a new development plan was approved in May 2022 to increase production from 3 Bcm/y to 4 Bcm/y.

TotalEnergies held a 49% interest and was operator of the Taiyang exploration block, located in the China sea, until the license expired on May 31, 2022.

In **Myanmar**, the Company's production came from the Yadana, Sein and Badamyar gas fields (31.24%, operator), located in the offshore Blocks M5 and M6. The gas was primarily delivered to Thailand's national oil company PTT, for Thai power plants, and to the domestic market through an offshore pipeline built and operated by MOGE, Myanmar's state-owned company. TotalEnergies also held a 40% stake in the A6 exploration license located in deep offshore waters west of Myanmar.

In January 2022, TotalEnergies announced its decision to withdraw from the country, both as operator and as shareholder. In the context of the continuing deterioration of the human rights situation in Myanmar, this decision resulted from the assessment that TotalEnergies was no longer able to make a sufficiently positive contribution in the country and was not able to meet the expectations of stakeholders, who were asking to stop the revenues going to the state of Myanmar from the production of the Yadana field.

From January 2022 to its withdrawal, effective in July 2022, TotalEnergies has continued to act as a responsible operator and has undertaken due diligence to ensure its withdrawal in a responsible manner towards its stakeholders in Myanmar, including its employees as well as the long-standing supported local communities. As such, TotalEnergies worked closely with PTT, which was appointed as the new operator by the project's partners, to guarantee the continuity and safety of production at the Yadana gas field while ensuring an orderly transfer of operations.

All of our 237 employees in Myanmar were offered employment with the new operator, under the same job and salary conditions; only 16 refused (for personal reasons or due to early retirement).

In **Brunei**, production comes from the Maharaja Lela Jamalulalam offshore gas and condensate field located in Block B (37.5%, operator); and whose the gas is delivered to the Brunei LNG liquefaction plant.

In March 2020 TotalEnergies completed its sale of Total E&P Deep Offshore Borneo BV, a wholly owned affiliate that holds an 86.95% interest in Block CA1, located 100 kilometers off the coast of Brunei.

In **Indonesia**, production comes from the Ruby gas field located in the Sebuku license (15%).

In **Papua New Guinea**, TotalEnergies holds interests in the PPL339 (35%), PPL589 (100%) and PPL576 (100%) exploration licenses.

In **Malaysia,** TotalEnergies holds interests in offshore exploration licenses, where an exploration well Tepat-2 was drilled in the state of Sabah in 2022.

In **Tajikistan,** TotalEnergies holds a 50% interest in an exploration license, after the acquisition of a 16.65% stake from Kulob Petroleum in 2022.

(1) The transaction for the entry of QatarEnergy on Blocks 15, 33 and 34 was finalized in 2021 and brought TotalEnergies' interest in these blocks to 50%, 35% and 27.5%.

## 2.2.3.4 EUROPE

The specific context of **Russia** and its consequences on TotalEnergies are detailed in point 1.10.3 of chapter 1.

In **Norway**, production comes from many fields:

- Ekofisk (39.9%), Eldfisk (39.9%), Embla (39.9%), Tor (48.2%) and Flyndre (6.26%). In 2021, the redevelopment of Tor was finalized in 2021 while the development of the Tommeliten Alpha field (20.23%), a satellite of the Ekofisk field, was approved,
- Johann Sverdrup field (8.44%), where production started in October 2019 and phase 2 came on stream in December 2022. Johann Sverdrup production facilities are powered from shore resulting in $CO_2$ emissions being very low, at only 0.67 kg per barrel of oil produced,
- Skirne (40%) and Atla (40%) fields, operated by TotalEnergies. On these mature fields, abandonment of wells and decommissioning of flowlines towards the Heimdal (16.76%) platform operated by Equinor, shall be completed before end 2028,
- Oseberg (14.7%), whose facilities also treat, among other fields, the production from Tune (10%). Electrification of the Oseberg installations with power supply from shore was approved by authorities in 2022,
- Islay (5.51%) located in the boundary with UK sector in the northern part of the North Sea and operated by TotalEnergies in the UK,
- Troll (3.69%), one of the largest oil producing fields on the Norwegian Continental Shelf, and Kvitebjørn (5%),
- Åsgard (7.68%), Tyrihans (23.15%) and Kristin (6%) located in the Haltenbanken region.

As part of the continuous optimization of its portfolio, TotalEnergies sold its interests in the Gimle (4.9%), Sindre (4.95%) and Nokken (5%) in May 2021.

In the **United Kingdom**, production comes from fields located in the following areas:

- Northern North Sea, where production comes from the Alwyn North (100%) and Dunbar (100%) fields, and their satellites,
- Central Graben area, where TotalEnergies operates the Elgin/Franklin complex (46.17%) which includes the West Franklin (46.17%) and Glenelg (58.73%) fields. TotalEnergies also operates the Culzean gas and condensates field (49.99%), which came on stream in June 2019 and on which the capacity of installations has been successfully increased, by about 10%, in March 2022. In addition, TotalEnergies announced an oil and gas discovery on the Isabella prospect (30%), located close to existing infrastructures operated by the Company. An appraisal well on this structure has been completed in January 2023, the results of which are currently being analysed,
- West of the Shetlands area, where TotalEnergies operates the producing fields of Laggan, Tormore, Edradour and Glenlivet. In January 2022, TotalEnergies signed an agreement to sell 20% of its stake in these fields to Kistos Energy Limited, reducing its interest to 40%. The transaction was approved by the authorities on July 10, 2022,
- Quad 9 area, located in Eastern North Sea, in which TotalEnergies operates the Gryphon (86.5%), Maclure (38.19%), South Gryphon (89.88%) and Tullich (100%) fields.

In **Denmark**, TotalEnergies operates the Danish Underground Consortium (DUC, 43.2%). Production comes from DUC's four main fields: Dan, Gorm, Halfdan, and Tyra. The Dan, Gorm and Halfdan production is mainly oil, while the Tyra production is mainly gas and condensates. Production of the Tyra field stopped in September 2019 as part of a redevelopment project and is expected to resume in winter 2023/2024. In October 2022 a record-breaking offshore lift of 17,000 tons was completed on this field when the new process module was installed. An appraisal well, drilled on the Harald satellite platform, is currently being analyzed.

In **Italy**, TotalEnergies operates the Tempa Rossa field (50%), located in the Gorgoglione concession in Basilicata region.

In the **Netherlands**, production originates from assets held in 22 offshore production licenses, of which 18 are operated. As part of the continuous improvement of its North Sea portfolio, in March 2021, TotalEnergies finalized the sale of its 22.46% interest in the K9ab-A unit.

In **Azerbaijan**, the Absheron gas and condensate field (50%), located in the Caspian Sea, and operated by JOCAP (Joint Operating Company of Absheron Petroleum, a company jointly held by TotalEnergies and SOCAR), is under development. The first development phase (production capacity of 35 kboe/d) is expected to start in summer 2023. The gas produced is expected to supply the domestic market.

In **Bulgaria**, TotalEnergies operates the deep offshore Han Asparuh exploration block (57.14%). A 3D seismic survey was conducted in 2020, following which geological interpretation work was carried out in 2021.The drilling of a new exploration well is being considered.

## 2.2.3.5 MIDDLE EAST AND NORTH AFRICA

In the **United Arab Emirates**, TotalEnergies' production, mainly oil, is sourced from different concessions.

Since 2018, TotalEnergies holds a:

- 20% interest in the Umm Shaif/Nasr offshore concession and a 5% interest in the Lower Zakum offshore concession both, operated by ADNOC (Abu Dhabi National Oil Company) Offshore. These two concessions have been awarded for 40 years, following the expiry of previous concession of Abu Dhabi Marine Areas Ltd (ADMA).
- 10% interest in the ADNOC Onshore concession, which encompasses Abu Dhabi's 15 major onshore fields; the license was extended for 40 years in 2015. The development activities on the Bab and Bu Hasa fields continued in 2022;
- 10% interest in ADNOC Gas Processing, a company that produces liquefied natural gas (LNG) and condensates from the associated gas produced by ADNOC Onshore;
- 24.5% interest in Dolphin Energy Ltd., which sells gas produced on Dolphin Block in Qatar to the United Arab Emirates and Oman.

The license for the Abu Al Bukoosh offshore field, which TotalEnergies has operated since 1972, expired in March 2021 and the facilities are now operated by ADNOC Offshore.

In 2018, the state-owned ADNOC signed an agreement with TotalEnergies granting it a 40% interest in the Ruwais Diyab Unconventional Gas Concession. TotalEnergies became operator in 2019. An exploration and appraisal campaign was conducted in 2020-2021.

TotalEnergies announced in March 2023 the acquisition of the following assets, subject to final approvals:

- a 20% participating interest in the Satah Al Razboot (SARB), Umm Lulu, Bin Nasher and Al Bateel (SARB and Umm Lulu) offshore concession. The SARB and Umm Lulu concession includes two major offshore fields and is operated by ADNOC Offshore,
- a 12.88% indirect interest in the Mubarraz concession held by Abu Dhabi Oil Company Ltd (ADOC) and that comprises four producing offshore fields.

In **Qatar**, production comes mainly from TotalEnergies' stakes in the offshore field of Al Khalij offshore field (40%, operator), Al Shaheen and Dolphin (24.5%), whose gas production is sold to the United Arab Emirates and Oman. On Al Shaheen, operated by North Oil Company, owned by TotalEnergies (30%) and QatarEnergy (70%), for 25 years since 2017, the development studies continued in 2022.

In **Libya**, production comes from the Waha onshore field (20,41%) and the El Sharara field located in onshore Blocks 129-130 (15%) and 130-131 (12%) and from Al Jurf field located in offshore Blocks 15, 16 and 32 (37.5%). The Mabruk field (37.5%), located in the onshore Blocks 70 and 87, has been shut down since the end of 2014 and is expected to restart its production in 2023.

In November 2021, TotalEnergies signed various agreements for the sustainable development of the country's natural resources, in particular the construction and operation of a 500 MW photovoltaic power plant, and to increase its interest in the Waha concession from 16.33% to 20.41%. This increase in interests was finalized in November 2022.

The production of Libyan assets was frequently disrupted during 2022, notably due to security and social issues.

In **Algeria**, production comes from TotalEnergies' interests in the TFT II and Timimoun gas fields and the oil fields in the Berkine basin located in Blocks 404a and 208.

Under the terms of the comprehensive partnership agreement signed in 2017 with the authorities, two new concession agreements and corresponding gas sales agreements came into effect for TFT II (26.4%) in 2018 and for TFT SUD (49%) in 2019. In June 202l, the acquisition of REPSOL's shares was finalized and TotalEnergies' interest in TFT II was consequently increased to 49%.

On Timimoun (37.75%), a concession agreement and a gas sales agreement became effective in 2018, replacing the previous contracts from 2012. Production at Timimoun began in 2018.

In the Berkine basin, TotalEnergies owns a 12.25% interest in Blocks 404a and 208, where the Ourhoud and El Merk onshore oil fields, are already in production and for which. TotalEnergies, its partners and Sonatrach, signed a new 25-year oil contract in July 2022.

In **Oman**, TotalEnergies produces oil on Block 6 (4%) and holds since December 2021, a 26.55% stake in Block 10, which started producing gas in January 2023. This gas will supply the Omani network, feeding both local industry and LNG export facilities. In addition, TotalEnergies signed an agreement with the Omani government to explore the resources of onshore Block 12 (80%) and recently, in October 2022, of onshore Block 11 (22.5%), where a 3D seismic acquisition campaign took place in 2022.

In **Iraq**, TotalEnergies' production comes primarily from its 22.5% interest in Halfaya field risk service contract, in Missan province. The plant that will treat associated gas and enable the recovery of LPGs and condensates, launched in 2019, is scheduled to come into operation in 2024. In 2022, production remained affected by OPEC+ production quotas.

The sale of the Company's 18% stake in the Sarsang field, located in the Kurdistan region of Iraq, was finalized in September 2022.

In September 2021, TotalEnergies signed major agreements with the Iraq authorities for the sustainable development of natural resources in the Basra region. These agreements cover:

- the construction of a new gas gathering network and treatment units to supply local power stations and limit flaring of the participating gas fields, with TotalEnergies also bringing its expertise to optimize the oil and gas production of the Ratawi field, by building and operating new capacities,
- the construction of a large-scale seawater treatment unit to increase water injection capacities in the fields of southern Iraq and to reduce water withdrawals from rivers and aquifers as the country is facing drought. This water injection is required to ensure that pressure is maintained in several fields and as such will help optimizing production of natural resources in the Basra region,
- the construction and operation of a photovoltaic power plant with a capacity of 1 GW to supply electricity to the grid in the Basra region.

Discussions with the Iraqi authorities are ongoing regarding the implementation of these agreements.

In **Yemen**, following the sale in November 2022 of its stake in onshore Block 5 (Marib Basin, Jannah license, 15%), TotalEnergies now holds stakes in only four onshore exploration licenses, for which a situation of force majeure has been declared.

In **Iran**, TotalEnergies ceased all operational activities prior to the re-imposition of US secondary sanctions on the oil industry with effect from November 5, 2018.

In **Syria**, TotalEnergies discontinued its activities connected with oil and gas production since December 2011.

In **Cyprus**, TotalEnergies is present in offshore exploration Blocks 7 (50%, operator), 11 (50%, operator), 2 (20%), 3 (30%), 6 (50%), 8 (40%) and 9 (20%). Two exploration wells, Cronos and Zeus, drilled on Block 6 in 2022, resulted in two discoveries of natural gas.

In **Lebanon**, TotalEnergies operates since February 2018 two offshore explorations Blocks: 4 and 9 (35%). A first exploration well was drilled on Block 4 in 2020 and declared dry. The drilling of an exploration well in 2023 on Block 9 is under preparation.

In **Egypt**, TotalEnergies owns a 25% interest in the North El-Hammad offshore block, in which is located the Bashrush offshore field also straddling the Baltim Block. According to a unitization agreement, signed in 2022, the Company has access to gas production since June 2022. In addition, TotalEnergies is operator of Block 3 in offshore exploration (35%).

## 2.3 Upstream oil and gas activities

TotalEnergies' Upstream oil and gas activities include the oil and gas exploration and production activities of the Exploration & Production and the Integrated Gas, Renewables & Power (iGRP) segments. They are conducted in close to 50 countries.

**Main indicators**

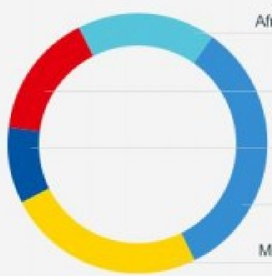
| | | | | |
|---|---|---|---|---|
| **2.8 Mboe/d** Hydrocarbons produced in 2022 | **10.2 Bboe** Proved reserves of hydrocarbons as of December 31, 2022[(1)] | **5.5 $/boe** Production costs (ASC932) in 2022[(2)] | **19 kg/boe** Intensity of GHG emissions of Upstream oil & gas Activities[(3)] based on equity share in 2022 | **17 kg/boe** Intensity of GHG emissions of operated Upstream oil & gas activities in 2022 |

**Production[(4)]**

| Hydrocarbon production | 2022 | 2021 | 2020 |
|---|---|---|---|
| Combined production *(kboe/d)* | 2,765 | 2,819 | 2,871 |
| Oil (including bitumen) *(kb/d)* | 1,307 | 1,274 | 1,298 |
| Gas (including Condensates and associated NGL) *(kboe/d)* | 1,458 | 1,545 | 1,573 |

| Hydrocarbon production | 2022 | 2021 | 2020 |
|---|---|---|---|
| Combined production *(kboe/d)* | 2,765 | 2,819 | 2,871 |
| Liquids *(kb/d)* | 1,519 | 1,500 | 1,543 |
| Gas *(Mcf/d)* | 6,759 | 7,203 | 7,246 |

**Hydrocarbon production by geographical zone** *(kboe/d)*




Hydrocarbon production was 2,765 thousand barrels of oil equivalent per day (kboe/d) in 2022, down 2% year-on-year, due to the following:

- +3% due to the start-up and ramp-up of projects, notably CLOV Phase 2 and Zinia Phase 2 in Angola, Mero 1 in Brazil and Ikike in Nigeria,
- +2% due to the increase in production quotas in OPEC+ countries,
- -3% portfolio effect, notably related to the end of the operated licenses for Qatargas 1 in Qatar and Bongkot North in Thailand, as well as the effective withdrawal from Myanmar, the exit from Termokarstovoye and Kharyaga in Russia, partially offset by the entry into the Sépia and Atapu producing fields in Brazil,
- -1% due to security-related production cuts in Libya and Nigeria,
- -1% due to price effect,
- -2% due to the natural field decline.

(1) Based on a Brent price of $101.24/b (reference price in 2022), according to the rules established by the Securities and Exchange Commission (refer to point 2.3.1 of this chapter).
(2) Production costs for the consolidated subsidiaries, calculated in accordance with ASC 932 standards, excluding special items (refer to point 9.1.5 of chapter 9).
(3) Excluding LNG assets. The GHG emissions intensity of Upstream oil & gas activities is reported on the asset scope, depending on the share of TotalEnergies stake in each asset, whether or not it is operated by the Company.
(4) TotalEnergies production = EP production + iGRP production.

**Technical costs**[(a)]

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Production costs *($/bep)* | 5.5 | 5.3 | 5.1 |
| Exploration costs *($/bep)* | 0.7 | 0.9 | 1.0 |
| DD&A *($/bep)* | 11.1 | 11.5 | 11.9 |
| Technical costs *($/bep)* | 17.3 | 17.7 | 18.0 |

(a) Technical costs for the consolidated subsidiaries, calculated in accordance with ASC 932[(1)] standards, excluding special items (refer to point 9.1.5 of chapter 9).

Production costs of the consolidated subsidiaries, calculated in accordance with ASC 932 standards[(1)], were $5.5/boe in 2022, compared with $5.3/boe in 2021.

**Liquids and gas sale price**

| Price realizations[(a)] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Average liquids sales price *($/b)* | 91.3 | 65.0 | 37.0 |
| Average gas sales price *($/Mbtu)* | 13.15 | 6.60 | 2.96 |

(a) Consolidated subsidiaries.

**Proved reserves**

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon reserves *(Mboe)* | 10,190 | 12,062 | 12,328 |
| Oil (including bitumen) *(Mb)* | 5,183 | 5,050 | 5,003 |
| Gas (including Condensates and associated NGL) *(Mboe)* | 5,007 | 7,012 | 7,325 |

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon reserves *(Mboe)* | 10,190 | 12,062 | 12,328 |
| Liquids *(Mb)* | 5,716 | 5,843 | 5,804 |
| Gas *(Bcf)* | 24,093 | 33,450 | 35,220 |

**Hydrocarbon proved reserves by geographical zone** *(in Mboe)*


Proved reserves of hydrocarbons established under the SEC rules (Brent at $101.24/b in 2022) were 10,190 Mboe as of December 31, 2022. The proved reserve replacement ratio[(2)], based on SEC rules (Brent at $101.24/b in 2022), was -86% in 2022 and +19% over three years. Excluding Novatek, the proved reserves replacement ratios are +85% in 2022 and +79% over three years.

## 2.3.1 Oil and gas reserves

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the United States Securities & Exchange Commission (SEC) Rule 4-10 of Regulation S-X as amended by the SEC Modernization of Oil and Gas Reporting release issued on December 31, 2008. Proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is economically producible under existing regulatory, economic and operating conditions.

TotalEnergies' oil and gas reserves are consolidated annually, taking into account among other factors, levels of production, field reassessments, additional reserves from discoveries and extensions, disposals and acquisitions of reserves and other economic factors.

(1) FASB Accounting Standards Codification 932, Extractive industries – Oil and Gas.
(2) Variation of reserves, excluding productions: (revisions + discoveries & extensions + acquisitions - disposals)/productions for the period.

Unless otherwise indicated, any reference to TotalEnergies' proved reserves, proved developed reserves, proved undeveloped reserves and production reflects the Company's entire share of such reserves or such production. TotalEnergies' worldwide proved reserves include the proved reserves of its consolidated entities as well as its proportionate share of the proved reserves of equity affiliates. The reserves estimation process involves making subjective judgments. Consequently, estimates of reserves are not exact measurements and are subject to revision under well-established control procedures.

The reserves booking process requires, among other actions:

- that an internal peer review of technical evaluations is carried out to ensure that the SEC definitions and guidance are followed, and
- that management makes the necessary funding commitments to their development prior to booking.

For further information concerning the reserves and their evaluation process, refer to points 9.1 and 9.2 of chapter 9.

### PROVED RESERVES FOR 2022, 2021 AND 2020

In accordance with the amended Rule 4-10 of SEC Regulation S-X, proved reserves as of December 31 are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The average reference prices for Brent crude for 2022, 2021 and 2020 were, respectively, \$101.24/b, \$69.23/b and \$41.32/b.

As of December 31, 2022, TotalEnergies' combined proved reserves of oil and gas were 10,190 Mboe (69% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 56% of these reserves and natural gas 44%. These reserves were located in Africa (mainly in Angola, Mozambique, Nigeria, Republic of Congo and Uganda), the Americas (mainly in Argentina, Brazil, Canada, and the United States), Asia-Pacific (mainly in Australia and Kazakhstan), Europe (mainly in Norway, the United Kingdom and in Russia) and the Middle East and North Africa (mainly in Algeria, Libya, Oman, Qatar, United Arab Emirates, and Yemen).

Natural gas and related products (condensates and natural gas liquids) represent approximately 49% of these reserves, and crude oil and bitumen 51%.

Excluding Novatek, discoveries of new fields and extensions of existing fields added 708 Mboe to TotalEnergies' proved reserves during the three years 2020, 2021 and 2022 (before deducting production and sales of reserves and without adding any reserves acquired during this period). The revisions over the same period are +1,292 Mboe, mainly due to fields performance, to Arctic LNG2 project *debooking* and to the net impact of the changes in hydrocarbon prices in 2020 (decrease), in 2021 (increase) and in 2022 (increase).

As of December 31, 2022, TotalEnergies' combined proved reserves of oil and gas stood at 10,190 Mboe (of which 6,990 Mboe were proved developed reserves) compared to 10,320 Mboe excluding Novatek (of which 6,891 Mboe were proved developed reserves) as of December 31, 2021.

### RESERVE SENSITIVITY TO OIL AND GAS PRICES

Changes in the price used as a reference for the proved reserves estimation result in non-proportionate inverse changes in proved reserves associated with production sharing and risked service contracts (which together represent approximately 27% of TotalEnergies' reserves as of December 31, 2022). Under such contracts, TotalEnergies is entitled to a portion of the production, the sale of which is meant to cover expenses incurred by TotalEnergies. The more the oil prices decrease, the more the number of barrels necessary to cover the same amount of expenses. Moreover, the number of barrels economically producible under these contracts may vary according to criteria such as cumulative production, the rate of return on investment or the income-cumulative expenses ratio.

This increase in reserves is partly offset by a reduction of the duration over which fields are economically producible. However, the effect of a reduction in the duration of production is usually inferior to the impact of the drop in prices in production sharing contracts or risked service contracts and consequently lower prices usually lead to an increase in TotalEnergies' reserves, and vice versa. In Canada, a decrease in the reference price per barrel leads to a decrease in the level of royalties and, therefore, an increase of the reserves.

Finally, for any type of contract, a significant decrease in the reference price of petroleum products that negatively impacts projects' profitability may lead to a reduction in proved reserves, and vice versa.

## 2.3.2 Exploration

TotalEnergies evaluates exploration opportunities based on a variety of geological, technical, political, economic (including tax and contractual terms), environmental and societal factors.

In line with the Company's strategy, TotalEnergies has increased the selectivity of its exploration investments with a greater focus on oil prospects with low technical cost, low GHG emission and short timeline to production, and on gas targets, in areas where they can constitute the feedstock of existing LNG infrastructures and future projects. In addition to those criteria, the Company is ensuring to balance its exploration investments between mature areas (35%; with relatively low level of geological risk, situated nearby existing producing fields and infrastructures), emerging provinces (50%; in under-explored areas where the presence of hydrocarbons is already proven), and in frontier basins (15%; where the highest resource potential exists).

This has led to numerous material discoveries in 2020 notably in Suriname (oil and gas and condensate found in Maka Central, Sapakara West, Kwaskwasi on Block 58, 50%), South Africa (gas and condensate found in Luiperd, 45%), UK (Isabella oil and gas discovery on license P1820, 30%), and Egypt (Bashrush gas discovery in North El Hammad, 25%). Additional discoveries were made in 2021, notably in Suriname (with the Sapakara South-1 discovery on Block 58), in the United Arab Emirates (DE-09 well in Ruwais Block 1 unconventional gas license, 40%), and in Norway (Tyrihans Nord Ile in license 6407/1, 23%).

The Company's exploration expenditure in 2022 was maintained at \$0.8 billion (\$0.8 billion in 2021, compared to \$1.0 billion in 2020). This has resulted in additional exploration and appraisal success notably a significant light oil discovery made in Namibia (Venus-1 located on Block 2913B, 40%), in Suriname (Krabdagu-1 exploration well and Sapakara South-2 appraisal well, both on Block 58), in Brazil (with the oil discovery made on the Pedunculo well located to the northwest of the Sépia oil field, 28%), in Cyprus (with the significant gas discovery on the Cronos-1 exploration well and on the exploration well Zeus-1, both located on Block 6, 50%) and in Norway (G-Sentral North in license 104 30/9, 15%).

### 2.3.3 Hydrocarbon production

The average daily production of liquids and natural gas was 2,765 kboe/d in 2022, compared to 2,819 kboe in 2021 and 2,871 kboe/d in 2020.

Gas and associated products (condensates and natural gas liquids) represented approximately 53% of TotalEnergies' overall hydrocarbon production in 2022, compared to 55% in 2021 and 55% in 2020. Crude oil and bitumen represented 47% in 2022, compared to 45% in 2021 and in 2020.

The tables on the following pages set forth TotalEnergies' annual and average daily production of liquids and natural gas by geographic zone and for each of the last three fiscal years.

Consistent with industry practice, TotalEnergies often holds a percentage interest in its fields with the balance being held by joint venture partners (which may include other international oil companies, state-owned oil companies or government entities). TotalEnergies entities may frequently act as an operator (the party responsible for technical production) on the acreage in which it holds an interest. For further information, refer to the table on producing assets by geographical zone below.

In 2022, as in 2021 and 2020, the Trading & Shipping unit of the Refining & Chemicals segment marketed substantially all of TotalEnergies' liquids production (refer to the table regarding Trading & Shipping's crude oil sales and supply and petroleum products sales in Section 2.4.2.1 of this chapter).

## PRODUCTION BY GEOGRAPHICAL ZONE

The following table sets forth TotalEnergies' annual liquids and natural gas production by geographical zone.

| | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Liquids Mb[(a)] | Natural gas Bcf[(b)(c)] | Total Mboe | Liquids Mb[(a)] | Natural gas Bcf[(b)(c)] | Total Mboe | Liquids Mb[(a)] | Natural gas Bcf[(b)(c)] | Total Mboe |
| **Africa (excl. North Africa)** | **131** | **213** | **173** | **145** | **248** | **194** | **179** | **262** | **231** |
| Angola | 56 | 44 | 65 | 55 | 47 | 64 | 68 | 53 | 78 |
| Republic of the Congo | 26 | 9 | 27 | 32 | 11 | 34 | 41 | 11 | 43 |
| Gabon | 6 | 2 | 6 | 8 | 2 | 9 | 9 | 2 | 10 |
| Nigeria | 43 | 158 | 75 | 50 | 188 | 87 | 61 | 196 | 100 |
| **Americas** | **87** | **383** | **155** | **65** | **396** | **136** | **58** | **401** | **129** |
| Argentina | 2 | 160 | 31 | 2 | 151 | 30 | 3 | 156 | 31 |
| Bolivia | 2 | 81 | 16 | 2 | 87 | 18 | 2 | 81 | 16 |
| Brazil | 37 | 4 | 38 | 18 | 1 | 18 | 13 | 1 | 13 |
| Canada | 37 | – | 37 | 33 | – | 33 | 29 | – | 29 |
| United States | 9 | 127 | 31 | 9 | 137 | 33 | 11 | 148 | 37 |
| Venezuela | – | 11 | 2 | 1 | 20 | 4 | <1 | 15 | 3 |
| **Asia-Pacific** | **33** | **350** | **96** | **40** | **418** | **113** | **39** | **410** | **111** |
| Australia | 11 | 163 | 41 | 11 | 167 | 42 | 12 | 168 | 43 |
| Brunei | <1 | 16 | 4 | 1 | 18 | 4 | 1 | 22 | 5 |
| China | <1 | 54 | 10 | <1 | 47 | 9 | <1 | 46 | 9 |
| Indonesia | – | 3 | 1 | <1 | 4 | 1 | <1 | 4 | 1 |
| Kazakhstan | 20 | 18 | 23 | 25 | 26 | 30 | 23 | 25 | 28 |
| Myanmar | – | 23 | 3 | – | 46 | 6 | – | 46 | 6 |
| Thailand | 2 | 73 | 14 | 3 | 110 | 21 | 3 | 99 | 19 |
| **Europe** | **102** | **1,251** | **335** | **109** | **1,260** | **343** | **116** | **1,273** | **352** |
| Denmark | 9 | 19 | 12 | 9 | 19 | 12 | 9 | 20 | 13 |
| Italy | 5 | 1 | 6 | 7 | 1 | 7 | 6 | 1 | 6 |
| Norway | 45 | 187 | 80 | 49 | 168 | 80 | 47 | 172 | 79 |
| Netherlands | <1 | 25 | 4 | <1 | 27 | 5 | <1 | 31 | 5 |
| United Kingdom | 19 | 229 | 62 | 17 | 217 | 58 | 26 | 260 | 74 |
| Russia | 24 | 790 | 171 | 27 | 828 | 181 | 28 | 789 | 175 |
| **Middle East and North Africa** | **201** | **270** | **250** | **188** | **306** | **243** | **173** | **306** | **228** |
| Algeria | 11 | 62 | 22 | 10 | 48 | 19 | 9 | 40 | 16 |
| Egypt | <1 | 7 | 1 | - | - | - | - | - | - |
| United Arab Emirates | 114 | 13 | 116 | 99 | 16 | 102 | 95 | 17 | 99 |
| Iraq | 4 | 1 | 4 | 5 | 1 | 5 | 9 | 1 | 9 |
| Libya | 26 | 11 | 29 | 29 | 8 | 30 | 15 | 4 | 16 |
| Oman | 10 | 27 | 15 | 9 | 26 | 14 | 9 | 28 | 14 |
| Qatar | 36 | 149 | 63 | 36 | 207 | 73 | 36 | 216 | 74 |
| Yemen | <1 | - | <1 | - | - | - | - | - | - |
| **TOTAL PRODUCTION** | **554** | **2,467** | **1,009** | **547** | **2,628** | **1,029** | **565** | **2,652** | **1,051** |
| **INCLUDING SHARE OF EQUITY AFFILIATES** | **75** | **942** | **250** | **75** | **1,037** | **267** | **74** | **1,006** | **260** |
| Angola | 2 | 25 | 6 | 1 | 29 | 7 | 2 | 35 | 8 |
| United Arab Emirates | 9 | 12 | 12 | 9 | 14 | 11 | 8 | 13 | 11 |
| Oman | 10 | 27 | 15 | 9 | 26 | 14 | 9 | 29 | 14 |
| Qatar | 31 | 88 | 47 | 29 | 140 | 54 | 29 | 141 | 54 |
| Russia | 23 | 790 | 170 | 26 | 828 | 180 | 26 | 788 | 173 |
| Venezuela | – | – | – | 1 | <1 | 1 | <1 | <1 | <1 |

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas (179 Bcf in 2022, 179 Bcf in 2021 and 183 Bcf in 2020).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil = 5,422 cf of gas in 2022 (5,458 cf of gas in 2021 and 5,453 cf of gas in 2020).

The following table sets forth TotalEnergies' average daily liquids and natural gas production by geographical zone.

| | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Liquids kb/d[(a)] | Natural gas Mcf/d[(b)(c)] | Total kboe/d | Liquids kb/d[(a)] | Natural gas Mcf/d[(b)(c)] | Total kboe/d | Liquids kb/d[(a)] | Natural gas Mcf/d[(b)(c)] | Total kboe/d |
| **Africa (excluding North Africa)** | **358** | **584** | **474** | **398** | **681** | **532** | **488** | **717** | **629** |
| Angola | 155 | 120 | 178 | 150 | 128 | 175 | 184 | 146 | 212 |
| Republic of the Congo | 70 | 26 | 75 | 88 | 32 | 94 | 111 | 29 | 117 |
| Gabon | 16 | 5 | 17 | 23 | 4 | 24 | 26 | 7 | 27 |
| Nigeria | 117 | 433 | 204 | 137 | 517 | 239 | 167 | 535 | 273 |
| **Americas** | **238** | **1,048** | **425** | **179** | **1,086** | **372** | **158** | **1,095** | **353** |
| Argentina | 6 | 438 | 85 | 7 | 413 | 81 | 7 | 427 | 84 |
| Bolivia | 5 | 223 | 45 | 6 | 238 | 49 | 6 | 220 | 45 |
| Brazil | 102 | 10 | 104 | 48 | 3 | 49 | 34 | 4 | 35 |
| Canada | 101 | – | 101 | 91 | – | 91 | 81 | – | 81 |
| United States | 24 | 347 | 85 | 25 | 377 | 92 | 29 | 404 | 101 |
| Venezuela | – | 30 | 5 | 2 | 55 | 10 | 1 | 40 | 7 |
| **Asia-Pacific** | **91** | **960** | **262** | **107** | **1,145** | **307** | **105** | **1,121** | **302** |
| Australia | 30 | 447 | 113 | 31 | 459 | 116 | 33 | 459 | 118 |
| Brunei | 1 | 45 | 10 | 1 | 50 | 11 | 3 | 61 | 15 |
| China | <1 | 147 | 27 | <1 | 129 | 24 | <1 | 126 | 23 |
| Indonesia | – | 8 | 1 | <1 | 11 | 2 | <1 | 10 | 2 |
| Kazakhstan | 54 | 49 | 64 | 67 | 71 | 81 | 62 | 69 | 76 |
| Myanmar | – | 64 | 8 | – | 125 | 16 | – | 126 | 16 |
| Thailand | 6 | 200 | 39 | 8 | 300 | 57 | 7 | 270 | 52 |
| Europe | 280 | 3,427 | 918 | 300 | 3,453 | 941 | 318 | 3,478 | 963 |
| Denmark | 24 | 51 | 34 | 24 | 52 | 34 | 26 | 54 | 36 |
| Italy | 15 | 2 | 15 | 18 | 3 | 19 | 15 | 2 | 16 |
| Norway | 123 | 514 | 218 | 135 | 462 | 220 | 130 | 470 | 217 |
| Netherlands | <1 | 69 | 12 | <1 | 73 | 13 | <1 | 87 | 15 |
| United Kingdom | 53 | 626 | 171 | 48 | 594 | 159 | 70 | 710 | 201 |
| Russia | 65 | 2,165 | 468 | 75 | 2,269 | 496 | 77 | 2,155 | 478 |
| **Middle East and North Africa** | **552** | **740** | **686** | **516** | **838** | **667** | **474** | **835** | **624** |
| Algeria | 31 | 169 | 61 | 28 | 132 | 51 | 26 | 108 | 45 |
| Egypt | <1 | 19 | 3 | - | - | - | - | - | - |
| United Arab Emirates | 311 | 35 | 318 | 272 | 42 | 280 | 261 | 47 | 270 |
| Iraq | 11 | 4 | 12 | 13 | 3 | 14 | 23 | 3 | 24 |
| Libya | 73 | 32 | 79 | 80 | 23 | 84 | 41 | 10 | 43 |
| Oman | 26 | 74 | 40 | 25 | 72 | 39 | 25 | 78 | 39 |
| Qatar | 100 | 407 | 173 | 98 | 566 | 199 | 98 | 589 | 203 |
| Yemen | <1 | - | <1 | - | - | - | - | - | - |
| **TOTAL PRODUCTION** | **1,519** | **6,759** | **2,765** | **1,500** | **7,203** | **2,819** | **1,543** | **7,246** | **2,871** |
| **INCLUDING SHARE OF EQUITY AFFILIATES** | **203** | **2,581** | **682** | **206** | **2,842** | **732** | **202** | **2,748** | **712** |
| Angola | 4 | 69 | 17 | 4 | 78 | 19 | 5 | 94 | 23 |
| United Arab Emirates | 25 | 34 | 31 | 24 | 40 | 31 | 22 | 36 | 29 |
| Oman | 26 | 74 | 40 | 25 | 72 | 39 | 24 | 78 | 38 |
| Qatar | 84 | 240 | 128 | 80 | 385 | 149 | 78 | 386 | 148 |
| Russia | 64 | 2,164 | 466 | 71 | 2,267 | 492 | 72 | 2,154 | 473 |
| Venezuela | – | – | – | 2 | <1 | 2 | 1 | <1 | 1 |

(a) Liquids include crude oil, bitumen, condensates, and natural gas liquids (NGL).
(b) Including fuel gas (490 Mcf/d in 2022, 490 Mcf/d in 2021 and 500 Mcf/d in 2020).
(c) Gas conversion ratio: 1 boe = 1 b of crude oil = 5,422 cf of gas in 2022, 5,458 cf of gas in 2021 and 5,453 cf of gas in 2020).

## PRODUCING ASSETS BY GEOGRAPHICAL ZONE

The table below sets forth, as of December 31, 2022[1] and by geographical zone, TotalEnergies' producing assets, the year in which TotalEnergies' activities started in the country, the interest held in the asset (TotalEnergies' share in %) and, where appropriate, whether TotalEnergies operates the asset.

| Africa (excluding North Africa) | Exploration & Production segment | iGRP segment |
|---|---|---|
| **Angola** (1953) | **Operated:** Girassol, Dalia, Pazflor, CLOV (Block 17) (38.00%), Kaombo (Block 32) (30.00%) | |
| | **Non-operated:** Cabinda Block 0 (10.00%) | **Non-operated:** Angola LNG (13.60%) |
| **Gabon** (1928) | **Operated:** Baudroie Marine G5-143 (90,00%), Pointe Clairette Cap Lopez G6-5 (100%), Grand Anguille Marine G6-16 (100,00%), N'Tchengué G6-9 (100,00%), N'Tchengué Océan G6-14 (100,00%), Port Gentil Océan G6-15 (100,00%), Torpille G6-17 (100,00%) | |
| **Nigeria** (1962) | **Operated:** OML 99 Amenam-Kpono (30.40%), OML 99 Ikike (40.00%), OML 100 (40.00%), OML 102 (40.00%), OML 130 (24.00%) | **Operated:** OML 58 (40.00%) |
| | **Non-operated:** Shell Petroleum Development Company (SPDC) (10.00%), OML 118 – Bonga (12.50%), OML 138 (20.00%) | **Non-operated:** Nigeria LNG (15.00%) |
| **Republic of the Congo** (1968) | **Operated:** Moho Bilondo (53.50%), Moho Nord (53.50%), Nkossa (53.50%), Nsoko (53.50%), Sendji (55.25%), Yanga (55.25%) | |
| | **Non-operated:** Lianzi (26.75%) | |

| Americas | Exploration & Production segment | iGRP segment |
|---|---|---|
| **Argentina** (1978) | **Operated:** Aguada Pichana Este – Mulichinco (27.27%), Aguada Pichana Este – Vaca Muerta (41.00%), Aguada San Roque (24.71%), Rincon La Ceniza (45.00%), La Escalonada (45,00%), Aries (37.50%), Cañadon Alfa Complex (37.50%), Carina (37.50%), Hidra (37.50%), Kaus (37.50%), Vega Pleyade (37.50%) | |
| | **Non-operated:** Aguada Pichana Oeste (25.00%), Aguada de Castro (25.00%) | |
| **Bolivia** (1995) | **Operated:** Incahuasi (50.00%) | |
| | **Non-operated:** San Alberto (15.00%), San Antonio (15.00%), Itaú (41.00%) | |
| **Brazil** (1975) | **Operated:** Lapa (45.00%) | |
| | **Non-operated:** Libra (20.00%), Iara (22.50%), Atapu ToR Surplus (22.50%), Sepia ToR Surplus (28.00%) | |
| **Canada** (1999) | **Non-operated:** Surmont (50.00%), Fort Hills (24.58%) | |
| **United States** (1957) | **Non-operated:** Tahiti (17.00%), Jack (25.00%) | **Operated:** several assets in the Barnett basin (95% on average) |

| Asia-Pacific | Exploration & Production segment | iGRP segment |
|---|---|---|
| **Australia** (2006) | | **Not operated:** several assets in the GLNG UJV (27.50%)[a], Ichthys (26.00%) |
| **Brunei** (1986) | **Operated:** Maharaja Lela Jamalulalam (37.50%) | |
| **China** (2006) | **Non-operated:** South Sulige (49.00%) | |
| **Indonesia** (1968) | **Non-operated:** Block Sebuku (15.00%) | |
| **Kazakhstan** (1992) | **Operated:** Dunga (60.00%) | |
| | **Non-operated:** Kashagan (16.81%) | |

(a) TotalEnergies' interest in the unincorporated joint venture.

(1) TotalEnergies' interest in the local entity is approximately 100% in all cases except for TotalEnergies EP Gabon (58.28%), TotalEnergies EP Congo (85.00%) and certain entities in Abu Dhabi and Oman (refer to notes a through e below).

| Europe | Exploration & Production segment | iGRP segment |
|---|---|---|
| **Denmark** (2018) | **Operated:** Danish Underground Consortium (DUC) zone (43.20%), comprising the Dan/Halfdan, Gorm and Tyra fields, and all their satellites | |
| **Italy** (1960) | **Operated:** Tempa Rossa (50.00%) | |
| **Norway** (1965) | **Operated:** Skirne (40.00%), Atla (40.00%) | |
| | **Non-operated:** Johan Sverdrup (8.44%), Åsgard (7.68%), Ekofisk (39.90%), Eldfisk (39.90%), Embla (39.90%), Tor (48.20%), Flyndre (6.26%), Islay (5.51%)[b], Kristin (6.00%), Kvitebjørn (5.00%), Oseberg (14.70%), Oseberg East (14.70%), Oseberg South (14.70%), Troll (3.69%), Tune (10.00%), Tyrihans (23.15%) | **Non-operated:** Snøhvit (18.40%) |
| **Netherlands** (1964) | **Operated:** F6a oil (65.68%), J3a (30.00%), K1a (40.10%), K3b (56.16%), K4a (50.00%), K4b/K5a (36.31%), K5b (50.00%), K6 (56.16%), L1a (60.00%), L1d (60.00%), L1e (55.66%), L1f (55.66%), L4a (55.66%) | |
| | **Non-operated:** E16a (16.92%), E17a/E17b (14.10%), J3b/J6 (25.00%), Q16a (6.49%) | |
| **United Kingdom** (1962) | **Operated:** Alwyn North (100.00%), Dunbar (100.00%), Ellon (100.00%), Forvie North (100.00%), Grant (100.00%), Jura (100.00%), Nuggets (100.00%), Islay (94.49%)[b], Elgin-Franklin (46.17%), West Franklin (46.17%), Glenelg (58.73%), Culzean (49.99%), Laggan Tormore, Edradour and Glenlivet (all 40.00%), Gryphon (86.50%), Maclure (38.19%), South Gryphon (89.88%), Tullich (100.00%), Ballindalloch (91.8%) | |
| | **Non-operated:** Bruce (1.00%), Markham unitized field (7.35%), Harding (30.00%) | |
| **Russia** (1991) | None<br>TotalEnergies no longer equity account for its 19.4% stake in PAO Novatek as of December 31, 2022 | **Non-operated:** Yamal LNG (20.02%)[c] |

(b) The Islay field extends partially into Norway. TotalEnergies EP UK holds a 94.49% interest and TotalEnergies EP Norge 5.51%.
(c) Direct TotalEnergies' interest of 20.02% in OAO Yamal LNG.

| Middle East and North Africa | Exploration & Production segment | iGRP segment |
|---|---|---|
| **Algeria** (1952) | **Non-operated:** TFT II (49,00%), Timimoun (37.75%), 404a & 208 (12.25%) | |
| **Egypt** (2010) | **Non-operated:** NEHO (25,00%) | |
| **United Arab Emirates** (1939) | **Non-operated:** ADNOC Onshore (10.00%), ADNOC Offshore: Umm Shaif/Nasr (20.00%), Lower Zakum (5.00%), ADNOC Gas Processing (15.00%) | **Non-operated:** ADNOC LNG (5.00%) |
| **Iraq** (1920) | **Non-operated:** Halfaya (22.50%), | |
| **Libya** (1959) | **Non-operated:** zones 15, 16 & 32 (37.50%)[d], zones 129 & 130 (15.00%)[d], zones 130 & 131 (12.00%)[d], zones 70 & 87 (37.50%)[d], Waha (20.41%) | |
| **Oman** (1937) | **Non operated:** various onshore fields (Block 6) (4.00%)[e] | **Non-operated:** Oman LNG (5.54%), Qalhat LNG (2.04% through Oman LNG) |
| **Qatar** (1936) | **Operated:** Al Khalij (40.00%) | |
| | **Non-operated:** North Field-Block NF Dolphin (24.50%), Al Shaheen (30.00%) | **Non-operated:** North Field-Qatargas 2 Train 5 (16.70%) |

(d) The interest in these assets is now reported according to the TotalEnergies interest in these assets, and no longer according to the interest in the foreign consortium like in previous fiscal years.
(e) TotalEnergies' indirect interest (4.00%) in the concession through its 10.00% stake in Private Oil Holdings Oman Ltd.

## 2.3.4 Delivery commitments

The majority of TotalEnergies' natural gas production is sold under long-term contracts. However, most of its North American and United Kingdom production, and part of its production from Norway, is sold in the spot market. The spot market trading of Russian LNG were halted at the end of 2022.

The long-term contracts under which TotalEnergies sells its natural gas usually provide for a price related to, among other factors, average crude oil and other petroleum product prices, as well as, in some cases, a cost-of-living index. Though the price of natural gas tends to fluctuate in line with crude oil prices, a slight delay may occur before changes in crude oil prices are reflected in long-term natural gas prices.

Some of TotalEnergies' long-term contracts, such as in Russia, Australia, Nigeria, Qatar and Bolivia, specify the delivery of quantities of natural gas that may or may not be fixed and determinable. Such delivery commitments vary substantially, both in duration and scope, from contract to contract throughout the world. For example, in some cases, contracts require delivery of natural gas on an as-needed basis, and, in other cases, contracts call for the delivery of varied amounts of natural gas over different periods of time. Nevertheless, TotalEnergies estimates the fixed and determinable quantity of gas to be delivered over the period 2023-2025 to be 3,028 Bcf. TotalEnergies expects to satisfy most of these obligations through the production of its proved reserves of natural gas and, if needed, additional sourcing from spot market purchases.

## 2.3.5 Contractual framework of Upstream oil and gas production activities

Licenses, permits and contracts governing the ownership of oil and gas interests by TotalEnergies' entities have terms that vary from country to country and are generally granted by or entered into with a government entity or a state-owned company or sometimes with private owners. These agreements usually take the form of concessions or production-sharing contracts.

In the framework of oil concession agreements, the oil company (or consortium) owns the assets and the facilities and is entitled to the entire production. In exchange, the operating risks, costs and investments are the oil company's or the consortium's responsibility and it agrees to remit to the relevant host country, usually the owner of the subsoil resources, a production-based royalty, income tax, and possibly other taxes that may apply under local tax legislation.

The production sharing contract (PSC) involves a more complex legal framework than the concession agreement. It defines the terms and conditions of production sharing and sets the rules governing the cooperation between the company (the contractor) or consortium (the contracting group) in possession of the license and the host country, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation. The contractor (or contractor group) undertakes the execution and financing, at its own risk, of all exploration, development or operational activities. In exchange, it is entitled to a portion of the production, known as "cost oil", the sale of which is intended to cover its incurred expenses (capital and operating costs). The balance of production, known as "profit oil", is then shared in varying proportions, between the contractor (or the contracting group), on the one hand, and the host country or state-owned company, on the other hand.

Today, concession agreements and PSCs can coexist, sometimes in the same country. Even though there are other contractual models, TotalEnergies' license portfolio is comprised mainly of concession agreements.

On most licenses, the partners and authorities of the host country, often assisted by international accounting firms, perform joint venture and PSC cost audits and ensure the observance of contractual obligations.

In some countries, TotalEnergies has also signed contracts called "risked service contracts", which are similar to production sharing contracts. However, the profit oil is replaced by a defined or determinable cash monetary remuneration, agreed by contract, which depends in particular on field performance parameters such as the amount of barrels produced.

Oil and gas exploration and production activities are subject to authorization granted by public authorities (licenses), which are granted for specific and limited periods of time and include an obligation to relinquish a large portion, or the entire portion in case of failure, of the area covered by the license at the end of the exploration period.

TotalEnergies pays taxes on income generated from its oil and gas production and sales activities under its concessions, PSCs and risked service contracts, as required by local regulations. In addition, depending on the country, TotalEnergies' production and sales activities may be subject to a number of other taxes, fees and withholdings, including special petroleum taxes and fees. The taxes imposed on oil and gas production and sales activities are generally substantially higher than those imposed on other industrial or commercial businesses.

## 2.3.6 Oil and gas acreage

| As of December 31 *(in thousands of acres)* | | 2022 Undeveloped acreage[a] | 2022 Developed acreage |
|---|---|---|---|
| Africa (excluding North Africa) | Gross | 81,599 | 883 |
| | Net | 42,598 | 202 |
| Americas | Gross | 14,830 | 741 |
| | Net | 6,077 | 328 |
| Asia-Pacific | Gross | 23,518 | 923 |
| | Net | 14,027 | 292 |
| Europe | Gross | 7,150 | 960 |
| | Net | 3,074 | 226 |
| Middle East and North Africa | Gross | 54,340 | 3,423 |
| | Net | 12,636 | 599 |
| **TOTAL** | **GROSS** | **181,437** | **6,930** |
| | **NET[b]** | **78,412** | **1,647** |

(a) Undeveloped acreage includes licenses and concessions.
(b) Net acreage equals the sum of TotalEnergies' equity interests in gross acreage.

## 2.3.7 Productive wells

| As of December 31 *(number of wells)* | | 2022 Gross productive wells | 2022 Net productive wells[a] |
|---|---|---|---|
| Africa (excluding North Africa) | Liquids | 1,288 | 351 |
| | Gas | 70 | 14 |
| Americas | Liquids | 327 | 124 |
| | Gas | 2,562 | 1,719 |
| Asia-Pacific | Liquids | 132 | 66 |
| | Gas | 3,728 | 1,172 |
| Europe | Liquids | 595 | 196 |
| | Gas | 439 | 119 |
| Middle East and North Africa | Liquids | 11,803 | 873 |
| | Gas | 189 | 65 |
| **TOTAL** | **LIQUIDS** | **14,145** | **1,610** |
| | **GAS** | **6,988** | **3,089** |

(a) Net productive wells corresponds to the sum of TotalEnergies' equity interests in gross productive wells.

## 2.3.8 Productive and dry wells drilled

| As of December 31 (number of wells) | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Net productive wells drilled (a)(b) | Net dry wells drilled (a)(c) | Total net wells drilled (a)(c) | Net productive wells drilled (a)(b) | Net dry wells drilled (a)(c) | Total net wells drilled (a)(c) | Net productive wells drilled (a)(b) | Net dry wells drilled (a)(c) | Total net wells drilled (a)(c) |
| **Exploration** | | | | | | | | | |
| Africa (excluding North Africa) | 0.4 | 0.9 | 1.3 | 1.1 | 0.8 | 1.9 | 0.4 | – | 0.4 |
| Americas | 1.4 | 1.1 | 2.5 | 2.0 | 1.8 | 3.8 | 2.6 | 0.5 | 3.1 |
| Asia-Pacific | 0.3 | – | 0.3 | – | – | – | – | 0.7 | 0.7 |
| Europe[e] | 0.2 | 0.1 | 0.3 | 0.2 | 1.2 | 1.4 | 0.3 | 0.5 | 0.8 |
| Russia | | | | – | – | – | – | – | – |
| Middle East and North Africa | 0.5 | 0.5 | 1.0 | 0.8 | – | 0.8 | 0.3 | 0.4 | 0.7 |
| **TOTAL** | **2.8** | **2.6** | **5.4** | **4.1** | **3.8** | **7.9** | **3.6** | **2.1** | **5.7** |
| **Development** | | | | | | | | | |
| Africa (excluding North Africa) | 6.9 | 0.1 | 7.0 | 4.8 | – | 4.8 | 8.0 | – | 8.0 |
| Americas[d] | 22.4 | – | 22.4 | 7.0 | – | 7.0 | 2.0 | – | 2.0 |
| Asia-Pacific | 130.8 | – | 130.8 | 127.3 | – | 127.3 | 114.9 | – | 114.9 |
| Europe[e] | 25.9 | – | 25.9 | 13.8 | – | 13.8 | 7.7 | – | 7.7 |
| Russia | | | | 28.7 | – | 28.7 | 21.6 | – | 21.6 |
| Middle East and North Africa | 55.4 | 0.7 | 56.1 | 54.6 | 0.2 | 54.8 | 56.4 | – | 56.4 |
| **TOTAL** | **241.4** | **0.8** | **242.2** | **243.9** | **0.2** | **244.1** | **214.0** | **–** | **214.0** |
| **TOTAL** | **244.2** | **3.4** | **247.6** | **248.0** | **4.0** | **252.0** | **217.6** | **2.1** | **219.7** |

(a) Net wells equal the sum of TotalEnergies' equity interests in gross wells.
(b) Includes certain exploratory wells that were abandoned, but which would have been capable of producing oil in sufficient quantities to justify completion.
(c) For information: service wells and stratigraphic wells are not reported in this table.
(d) The recompletion activities in Barnett are no longer reported. The 2021 (123.3) et 2020 (256.3) data were restated.
(e) As of January 1, 2022, the Europe lines include the Russia data.

## 2.3.9 Wells in the process of being drilled (including wells temporarily suspended)

| As of December 31 (number of wells) | 2022 | |
|---|---|---|
| | Gross | Net[a] |
| **Exploration** | | |
| Africa (excluding North Africa) | – | – |
| Americas | 2 | 0.7 |
| Asia-Pacific | – | – |
| Europe | 1 | 0.3 |
| Middle East and North Africa | 1 | 0.2 |
| **TOTAL** | **4** | **1,2** |
| **Other wells[b]** | | |
| Africa (excluding North Africa) | 91 | 16.2 |
| Americas | 42 | 18.1 |
| Asia-Pacific | 431 | 124.1 |
| Europe | 104 | 14.6 |
| Middle East and North Africa | 417 | 55.4 |
| **TOTAL** | **1,085** | **228.4** |
| **TOTAL** | **1,089** | **229.6** |

(a) Net wells equal the sum of TotalEnergies' equity interests in gross wells. Includes wells for which surface facilities permitting production have not yet been constructed. Such wells are also reported in the table "Number of net productive and dry wells drilled" above, for the year in which they were drilled.
(b) Other wells are development wells, service wells and stratigraphic wells.

## 2.3.10 Interests in pipelines

The table below shows the main interests held by TotalEnergies entities[1] in pipelines, as of December 31, 2022.

| Pipeline(s) | Origin | Destination | (%) Interest | Operator | Liquids | Gas |
|---|---|---|---|---|---|---|
| **Africa (excluding North Africa)** | | | | | | |
| **Nigeria** | | | | | | |
| O.U.R | Obite | Rumuji | 40.00 | X | | X |
| NOPL | Rumuji | Owaza | 40.00 | X | | X |
| **Americas** | | | | | | |
| **Argentina** | | | | | | |
| TGM | Aldea Brasilera (Entre Rios) | Paso de Los Libres (Argentina--Brazil border) | 32.68 | | | X |
| **Brazil** | | | | | | |
| TSB | Paso de Los Libres (Argentina--Brazil border) | Uruguayana (Brazil) | 25.00 | | | X |
| | Porto Alegre | Canoas | 25.00 | | | X |
| **Asia-Pacific** | | | | | | |
| **Australia** | | | | | | |
| GLNG | Fairview, Roma, Scotia, Arcadia | GLNG (Curtis Island) | 27.50 | | | X |
| **Europe** | | | | | | |
| **Azerbaijan** | | | | | | |
| BTC | Baku (Azerbaijan) | Ceyhan (Turkey, Mediterranean) | 5.00 | | X | |
| **Norway** | | | | | | |
| Frostpipe (inhibited) | Lille-Frigg, Froy | Oseberg | 36.25 | | X | |
| Heimdal to Brae Condensate Line | Heimdal | Brae | 16.76 | | X | |
| Kvitebjorn Pipeline | Kvitebjorn | Mongstad | 5.00 | | X | |
| Norpipe Oil | Ekofisk Treatment Center | Teesside (United Kingdom) | 34.93 | | X | |
| Oseberg Transport System | Oseberg, Brage and Veslefrikk | Sture | 12.98 | | X | |
| Troll Oil Pipeline I and II | Troll B and C | Vestprosess (Mongstad refinery) | 3.71 | | X | |
| **Netherlands** | | | | | | |
| WGT K13-Den Helder | K13A | Den Helder | 4.66 | | | X |
| WGT K13-Extension | Markham | K13 (via K4/K5) | 23.00 | | | X |
| **United Kingdom** | | | | | | |
| Alwyn Liquid Export Line | Alwyn North | Cormorant | 100.00 | X | X | |
| Bruce Liquid Export Line | Bruce | Forties (Unity) | 1.00 | | X | |
| Graben Area Export Line (GAEL) Northern Spur | ETAP | Forties (Unity) | 9.58 | | X | |
| Graben Area Export Line (GAEL) Southern Spur | Elgin-Franklin | ETAP | 32.09 | | X | |
| Ninian Pipeline System | Ninian | Sullom Voe | 16.36 | | X | |
| Shearwater Elgin Area Line (SEAL) | Elgin-Franklin, Shearwater | Bacton | 25.73 | | | X |
| SEAL to Interconnector Link (SILK) | Bacton | Interconnector | 54.66 | X | | X |
| **Middle East and North Africa** | | | | | | |
| **United Arab Emirates** | | | | | | |
| Dolphin | North Field (Qatar) | Taweelah-Fujairah-Al Ain (United Arab Emirates) | 24.50 | | | X |

All interest in the oil and gas pipelines included above are included in the Exploration & Production segment, excluding those in the assets situated in Australia, which belong to the iGRP segment.

(1) Excluding equity affiliates, except for the Dolphin pipeline.

# 2.4 Refining & Chemicals segment

The Refining & Chemicals segment includes the Refining & Chemicals activities described in section 2.4.1 and the Trading-Shipping activities described in section 2.4.2.

**Main indicators**

Among the world's **10** largest integrated producers[(1)]

**1.8 Mb/d** Refining capacity at year-end 2022

One of the **leading** traders of oil and refined products worldwide

**-0.3 Mt $CO_2e$** Decrease of the $CO_2$ emissions Scope 1+2 during year 2022

**$1.3 B** Organic investments[(2)] in 2022 for Refining & Chemicals activities

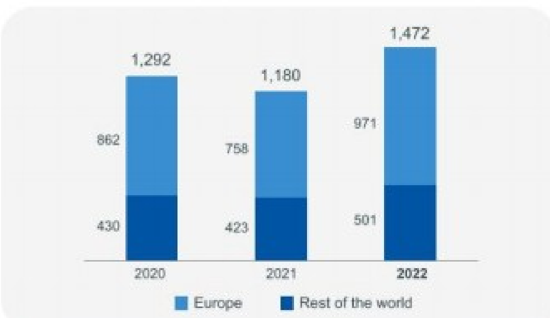
**Main objectives / ambitions**

**1.5 Mt/y** Production of SAF by 2030

**175 Kt/y** Bioplastics production capacity by 2025

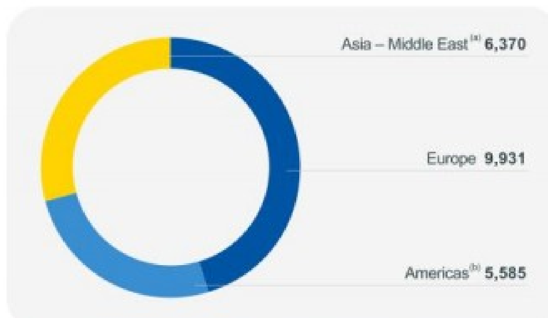
Ambition to produce **30%** of its polymers from recycled or renewable material by 2030

**Refinery throughput**[(a)] *(in kb/d)*



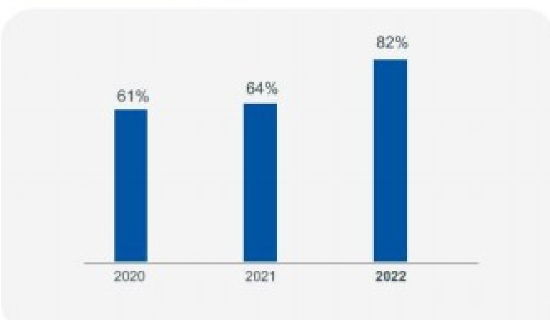

(a) Includes refineries in Africa that are reported in the Marketing & Services segment.

**Petrochemicals production capacity by geographical area** *(kt)*



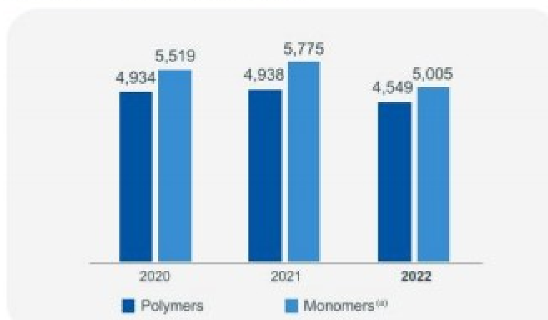

(a) Including interests in Qatar, 50% of Hanwha TotalEnergies Petrochemical Co. Limited and 37.5% of SATORP in Saudi Arabia.
(b) Including 50% of the joint venture between TotalEnergies and Borealis.

**Refining utilization rate**[(a)] *(in %)*




(a) Based on distillation capacity at the beginning of the year, excluding Grandpuits (shut down first quarter 2021) from 2021 and Lindsey refinery (divested) from second quarter 2021.

**Production of petrochemicals** *(in kt)*




(a) Olefins.

(1) Based on publicly available information, refining and petrochemical production capacities at year-end 2021.
(2) Organic investments = net investments, excluding acquisitions, divestments and other operations with non-controlling interests (refer to point 1.6.1 of chapter 1).

Refinery throughput was up 25% in 2022, due to the increase in the utilization rate of refineries.

Petrochemicals production was down 13% for monomers and 8% for polymers in 2022, after the very strong post-Covid increase observed in 2021.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

## 2.4.1 Refining & Chemicals

Refining & Chemicals' activities include refining, base petrochemicals (olefins and aromatics); polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins), including biopolymers and recycled polymers obtained from chemical or mechanical recycling, as well as the production of biofuels from the transformation of biomass and, since January 1, 2022, the production of specialty fluids, previously reported in the Marketing & Services segment. The Refining & Chemicals activities also include the processing of elastomers by Hutchinson.

The Refining & Chemicals strategy integrates the constant requirement for safety, a core value of TotalEnergies, and is embedded in the Company's climate ambition to achieve carbon neutrality (net zero emissions) by 2050 together with society. It does so through controlling the $CO_2$ emissions of its operations (Scope 1+2), developing low-carbon solutions, particularly in biomass, and adapting its activities in Europe in line with the net zero emission objective set by the European Union.

This strategy involves:

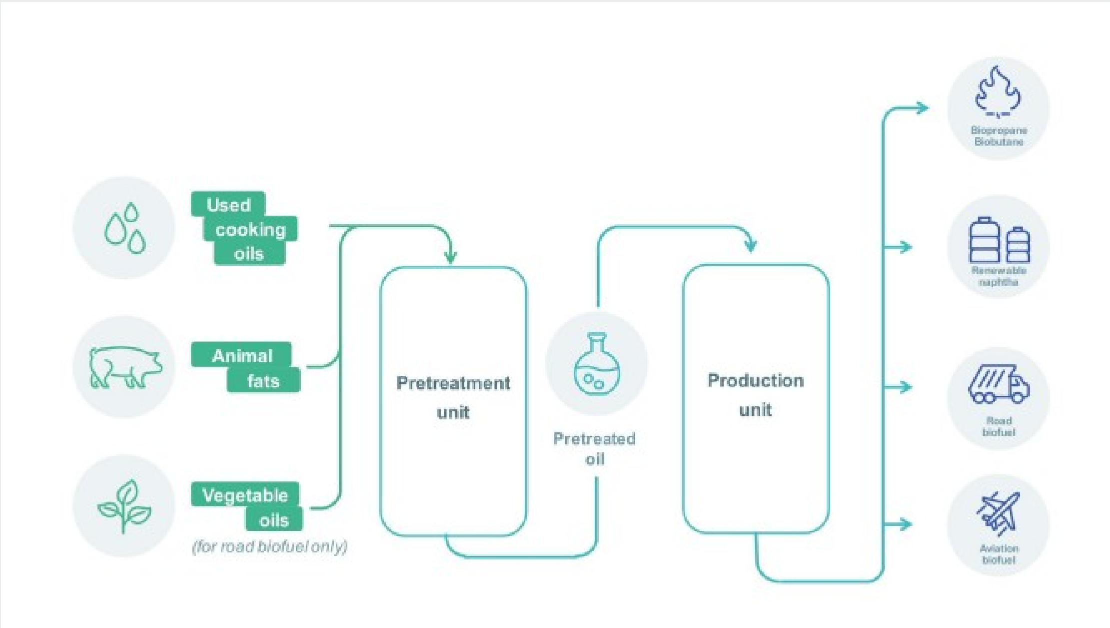
- continuously improving the competitiveness of refining and petrochemicals activities by making optimal use of production assets, concentrating investments on its large, integrated platforms and reducing $CO_2$ emissions linked to its operations,
- growing petrochemicals, mainly in the United States and the Middle East, by exploiting the proximity of cost-effective oil and gas resources in order to supply growing markets, particularly in Asia, and
- developing low carbon activities, on the one hand in biofuels (in particular Sustainable Aviation Fuel (SAF)), synthetic fuels produced from $CO_2$ and green hydrogen (e-fuels), biopolymers and plastic recycling solutions, and on the other hand in materials that help enhance the energy efficiency of TotalEnergies' customers, particularly in the automotive market.

**Biofuels**

Biofuels reduce $CO_2$ emissions by at least 50% compared to their equivalent fossil fuels[(1)]. In addition, demand for these products is supported by government policies aimed at achieving carbon neutrality (net zero emissions).

The growth of the biofuel market is driven by the renewable diesel segment, produced by hydrotreating vegetable oils or waste and residues such as animal fat and used cooking oil. This market is expected to grow by more than 10% per year[(2)], as renewable diesel can be incorporated into fossil diesel without any blending limitation and be certified as aviation fuel.

**Renewable diesel process**




The aviation sector has set itself the goal of achieving carbon neutrality by 2050[(3)]. Achieving this target is likely to involve the incorporation in fossil fuels of a growing portion of SAF, which is currently the most effective solution for reducing $CO_2$ emissions from air transport, in the absence of an industrial alternative to liquid fuel in the short to medium term.

The outlook for growth in demand for SAF is also supported by the various regulations. For example, in Europe, the ReFuelEU Aviation regulation, launched as part of the EU's "Fit for 55" legislative package, is expected to promote the development of SAFs within the Union with, among other things, the implementation of obligatory minimum incorporation mandate (2% in 2025, 5% in 2030, 32% in 2040 and 63% in 2050). In the US, the 2022 Inflation Reduction Act provides tax incentives for airlines that use fuels with lower greenhouse gas emissions.

TotalEnergies intends to become a leader in the production of renewable diesel, relying mainly on its existing refinery assets (conversion, co-processing and developments on existing platforms). In particular, the Company has set a production target of 1.5 Mt/y of SAF by 2030, corresponding to a market share of 10% of volumes produced. In December 2022, TotalEnergies and Air France-KLM have signed a Memorandum of Understanding (MoU) for the delivery of more than 1 Mcm or 800 kt of SAF by TotalEnergies to Air France-KLM Group airlines over the 10-year period from 2023.

In 2022, TotalEnergies produced more than 300 kt of biofuels and other chemical bio-components, mainly at its La Mède and Feyzin sites in France.

(1) According to the European RED (Renewable Energy Directive) I & II.
(2) TotalEnergies data.
(3) Source: IATA.

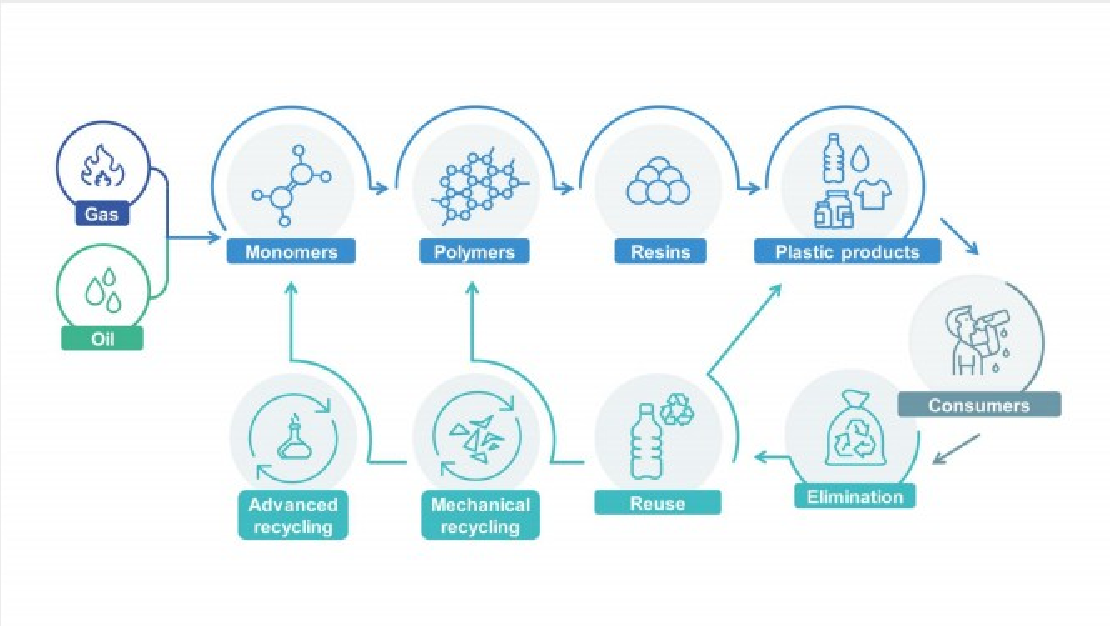
**Biopolymers and plastic recycling**

Biopolymers are produced either by replacing fossil feedstock in a steam cracking unit with biomass feedstock such as vegetable oils or hydrogenated residues, or directly by making low-carbon molecules such as polylactic acid (PLA) from starch or sugar.

Mechanical recycling, for which the technology is more mature than chemical recycling, requires highly processed feedstock and cannot be used for every application of plastic, particularly most of those involving contact with food. This technology is suited to the needs of markets such as automotive and construction.

Advanced recycling (also known as chemical recycling), on the other hand, makes it possible to process waste that cannot be recycled mechanically and to address other markets, such as those of plastics for food use ; it requires more capital-intensive technologies and is still at the stage of industrial development. The purpose of the chemical recycling process is to break down used polymer in order to return, in one or more stages, to a monomer, which is the raw material of any polymer.

**Plastic recycling process**




In order to support its customers in reducing their greenhouse gas emissions and addressing the end-of-life problem of plastics, TotalEnergies has resolutely committed to both the development of biomass conversion into polymers and to plastic recycling activities. It has set the ambition of producing 30% of its polymers from recycled or renewable materials by 2030. In 2022, TotalEnergies produced 50 kt of recycled or renewable polymers.

In addition to the development of low-carbon polymers, TotalEnergies is involved, as a founding member of the Alliance to End Plastic Waste, in an initiative to reduce the environmental impact of plastics. The Alliance brings together more than 90 member companies, project partners and supporters, who have committed $1 billion and aim to invest $1.5 billion by 2025, in implementing solutions to eliminate plastic waste in the environment, particularly in the oceans.

### 2.4.1.1 REFINING AND PETROCHEMICALS

TotalEnergies holds stakes in 16 refineries located in Europe, the United States, the Middle East, Asia and Africa, eight of which are operated by TotalEnergies companies including two biorefineries in France (La Mède, and Grandpuits, which is in the process of being converted). As of December 31, 2022, TotalEnergies' refining capacity was 1,792 kb/d, compared to 1,793 kb/d at year-end 2021 and 1,967 kb/d at year-end 2020. The refining capacity of the Refining & Chemicals segment totaled 1,785 kb/d at year-end 2022 (or 99% of TotalEnergies' total capacity[1]).

TotalEnergies' petrochemicals operations are located in Europe, the United States, Qatar, South Korea and Saudi Arabia. Being either adjacent to or connected by pipelines to TotalEnergies refineries, the vast majority of the petrochemical operations are integrated with its refining operations, thereby maximizing synergies.

As of December 31, 2022, TotalEnergies' global petrochemicals capacity (olefins, aromatics and polymers) was 21,885 kt, compared with 21,381 kt at year-end 2021 and 21,299 kt at year-end 2020. This capacity increase in 2022 is mainly due to the start-up of the ethane craker in Port Arthur (USA).

For the main sites of Refining & Chemicals at year-end 2022, please refer to paragraph 1.8.3 of chapter 1.

(1) The balance of the refining capacity is reported in the Marketing & Services segment.

## CRUDE OIL REFINING CAPACITY

The table below sets forth TotalEnergies' crude oil refining capacity[a]:

| As of December 31 *(kb/d)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Refineries operated by TotalEnergies companies** | **1,384** | **1,384** | **1,558** |
| **France** | | | |
| Normandy-Gonfreville (100%) | 253 | 253 | 253 |
| Donges (100%) | 219 | 219 | 219 |
| Feyzin (100%) | 109 | 109 | 109 |
| Grandpuits (100%) | – | – | 101 |
| **Rest of Europe** | | | |
| Antwerp (100%) | 338 | 338 | 338 |
| Leuna (100%) | 227 | 227 | 227 |
| Lindsey-Immingham (100%)[b] | – | – | 109 |
| **Noth America** | | | |
| Port Arthur refinery and condensate splitter (100%)[c] | 238 | 238 | 202 |
| **Other refineries in which TotalEnergies has interests[d]** | **408[e]** | **409** | **409** |
| **TOTAL** | **1,792** | **1,793** | **1,967** |

(a) Capacity data based on crude distillation unit stream-day capacities under normal operating conditions, less the average impact of shutdowns for regular repair and maintenance activities.
(b) Disposed of in 2021
(c) The increase in refining capacity between 2020 and 2021 resulted from the acquisition of BASF's 60% interest in the condensate splitter.
(d) TotalEnergies' share as of December 31, 2022, in the eight refineries in which it has interests ranging from 0,2% to 55% (one each in the Netherlands, South Korea, Qatar and Saudi Arabia and four in Africa).
(e) The decrease in refining capacity between 2021 and 2022 results from the reduction in the shareholding of TotalEnergies Marketing Sénégal SA in the Senegalese refinery SAR (Société Africaine de Raffinage) from 6.82% at December 31, 2021 to 0.18% at December 31, 2022.

## REFINERY AND BIOREFINERY PRODUCTION

The table below sets forth TotalEnergies' net share[a] of the refined quantities produced by TotalEnergies' refineries, by product category:

| *(kb/d)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Gasoline (excluding ETBE) | 259 | 228 | 252 |
| Aviation fuel (excluding SAF)[b] | 122 | 67 | 78 |
| Diesel and fuels (excluding renewable diesel) | 644 | 524 | 549 |
| Heavy fuels | 68 | 44 | 53 |
| Other products[c] | 326 | 265 | 270 |
| Renewable diesel (including SAF) and ETBE | 5 | 9 | 6 |
| **TOTAL** | **1 424** | **1,137** | **1,208** |

(a) For refineries not 100% owned by TotalEnergies, the production shown corresponds to TotalEnergies' equity share in the site's overall production.
(b) Jet fuel, kerosene and Avgas (aviation fuel specially designed for piston engined aircraft).
(c) Mainly refining bases, petcoke, naphta, refinery propylene and other petrochemical bases.

The difference with refinery throughput and the refined volumes is due to self-consumption of crude oil and losses during the refining process.

## UTILIZATION RATE

The table below sets forth the average utilization rates of TotalEnergies' refineries:

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| On crude and other feedstock[a][b] | 82% | 66% | 66% |
| On crude[a][c] | 82% | 64% | 61% |

(a) Including equity share of refineries in which TotalEnergies has an interest.
(b) Crude + crackers' feedstock/distillation capacity at the beginning of the year.
(c) Crude/distillation capacity at the beginning of the year.

## PETROCHEMICALS: BREAKDOWN OF MAIN PRODUCTION CAPACITIES

| As of December 31 (in kt) | 2022 | | | | 2021 | 2020 |
|---|---|---|---|---|---|---|
| | Europe | North America[(a)] | Asia and Middle East[(b)] | Worldwide | Worldwide | Worldwide |
| Olefins[(c)] | 4,176 | 2,040 | 1,958 | 8,174 | 7,689 | 7,864 |
| Aromatics[(d)] | 2,971 | 1,512 | 2,581 | 7,064 | 7,045 | 7,018 |
| Polyethylene | 1,120 | 223 | 1,095 | 2,438 | 2,438 | 2,438 |
| Polypropylene | 1,250 | 1,200 | 620 | 3,070 | 3,070 | 2,840 |
| Polystyrene | 414 | 610 | – | 1,024 | 1,024 | 1,024 |
| Other[(e)] | – | – | 116 | 116 | 116 | 116 |

(a) Including 50% of the joint venture between TotalEnergies and Borealis.
(b) Including interests in Qatar, 50% of Hanwha TotalEnergies Petrochemicals Co. Ltd. in South Korea and 37.5% of SATORP in Saudi Arabia.
(c) Ethylene + propylene + butadiene.
(d) Including styrene monomer.
(e) Mainly monoethylene glycol (MEG), polylactic acid polymer (PLA) and cyclohexane.

## PETROCHEMICALS PRODUCTION AND UTILIZATION RATE

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Monomers[(a)] *(kt)* | 5,005 | 5,775 | 5,519 |
| Polymers *(kt)* | 4,549 | 4,938 | 4,934 |
| Steam cracker utilization rate[(b)] | 76% | 90% | 83% |

(a) Olefins.
(b) Based on olefins production from steamcrackers and their treatment capacity at the start of the year.

## ACTIVITIES BY GEOGRAPHICAL AREA

### Europe

TotalEnergies is the second largest refiner and the second largest petrochemist in Western Europe[(1)]. In Europe, TotalEnergies also positions itself in the production of biofuels, mainly renewable diesel and ether (ETBE) produced from ethanol and isobutene for incorporation into gasoline.

In 2022, TotalEnergies actively contributed to ensuring the security of Europe's supplies for petroleum products, which had been undermined by the invasion of Ukraine by Russia and its consequences.

TotalEnergies is continuing to reduce its refining capacities in a context of adapting to demand for petroleum products in Europe. In 2021, it sold its interest in the Lindsey refinery in the United Kingdom and ceased processing crude oil at its Grandpuits refinery in the context of its conversion into a zero-crude platform.

Western Europe represents 68% of TotalEnergies' refining capacity, or 1,227 kb/d at the end of 2022, unchanged from year-end 2021 and compared with 1,437 kb/d at the end of 2020. TotalEnergies operates five refineries in Europe (one in Antwerp, Belgium, three in France, at Donges, Feyzin and Gonfreville, and one in Leuna, Germany) and one biorefinery in La Mède, France, pending the start-up of the Grandpuits zero-crude platform, and holds a 55% interest in the Zeeland refinery in Flessingue, the Netherlands.

TotalEnergies' main petrochemical sites in Europe are located in Belgium, in Antwerp (steam crackers, aromatics, polyethylene) and Feluy (polyolefins, polystyrene), and in France, in Carling (polyethylene, polystyrene, polypropylene compounds), Feyzin (steam cracker, aromatics), Gonfreville (steam crackers, aromatics, styrene, polyolefins, polystyrene) and Lavéra (steam cracker, aromatics, polypropylene). Europe accounts for 45% of TotalEnergies' petrochemicals capacity, namely 9,931 kt at year-end 2022, and at year-end 2021 and 10,096 kt at year-end 2020:

- In **France**, TotalEnergies is continuing its development in low-carbon products while at the same time improving its operational efficiency, particularly through the conversion and modernization of assets. Furthermore, in line with its goal of carbon neutrality (net zero emissions) by 2050 together with society, TotalEnergies has undertaken several projects aimed at decarbonizing all the gray hydrogen consumption of its European refineries by 2030.
- In 2022, TotalEnergies continued the conversion project of its **Grandpuits refinery** into a zero-crude platform focused on new energies and low-carbon activities:

  For the development of **biofuel** production activities, a major milestone was reached in September 2022 with the signing of an agreement with SARIA, a leader in the European market[(2)] for the collection and transformation of organic materials into sustainable products. This agreement, which provides for TotalEnergies to take a 50% interest in a SARIA production unit, and for SARIA to take an equivalent interest in the biorefinery, makes it possible to secure the supply of used cooking oils and animal fats, raw materials eligible for the production of sustainable aviation fuel or SAF. Thanks to this partnership, biorefinery, which is expected to start in 2025 and to produce mainly SAF, up to 210 kt/y.

  In November 2022, TotalEnergies and Air Liquide signed an agreement to produce and promote renewable and low-carbon hydrogen at Grandpuits. Under a long-term contract, committing TotalEnergies to purchase the hydrogen produced for the needs of its platform, Air Liquide plans to invest over €130 million in the construction and operation of a new unit producing hydrogen. This unit should partly use biogas from the biorefinery built by TotalEnergies and should be delivered with Air Liquide's carbon capture technology, Cryocap™. These innovations are expected to avoid emissions amounting to 150 kt/y $CO_2$ compared to current processes. The biorefinery, operated by TotalEnergies, will use the unit's hydrogen to produce sustainable aviation fuel.

(1) Publicly available information on refining and petrochemical production capacities at year-end 2021.
(2) TotalEnergies data.

For the development of **biopolymer** activities, the joint venture TotalEnergies Corbion, which already operates the Rayong plant (Thailand) with PLA production capacity of 75 kt/y, plans to build its second bioplastics plant at Grandpuits, with a capacity of 100 kt/y. With the start-up of this second plant expected for 2025, TotalEnergies Corbion expects to become one of the world's biggest producers of PLA.

For the development **of plastic recycling** activities, TotalEnergies has planned the construction, in partnership with Plastic Energy, of the first advanced recycling plant in France, with the capacity to process 15 kt/y of plastic waste. This unit will be able to convert plastic waste by pyrolysis into a recycled raw material called TACOIL™. This raw material will then be transformed by TotalEnergies into polymers with properties identical to those of virgin polymers, and in particular compatible with food use. Start-up is expected for the end of 2023.

- At the **La Mède** site, the first French biorefinery, with a 500 kt/y capacity, produces renewable diesel since 2019 and SAF since 2021.

  In January 2021, TotalEnergies signed a cooperation agreement with Engie to design, develop, build and operate the largest green hydrogen production site in France[1]. Located at the La Mède site, the 120 MW electrolyzer is expected to produce 50 Mt/d of green hydrogen by 2026, thus avoiding around 120 kt/y of $CO_2$ emissions, equivalent to the annual emissions of 10,000 French people.
- On its integrated **Normandy platform,** TotalEnergies began producing sustainable aviation fuel from co-processing in March 2022. Also, TotalEnergies and Air Liquide have partnered to decarbonize the site's hydrogen production. In 2022, TotalEnergies transferred the hydrogen production unit, with a capacity of 255 t/d, to Air Liquide, which now operates it. The two partners will jointly implement a $CO_2$ capture and storage solution. The ultimate goal of this project is to reduce the $CO_2$ emissions from hydrogen production on the site by approximately 650 kt/y by 2030.
- The **Donges refinery,** which had been shut down since the end of 2020 (economic shutdown in a context of sharp deterioration in refining margins as a result of the COVID-19 pandemic, followed by a major planned shutdown) restarted in May 2022, returning to its normal level of activity. In addition, the project to modernize the site, representing a total investment of more than €400 million, is progressing: the new section of the railway bypassing the site was put into operation in October 2022 and the construction of the diesel desulphurization unit is continuing. This unit is expected to start in 2023 and improve the refinery's competitiveness by producing fuel containing less sulfur that meets European standards.
- **Synova** is one of the French leaders in the production of high-performance recycled polypropylene from plastics from industrial waste, the selective collection of waste from households and automotive parts such as bumpers. In October 2021, the commissioning of two new production lines at the Tillières-sur-Avre site in France doubled TotalEnergies' recycled polypropylene production capacity to 45 kt/y enabling to meet the growing demand for increasingly high-performing and environmentally friendly polymers, particularly from OEMs and automakers.

- In **Belgium**, TotalEnergies operates the Antwerp platform, where a major upgrade completed in 2017 has improved the site's conversion rate. The upgrade also increased the flexibility of the site's steam crackers, which can process ethane and gases recovered from the refining process. In polymers, the activities launched as part of a project to modernize the Feluy site (production of high value-added polypropylene, catalyst production workshop, polystyrene recycling) started in 2021, while one of the three existing polypropylene units, which mainly produced polypropylene as a commodity and had been in service for 40 years, was closed down in 2020. On this Antwerp platform, TotalEnergies also produces chemically recycled polymers, using the TACOIL™ produced by Plastic Energy, with which TotalEnergies partnered in 2020 to build the advanced recycling unit at Grandpuits.
- In **Germany**, TotalEnergies operates the Leuna refinery. As announced by the Company at the beginning of the invasion of Ukraine by Russia. TotalEnergies has unilaterally decided no longer to enter into or renew any contracts to purchase Russian oil and petroleum products, with a view to halting all its purchases of Russian oil and petroleum products as soon as possible and in any case by the end of 2022. TotalEnergies has accordingly put an end to the supply of Russian oil to the Leuna refinery and, in close consultation with the German government, has deployed alternative solutions to power the refinery, particularly by importing oil via Poland.

### North America

TotalEnergies' main sites in North America are located in Texas, at Port Arthur (refinery, steam cracker), Mont Belvieu (propylene splitter), Bayport (polyethylene) and La Porte (polypropylene), and in Louisiana, at Carville (styrene, polystyrene).

At Port Arthur, TotalEnergies has, at the same site, a refinery with a capacity of 178 kb/d, a condensate splitter with a capacity of 60kb/d and a 40% interest in BASF TotalEnergies Petrochemicals (BTP), which mainly owns and operates a steam cracker with the capacity to produce more than 1 Mt/y of ethylene, of which more than 85% from ethane, propane and butane, which are produced in abundance locally.

In Mont Belvieu, TotalEnergies owns 33% of a propylene splitter, with a capacity of 410 kt/y in TotalEnergies' share, which purifies propylene from the refining process into propylene for the production of polypropylene at the La Porte site.

At La Porte, TotalEnergies holds a 100% interest in a large polypropylene plant, with a capacity of 1.2 Mt/y.

At Carville, TotalEnergies operates a styrene plant with a capacity of 1.2 Mt/y, through a joint venture (50% with SABIC), and a polystyrene unit with a capacity of 600 kt/y, which is 100% owned.

In the third quarter of 2022 the 50/50 joint venture established in 2018 between TotalEnergies and Borealis commissioned a new ethane cracker at the Port Arthur site, with an ethylene production capacity of 1 Mt/y and representing an investment of nearly $2 billion. The joint venture also continued construction of a new polyethylene unit downstream of the cracker, at the Bayport site. Representing an investment of $1.4 billion, this integrated development should more than double the site's polyethylene production capacity to about 1 Mt/y and thus maximize synergies with existing assets at Port Arthur and Bayport.

In 2020, TotalEnergies sold its remaining interest in Amyris Inc., an American NASDAQ-listed company that specializes in the production of farnesene.

### Asia, Middle East and Africa

TotalEnergies holds interests in first-rate platforms that are ideally positioned, with easier access to feedstock under competitive conditions, enabling it to pursue its development in order to supply growth regions.

(1) TotalEnergies data.

In **Saudi Arabia**, TotalEnergies has a 37.5% shareholding in SATORP (Saudi Aramco Total Refining and Petrochemical Company), which operates the Jubail refinery. This 460 kb/d refinery, located close to Saudi Arabia's heavy crude fields, can process heavy crude oil and produce fuels and other light products that meet the strictest specifications and are largely earmarked for export. In order to ensure as far as possible the security of Europe's supply of petroleum products in the context of sanctions on imports of Russian petroleum products, TotalEnergies has decided to direct its share of SATORP's diesel production to Europe. The refinery is also integrated with petrochemical units: an 800 kt/y paraxylene unit, a 200 kt/y propylene unit, and a 140 kt/y benzene unit. In addition, TotalEnergies and Saudi Aramco signed a development agreement in 2018 for the construction of a world-scale petrochemicals complex adjacent to the refinery. This project, the final investment decision on which was taken in December 2022, provides for the construction of a mixed feed steam cracker (50% each, ethane and refinery off-gas) with a capacity of 1.65 Mt/y and polyethylene units with a capacity of 1 Mt/y. The steam cracker is also expected to feed other petrochemical and specialty chemicals units owned by third-party investors located in the Jubail Industrial Zone.

In **South Korea**, TotalEnergies owns 50% of Hanwha TotalEnergies Petrochemical Co. (HTC), which operates an integrated platform at the Daesan site, comprising a condensate splitter, a steam cracker and styrene, paraxylene and polyolefin production units. HTC is positioned on high value-added sustainable applications and specialty markets, such as underfloor heating pipes or automotive, contributing in particular to making vehicles lighter. Investments of $1.3 billion between 2017 and 2021 increased the production capacity of ethylene to 1.5 Mt/y, polyethylene to 1.1 Mt/y and polypropylene to 1.1 Mt/y.

In **Qatar**, TotalEnergies holds interests[(1)] in two ethane-based steam crackers (Qapco, Ras Laffan Olefin Cracker-RLOC) and four polyethylene lines operated by Qapco in Mesaieed, including a linear low-density polyethylene plant with a capacity of 550 kt/y (Qatofin) and a 300 kt/y low-density polyethylene line (Qapco). TotalEnergies also holds a 10% interest in the Ras Laffan condensate refinery, with a total capacity of 300 kb/d.

In **Algeria**, in early 2019, TotalEnergies created the STEP joint venture (Sonatrach Total Entreprise de Polymères, in which Sonatrach holds 51% and TotalEnergies 49%) to study a petrochemical project in Arzew, in northwestern Algeria.

In **Japan,** TotalEnergies partnered with ENEOS Corporation in April 2022 to launch a feasibility study for a SAF production unit at an ENEOS refinery, initially at the Negishi site. Following an in-depth review of the production units and loading and unloading facilities at several sites, ENEOS and TotalEnergies finally decided on the Wakayama refinery rather than Negishi, which improves the competitiveness of the project. The contemplated unit, with a production capacity of 300 kt/y of SAF, would process waste or residues from the circular economy (mainly cooking oils and animal fats). The two partners have planned to create a joint venture dedicated to SAFs.

In the **United Arab Emirates** in January 2022, TotalEnergies, Masdar and Siemens Energy signed a collaboration agreement to co-develop a demonstration plant to produce green hydrogen and convert carbon dioxide into SAF. The plant is expected to be established in Masdar City, Abu Dhabi's flagship sustainable urban development.

In Africa, TotalEnergies has interests in four refineries (South Africa, Cameroon, Côte d'Ivoire and Senegal). Refining & Chemicals provides technical assistance for two of these refineries: the Natref refinery with a capacity of 109 kb/d in South Africa and the SIR refinery with a capacity of 80 kb/d in Côte d'Ivoire.

## R&D AND PARTNERSHIPS

As part of the consolidation of its R&D activities within OneTech (refer to point 1.7 of chapter 1), TotalEnergies has intensified its research efforts in the field of biofuels through the creation of a dedicated program. This strategic program, aimed at the development of permanent sustainable solutions based on waste, calls on a wide range of skills (modeling, agronomics, life cycle analysis, biotechnology, catalysis, thermochemicals, chemicals, industrial processes) to identify the most promising technologies contributing to achieving the goal of carbon neutrality (net zero emissions) by 2050, together with society.

In this dynamic, the microalgae cultivation platform, the result of the collaboration between TotalEnergies and Veolia, was inaugurated in November 2022 at the La Mède site. The purpose of this platform is to test various innovative algae cultivation technologies developed by third parties (universities, start-ups), in order to identify and promote those compatible with the production of next-generation low-carbon biofuels.

TotalEnergies develops other R&D partnerships and actions in the field of low-carbon products.

The strategic partnership with Safran, initiated in 2021, intensified in 2022, notably with the formulation of a SAF that is fully compatible with the fleets of aircraft currently in operation.

In May 2022, TotalEnergies and New Hope Energy announced the signing of a commercial agreement whereby New Hope commits to sell to TotalEnergies part of the production of its future advanced recycling plant, to be built in Texas and scheduled for commissioning in 2025. TotalEnergies expects to use 100 kt/y of this production from plastic waste as a raw material for the manufacture of polymers with properties identical to those of virgin polymers, and in particular compatible with food use.

In March 2022, TotalEnergies and FNSEA, a French umbrella organization charged with the national representation of 20,000 local agricultural unions and 22 regional federations, formed a partnership to support and accelerate the energy, environmental and economic transition of the agricultural sector in France. This partnership aims in particular to promote solutions to produce biofuels by developing new agricultural sectors through the recovery of agricultural residues, low greenhouse gas crops or intermediate crops.

In February 2022, TotalEnergies and Honeywell announced a strategic agreement to promote the development of advanced plastic recycling. Under this agreement, Honeywell is expected to supply TotalEnergies with Recycled Polymer Feedstock (RPF) produced by its future plant jointly owned with Sacyr in Spain. This plant, expected to start-up in 2023, is planned to have a processing capacity of 30 kt/y of plastic waste, much of which is currently sent to landfills or incinerated. TotalEnergies is expected to purchase and convert this raw material into recycled polymers with exactly the same properties as virgin polymers, which notably could be used for food.

In December 2021, Plastic Energy and TotalEnergies signed a comprehensive agreement allowing TotalEnergies to acquire part of the production of the new pyrolysis unit, to be built by Plastic Energy in Seville, Spain. The plant, scheduled for commissioning in 2025, will have a waste treatment capacity of 33 kt/y.

(1) TotalEnergies interests : Qapco (20%); Qatofin (49%); RLOC (22.5%).

In December 2021, TotalEnergies and Plastic Omnium signed a strategic partnership agreement to jointly develop recycled polypropylene plastics that meet the demanding standards of automotive body parts, particularly in terms of aesthetics and safety. Under the terms of this agreement, the pa will pool their innovation and engineering skills to design new types of recycled polypropylenes that are more efficient and environmentally friendly, while providing concrete answers to the challenges of the end-of-life of plastics.

In October 2021, TotalEnergies, Freepoint Eco-Systems and Plastic Energy announced a strategic partnership for a project to build an advanced recycling plant in Texas. This joint venture with Plastic Energy and Freepoint Eco-Systems, which is expected to be put into service in 2024, is designed to process 33 kt/y of plastic waste to produce TACOIL™, a raw material from which TotalEnergies will manufacture recycled polymers.

In May 2020 TotalEnergies signed an agreement to develop a strategic partnership in plastic recycling with PureCycle Technologies, a company that has developed an innovative technology to produce recycled polypropylene with properties equivalent to those of virgin polypropylene. Under the terms of agreement, TotalEnergies has committed to purchase part of the output of PureCycle Technologies' future facility in the United States and to assess the interest of developing a new plant together in Europe.

### 2.4.1.2 ELASTOMER PROCESSING (HUTCHINSON)

The elastomer transformation specialist Hutchinson is one of the world leaders in anti-vibratory systems, fluid management, precision sealing and bodywork sealing. These solutions are used worldwide, especially in the automotive, aeronautical and industrial manufacturing sectors (defense, railroads, energy).

Hutchinson draws on wide-ranging expertise and employs its know-how from the custom design of materials to the integration of connected solutions: structural sealing solutions, precision sealing, management of fluids, materials and structures, anti-vibration systems and transmission systems.

After being heavily impacted by the fall in demand linked to the health crisis, due to its exposure to the automotive and air transport sectors, sales stabilized in 2021 and increased again in 2022. The continuation of actions aimed at lowering the break-even of its activities, particularly in a context of inflation in the cost of raw materials, is expected to enable Hutchinson to maintain its competitiveness in its markets.

As of December 31, 2022, Hutchinson has 84 production sites across the world (of which 52 are in Europe and 17 are in North America) and approximately 40,000 employees.

## 2.4.2 Trading & Shipping

The activities of Trading & Shipping are focused primarily on serving the needs of TotalEnergies, and mainly include:

- selling and marketing the TotalEnergies' crude oil production,
- providing a supply of crude oil for TotalEnergies' refineries,
- importing and exporting the appropriate petroleum products for TotalEnergies' refineries to be able to adjust their production to the needs of local markets,
- chartering appropriate ships for these activities, and
- trading in various derivatives markets.

In addition, with its acquired expertise, Trading & Shipping is able to expand its scope of operations beyond its primary scope of activities.

Trading & Shipping conducts its activities worldwide through various subsidiaries that are wholly owned by TotalEnergies and are established in strategically important oil markets in Europe, Asia and North America.

For additional information on the trading activities of the Integrated Gas, Renewables & Power segment, refer to section 2.1.

### 2.4.2.1 TRADING

The invasion of Ukraine by Russia in February 2022, and its consequences, have driven the prices of oil above \$100/b, thereby amplifying the upward trend observed since the second half of 2021, due to a lack of investments in hydrocarbons. Prices remained at a high level throughout the year 2022, in particular due to the decision made by the OPEC+ countries to reduce production quotas as well as the anticipation of the European sanctions against Russian oil in force since December 5, 2022. The oil market continues to be characterized by high volatility.

TotalEnergies is one of the world's largest traders of crude oil and petroleum products on the basis of volumes traded[1]. The table below presents Trading's worldwide crude oil sales and supply sources and petroleum products sales for each of the past three years. Trading of physical volumes of crude oil and petroleum products amounted to 6.3 Mb/d in 2022[2] as in 2021, compared to 5.9 Mb/d in 2020.

(1) TotalEnergies data.
(2) Including LPG volumes from March 1, 2022 of 243 kb/d.

### TRADING'S CRUDE OIL SALES AND SUPPLY, AND PETROLEUM PRODUCT SALES[(a)]

| (kb/d) | 2022 | 2021 | 2020 |
|---|---|---|---|
| TotalEnergies' liquids production | 1,519 | 1,500 | 1,543 |
| Purchases from Exploration & Production | 1,282 | 1,241 | 1,286 |
| Purchases from external suppliers | 2,535 | 2,803 | 2,502 |
| **TOTAL OF TRADING'S CRUDE SUPPLY** | **3,817** | **4,044** | **3,788** |
| Sales to Refining & Chemicals and Marketing & Services segments | 1,257 | 953 | 975 |
| Sales to external customers[(b)] | 2,560 | 3,091 | 2,813 |
| **TOTAL OF TRADING'S CRUDE SALES** | **3,817** | **4,044** | **3,788** |
| **PETROLEUM PRODUCTS SALES BY TRADING** | **2,512[(c)]** | **2,262** | **2,095** |

(a) Including condensates.
(b) Including inventory variations.
(c) Including LPG volumes from March 1, 2022 of 243 kb/d.

Trading operates extensively in physical and derivatives markets, both organized and over the counter. In connection with its Trading activities, TotalEnergies uses derivative energy instruments (*futures, forwards, swaps and options*) in order to adjust its exposure to fluctuations in the price of crude oil and petroleum products. These transactions are entered into with a wide variety of counterparties.

For additional information concerning derivatives transactions by Trading & Shipping, refer to Note 16 (Financial instruments related to commodity contracts) to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

All of TotalEnergies' Trading activities are subject to a strict risk management policy and trading limits.

## 2.4.2.2 SHIPPING

The transportation of crude oil and petroleum products necessary for the activities of TotalEnergies is coordinated by Shipping. These requirements are fulfilled through the balanced use of spot and time-charter markets. Excess transport capacity can be sub-chartered to third parties. Shipping maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards.

In 2022, Shipping chartered approximately 2,800 voyages (compared to 2,700 in 2021 and 2,750 in 2020) to transport 134 Mt of crude oil and petroleum products, compared to 120 Mt in 2021 and 119 Mt in 2020. As of December 31, 2022, the mid-term and long-term chartered fleet numbered 59 vessels (including 12 LPG vessels), compared to 47 in 2021 and 58 in 2020. The average age of the fleet is approximately six years (the average age of the fleet time-chartered by TotalEnergies, including LNG carriers, being approximately seven years).

TotalEnergies is pursuing its strategy to reduce greenhouse gas emissions. Therefore, TotalEnergies is integrating new time-chartered vessels in its fleet that are capable of using LNG and are equipped with the latest technologies that achieve better performance and produce the lowest emissions of greenhouse gases in their category. TotalEnergies' time-chartered fleet already includes six vessels of this type; it plans to include four new ones in 2023.

Moreover, TotalEnergies pursues various initiatives:

- in the first quarter of 2023, a test using 200 tons of second-generation biodiesel was carried out in Europe on board one of the vessels of the time-chartered fleet. The biofuel was supplied by TotalEnergies Marine Fuels in the port of Le Havre (France),
- TotalEnergies approved with its partners a project to install two rotating masts on board a petroleum product transport vessel, the sails of which are expected to allow an immediate reduction of 8% of the ship's emissions, and are expected to be in place at the end of 2023.

The use of alternative fuels that emit less greenhouse gases and the implementation of innovative technologies to improve the energy efficiency of ships are concrete voluntary actions which aim to immediately support the Company's efforts to reduce the environmental footprint of its maritime transport activities.

Shipping intends to also contribute to the Company's energy transition through its participation in various industry initiatives:

- TotalEnergies is a signatory of the Sea Cargo Charter, an initiative launched in 2020 by the largest shipping players to create a consistent, transparent method for measuring emissions in support of efforts to decarbonize the shipping industry. The charter establishes a common baseline for determining, on the basis of defined standards, whether shipping activities are aligned with the International Maritime Organization's climate ambitions. Its primary goal is to set up ongoing measurements of greenhouse gas emissions, in order to reduce them by at least 50% by 2050 through concrete steps taken by each player. On the occasion of the first publication of the results in 2022, based on the journeys made in 2021, the global score of TotalEnergies' chartering activities is better than the reference value of the Sea Cargo Charter,
- In 2020, TotalEnergies joined the Getting to Zero coalition and supports the maritime industry's decarbonization by collaborating with companies across the maritime, energy, infrastructure and finance sectors. Joining the Coalition marked a further step in TotalEnergies' commitment alongside its customers in the maritime sector and illustrates the Company's strategy to support them in their own emissions reductions,
- TotalEnergies has been a strategic partner of the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping since February 2021. Through this collaboration, TotalEnergies is accelerating its R&D program in carbon-neutral shipping solutions, in line with its commitment to work with its major customers to achieve carbon neutrality (net zero emissions). This partnership allows TotalEnergies to join forces with leading players across the shipping sector to develop new low carbon alternative fuels as well as carbon neutrality solutions.

As part of its Shipping activity, TotalEnergies uses freight rate derivative contracts to adjust its exposure to market fluctuations.

## 2.5 Marketing & Services segment

Marketing & Services includes the global supply and marketing activities of oil products and services, low-carbon fuels and new energies for mobility. It contributes to the transformation of TotalEnergies and proactively supports its customers in their transition towards more sustainable energies and mobility. With a direct presence in close to 110 countries, Marketing & Services (M&S) caters to customers with various needs for energy, mobility and associated services. M&S also caters to a wide range of professional customers in terms of size and industry (transport, manufacturing, agriculture, etc.), and individual customers, through its retail network of over 14,600 service stations and 42,000 public and private electric charging points.

**Main indicators**

**2nd**
Largest retail distribution among majors outside of North America[(1)]

**4th**
Worldwide distributor of inland lubricants[(2)]

**More than 14,600**
Branded service stations[(3)] as of December 31, 2022

**More than 42,000**
Operated charging points as of December 31, 2022

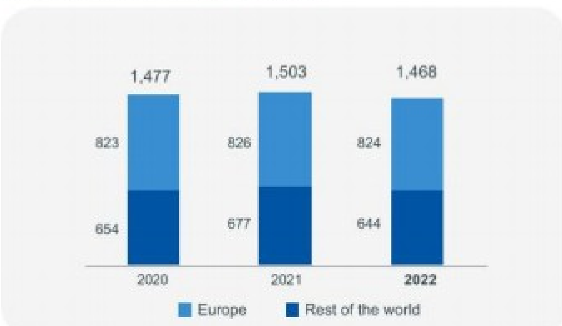
**Our objectives**

**150,000**
Charging points

**400**
Service stations equipped with high-power charging by 2025 in Europe

**100**
Operated hydrogen stations[(4)] in Europe by 2030

**Petroleum products sales**[(a)] *(in kb/d)*




(a) Excludes trading and bulk refining sales.

Sales of petroleum products were slightly down by 2% in 2022, as lower sales to professional and industrial customers, particularly in Europe, were partially offset by the recovery of aviation and network activities worldwide.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

(1) *Global Retail Company Data Manager (2022 report)*, S&P Global, based on the number of service stations for TotalEnergies, BP, Chevron, ExxonMobil and Shell in 2021.
(2) *Global Lubricants - Company Positioning Overview (2022 report)*, S&P Global, based on the 2020 market share.
(3) TotalEnergies, Access, Elf, Elan and AS24. Including service stations owned by third parties under the Company's brands. Third-party service stations with only terminals accepting the AS24 card are not counted.
(4) Directly or through shareholdings.

## 2.5.1 Presentation of the segment

M&S has been historically formulating and marketing various ranges of petroleum fuels and lubricants. In addition, M&S develops an increasing number of associated services, both made available within its service stations network (catering, washing, shops, etc.) and to industrial customers. It also offers its clients new energy and mobility services such as biofuels, electric charging, LNG for ships, natural gas, biogas or hydrogen for other transport modes.

TotalEnergies has a strong presence in Western Europe (Benelux, France, Germany) and in Africa, where M&S is among the leaders[(1)] in the petroleum products distribution (in terms of number of service stations).

M&S strategy is in line with the Company's climate ambition. M&S aims to maximize value through a selective customer and geographic approach, while offering services and energies which environmental impact is compatible with this ambition.

By 2050, the global energy demand for transport is expected to have significantly changed to become more complex and with different energy mixes depending on the use cases. For light vehicles, the Company expects a strong growth in electric mobility, which should result in a lower absolute energy demand as a consequence of improved efficiency and performance of electrically powered vehicles (as opposed to internal combustion engines). M&S also plans on developing its heavy-duty vehicles offering to progressively substitute liquid fuels, including biofuels. Hydrogen will serve the use cases most difficult to electrify, such as long-haul transport. In air and maritime transport, TotalEnergies aims to develop its offering of sustainable fuels from biomass, from the circular economy as well as hydrogen-based fuels (synthetic fuels), despite technological and scalability uncertainties.

In terms of road transport regional trends, TotalEnergies expects in Europe where rates of motorized transport are stabilizing, the oil demand (liquid fuels, including biofuels) to decline in the light vehicles segment as fleets' electrification progresses, supported by the European Green Deal (set of European Union measures aiming to achieve carbon neutrality by 2050 in particular). The Company expects oil demand to remain strong until 2030 in Africa and Asia.

In this changing environment, M&S's strategy aims at proactively anticipating its sales' mix decarbonization in the face of shifting demand, including in Europe.

In the retail **network** segment, this strategy mainly consists in developing revenues from non-fuel activities in service stations (Bonjour branded stores, Wash branded car wash services and catering, where M&S develops partnerships with leading brands...), as well as associated services including a multi-energy offering.

As such, on March 16, 2023, the Company announced having signed agreements with Alimentation Couche-Tard ("Couche-Tard") covering TotalEnergies' retail networks in four European countries, with:

- in Belgium and Luxembourg, the creation of a joint venture (TotalEnergies 40%, Couche-Tard 60%) that will own and operate 619 service stations and accelerate the transformation of these assets by maximizing their non-fuel sales,
- in Germany and the Netherlands, the cession of its networks of nearly 1 600 service stations to Couche-Tard to focus instead on developing new mobilities (electric and hydrogen) in these countries.

The service stations in the four countries will remain under the TotalEnergies brand as long as the fuel is supplied by the Company, for at least five years. In these countries, TotalEnergies will retain its activities related to off-station electric vehicle charging (charging hubs), hydrogen retail and wholesale fuel business, as well as the AS 24 service station network for trucks. The closing of the transaction is subject to approval from the authorities, among else.

M&S keeps developing its mobility solutions offering across more than 70 countries (AS 24 included), to provide companies of all sizes with fuel payment solutions, electric charging access from many networks, and associated fleet management services.

**The lubricants production and marketing activities** represent a significant share of M&S's results. These products, which in most cases, do not generate GHGs when used, continue to exhibit a strong value creation potential. M&S aims to:

- maintain a continuous upmarket effort (with premium and specialty products),
- incorporate technologies and services in the field of industrial lubricants,
- build a leading position in the fluids for e-mobility segment in order to continue supporting its customers' vehicles fleet transition, and
- develop sustainable solutions to increase the use of recycled base oils.

With one million customers, the **B2B** portfolio is an important M&S asset. Its development relies on a selective marketing approach factoring in customers' activities and GHGs emissions to optimize the portfolio's value, and facilitate their energy transition.

To this end, the new OneB2B Solutions division was created in 2022. It offers multi-energy supply solutions adapted to the characteristics of each strategic market segment. The division acts as the focal point to coordinate the business relationship with the Company's Key Accounts to offer cross-functional solutions. An example of such service is the signing of a memorandum of understanding between TotalEnergies and Holcim in October 2022, to work together on fully decarbonizing one of their cement plants currently being modernized in Obourg, Belgium, to capture, store and use nearly 1.3 Mt of $CO_2$ emitted yearly by this site.

In the **new energies for mobility**, M&S builds strong regional positions in order to anticipate the evolution of demand:

- for **light vehicles**: M&S aims to operate 150,000 public and private charging points , through the service stations network (highways and main urban nodes, focusing on high power charging), in the public sector (concessions in major cities) as well as in B2B markets. The Company aims to cover the entire electric charging activities' value chain (from electricity supply, terminals installation, management and supervision, to the development of its roaming network),
- for **heavy-duty vehicles**: M&S is developing NGV stations, including LNG and biomethane, and plans to build a network of electric vehicles charging points in Europe that meets the needs of urban and regional transport, as well as a hydrogen stations network targeting long-haul transport.

(1) TotalEnergies data.

- In **maritime transport,** TotalEnergies offers its customers a diversified range of marine fuels (including biofuels), lubricants and associated services. The Company focuses on the development of LNG (including biomethane) and strengthens its LNG logistics resources in Amsterdam-Rotterdam-Antwerp, Singapore, and the Mediterranean. In addition, TotalEnergies participates in a number of initiatives to decarbonize maritime transport. In 2020, the Company joined the Getting to Zero coalition; TotalEnergies has also been a strategic partner of the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping (refer to section 2.4.2).
- In **aviation**, M&S continues developing the distribution of sustainable aviation fuels with, since June 2021, a SAF supply offer at Le Bourget airport. In December 2022, TotalEnergies signed an agreement with Air France-KLM to supply more than 1 Mcm SAF over the 2023 to 2032 period. This sustainable aviation fuel will be produced in the Company's biorefineries and made available to the Air France-KLM group's airlines. Over the past two years, TotalEnergies has already provided aviation fuel containing SAF for several Air France-KLM group commercial flights:
  - in May 2022, an Air France flight organized as part of the SkyTeam Sustainable Flight Challenge, between Paris and Montreal, was fuelled with 16% SAF,
  - in June 2022, several flights organized as part of the *Connecting Europe Days*, were fuelled with 30% SAF.

M&S's transformation projects are supported in the medium term with a significant organic investment plan ($1 billion in 2022), mainly focused on retail activities and new energies in 2022. In the coming years, TotalEnergies expects its activities related to new energies, low-carbon activities and services to grow significantly and become a pillar of M&S activities.

As part of its activities, M&S holds stakes, through its subsidiaries, in four refineries located in Africa. The Refining & Chemicals activities are presented in section 2.4 of this chapter.

## 2.5.2 Sales of petroleum products

The following table shows M&S's sales of petroleum products[a] by geographical area as of December 31:

| *(kb/d)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Europe | 824 | 826 | 823 |
| France | 439 | 440 | 418 |
| Europe, excluding France | 385 | 386 | 405 |
| Africa | 388 | 405 | 377 |
| Middle East[b] | 45 | 42 | 47 |
| Asia Pacific[c] | 123 | 131 | 135 |
| Americas | 88 | 99 | 95 |
| **TOTAL** | **1,468** | **1,503** | **1,477** |

(a) In addition to M&S's petroleum product sales, TotalEnergies' sales include international trading (2,012 kb/d in 2022, 1,696 kb/d in 2021 and 1,498 kb/d in 2020) and bulk refining sales (411 kb/d in 2022, 383 kb/d in 2021 and 434 kb/d in 2020).
(b) Including Turkey.
(c) Including the Indian Ocean islands.

## 2.5.3 Service stations breakdown

The table below shows the geographical breakdown of the Company-branded[a] service stations:

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| Europe[b] | 5,617 | 5,741 | 5,649 |
| *of which France* | *3,360* | *3,479* | *3,418* |
| Africa | 4,607 | 4,586 | 4,683 |
| Middle East | 1,058 | 1,061 | 1,017 |
| Asia Pacific[c] | 2,173 | 2,135 | 2,037 |
| Americas | 784[d] | 964 | 964 |
| AS 24 network (for heavy-duty vehicles) [e] | 408 | 405 | 389 |
| **TOTAL** | **14,647** | **14,892** | **14,739** |

(a) TotalEnergies, Access, Elf, Elan and AS 24, including service stations owned by third parties and those currently being converted. Turkey is included under the Middle East region.
(b) Excluding the AS 24 network.
(c) Including the Indian Ocean islands.
(d) Cessation of the retail network activities in Mexico effective Decembre 31, 2022.
(e) 2020 and 2021 data restated to exclude third-parties accepting the AS 24 card, previously reported under this figures.

## 2.5.4 Distribution of charging points for electric vehicles in Europe

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| France | 17,285 | 9,918 | 10,560 |
| Benelux | 16,089 | 10,271 | 6,710 |
| Germany | 3,902 | 3,164 | 2,493 |
| United Kingdom | 2,112 | 1,797 | 1,642 |
| Rest of Europe | 219 | 584 | 249 |
| Asia-Pacific | 2,912 | 108 | 24 |
| **TOTAL[a]** | **42,519** | **25,842** | **21,678** |

(a) 2020 and 2021 data restated to include the number of charging stations of the Asia-Pacific region not previously reported.

## 2.5.5 Activities by geographical area

The information below describes M&S's main activities by region and business area.

### 2.5.5.1 EUROPE

#### RETAIL

M&S develops a range of innovative and diversified products and services in response to changing market trends. At year-end 2022, the network accounts for more than 6,000 service stations under the Company's brands (including AS 24), mainly in Belgium, France, Germany, Luxembourg, and the Netherlands, in which M&S reached an average market share of 17%[1].

- In **France**, at year-end 2022, the dense network of service stations includes nearly 3,400 sites, including more than 1,900 branded TotalEnergies, more than 700 branded Access (service stations combining low prices with fuel quality) and more than 700 branded Elan (located in rural areas). TotalEnergies is the leading distributor of superethanol E85 in France in number of stations[2] with more than 870 sites offering this fuel, mostly renewable, at year-end 2022.

  TotalEnergies holds interests in 27 deposits in France, including 7 operated by TotalEnergies affiliated companies.
- TotalEnergies operates nearly 1,200 service stations under the Company's brands in **Germany**, more than 560 in **Belgium**, and nearly 400 in the **Netherlands** at year-end 2022.

In road transport, TotalEnergies is rolling out a dedicated offer in this growing segment with its AS 24 brand, whose fuel card is accepted in a network of more than 1,400 specialized stations for trucks in Europe. AS 24 is constantly expanding its geographical presence on the major roads for European road transport, mainly in Eastern Europe. AS 24 supports the transport sector energy transition by offering NGV in several European countries, and in particular bioNGV in France.

AS 24 also enhances its offering of innovative mobility-related services, in particular a satellite geolocation and payment system for the main European tolls.

Benefiting from a close proximity to their customers, the Company-branded service stations meet their daily needs with a multi-service and multi-product offering. Non-fuel activities (catering, Bonjour stores, Wash carwash centers - France's leading washing network[3]- local partnerships and cards) keep growing, contributing significantly to the retail's operating cash flow.

In the field of electric mobility, between May 2021 when it opened its first electric charging *hub* in France and year-end 2022, TotalEnergies has equipped more than 160 service stations with high-power charging points (150 kW or more) on highways and main roads in Benelux, France, and Germany.

#### NEW ENERGIES FOR MOBILITY

**Electricity**

In addition to the retail electrification activities and to the development of dedicated charging *hubs*, TotalEnergies has been developing in the field of B2G *(Business to Government*: the public sector) since 2020, through the following achievements:

- in 2020, TotalEnergies won calls for tenders in Amsterdam (Netherlands, 20,000 charging points) and Paris (France, 2,000 charging points), acquired Charging Solutions in Munich (2,000 charging points) and Blue Point London (1,600 charging points) and became a member of the Chargeup Europe alliance, which aims to support an expeditious and effortless electric vehicles charging infrastructure rollout in Europe,
- this momentum continued through 2021 and 2022 with tenders awarded in Amsterdam (Netherlands, 2,200 charging points), in Antwerp (Belgium, including high-power charging points) and Ghent (Belgium, 800 charging points), in the Flanders region (Belgium, 4,400 charging points), in Rotterdam (the Netherlands, 90 high-power charging points), and through the signing of a partnership with Uber to accelerate the transition of the ride-hailing drivers towards electric mobility, starting with France.

At year-end 2022, TotalEnergies operates a total of more than 39,000 charging points in Europe (including approximately 17,000 in B2G).

**Natural gas**

TotalEnergies operates more than 200 NGV stations in Europe at year-end 2022 under the TotalEnergies and AS 24 brands, essentially geared to road carriers.

In the marine segment, in 2020, TotalEnergies received its first liquefied natural gas (LNG) bunker vessel, among the world's largest in terms of capacity[4] (18,600 $m^3$), named *Gas Agility*, based in the Rotterdam region, then, at year-end 2021, its second ship, *Gas Vitality*, based in the Marseille-Fos region in France. Since 2020, *Gas Agility* and *Gas Vitality* have completed over 100 LNG bunkering operations overall.

(1) TotalEnergies data.
(2) Metropolitan France (excluding Corsica). Source: Syndicat National des Producteurs d'Alcool Agricole (SNPAA).
(3) TotalEnergies data.
(4) TotalEnergies data.

#### Biogas

TotalEnergies develops a commercial offering that integrates biomethane in LNG as a marine fuel to reduce local air pollutants ($NO_x$, $SO_x$ and fine particles) as well as the shipping sector's carbon footprint.

#### Ammonia

In 2021, the Marine Fuels business unit co-signed a Memorandum of Understanding along with 34 international shipping players to study the technical and economic feasibility of using ammonia as a marine fuel, intended for bulk carriers and deep-sea tankers more specifically, in a group led by Itochu.

#### Hydrogen

In February 2023, TotalEnergies and Air Liquide announced their decision to create an equally owned joint venture to develop a network of hydrogen stations, geared towards heavy duty vehicles. The partners aim to deploy more than 100 hydrogen stations on major European roads - in Benelux, France, and Germany - in the coming years. These stations, under the TotalEnergies brand, will be located on major strategic corridors.

TotalEnergies and Daimler Truck AG continue developing a hydrogen ecosystem for road transport in Europe, since their partnership was announced in 2021.

In Germany, in March 2022, TotalEnergies participated in a capital increase in the H2 Mobility joint venture along with historic partners and Hy24, aiming to operate over 200 stations able to suit heavy-duty vehicles' needs by 2030, therefore reiterating the Company's commitment to developing hydrogen filling stations. At year-end 2022, this network accounts for about 90 stations, including 20 located on the Company's sites.

In France, TotalEnergies holds a stake in HysetCo, which develops hydrogen-based urban mobility for professional fleets of light vehicles, notably through four distribution stations in the Ile-de-France region. New sites are expected to open in 2023, including a station equipped with an electrolyzer in Paris (Porte de Saint Cloud) in the first semester.

### LUBRICANTS AND SPECIALTIES

#### Lubricants

Second-largest distributor[1] of inland lubricants in Europe, TotalEnergies continues to develop in the continent, with a direct commercial presence and 12 lubricants and greases production sites in Belgium, France, Germany, Romania, Spain, Turkey and the United Kingdom. In Russia, TotalEnergies stopped producing lubricants at the end of May 2022 in accordance with its principles of action published on March 22, 2022.

#### Sustainable aviation fuel

TotalEnergies produces and distributes aviation fuels containing SAF. Since June 2021, TotalEnergies has been providing its airline customers from Paris-Le Bourget airport with aviation fuel with 30% SAF made from used cooking oils or animal fats from the circular economy (beyond the 2025 minimum incorporation rate of 2% provided for by the Refuel EU Aviation regulation), as part of the shared ambition of public and private players to meet a two-fold challenge: to continue decarbonizing air transport while supporting territories' economies and tourism.

#### Other Specialties

In Europe, TotalEnergies produces and markets bulk fuels and specialty products, special fluids and specialty bitumens.

### COMMERCIAL SALES AND MOBILITY SOLUTIONS

At year-end 2022, TotalEnergies is a major player in professional mobility in Europe with approximately 3.8 million cards. They allow companies of all sizes to better manage their fleets' energy expenditures and access increasingly numerous services and partnering networks, such as Carglass and Norauto in France and Auto5 in Belgium.

TotalEnergies offers companies solutions aiming at optimizing their corporate fleet and employee mobility-related costs, irrespective of the type of engines (conventional fuels, electricity, gas, etc.), while helping them reduce their carbon footprint. TotalEnergies' offer includes a multi-energy and multiservice card, a powerful fleet management tool and an on-board telematics solution. In addition, TotalEnergies proposes an electric mobility offering tailored to users' needs, with services ranging from the installation to the monitoring of electric charging points at companies' premises, at employees' homes, on the road and at establishments servicing the public. At year-end 2022, the Fleet card provides access to a wide network of more than 370,000 charging points in Europe (including roaming agreements), for electric vehicle drivers to charge up their vehicle.

In addition, TotalEnergies markets the Mobility Corporate card, a Mastercard international payment card designed to suit travelling professionals at all times. Like the Fleet card, this card can be used to pay for fuel, electric vehicles charging sessions, parking, tolls, automotive maintenance, car wash incurred expenses and in-store purchases at TotalEnergies and partnering networks. In addition, the Mobility Corporate card can be used to pay for all employee mobility-related professional expenses such as: hotels, restaurants, transport, vehicle rentals and taxis, as well as energy, parking and maintenance costs on a wider network.

## 2.5.5.2 AFRICA

### RETAIL

TotalEnergies is the leading petroleum products retailer in Africa in 2022 with a 16%[2] market share, and seeks to achieve a higher profitable growth than that of the markets.

In 2022, the African retail network comprised more than 4,600 Company-branded service stations across 35 countries approximately. TotalEnergies has large retail networks, particularly in Egypt, Morocco, Nigeria, and South Africa, and continues to proactively manage its assets portfolio in 2022 with the announcement of ADNOC's acquisition of TotalEnergies Marketing Egypt as part of a strategic partnership.

In December 2021, TotalEnergies strengthened its presence in Mozambique with the acquisition of a network of 26 service stations, a wholesale fuel business and logistics assets.

(1) *Global Lubricants - Company Positioning Overview (2022 report)*, S&P Global, based on the market share.
(2) Estimated market share. TotalEnergies data.

M&S diversifies its offering at service stations and provides a range of products and new services, which include restaurants, convenience stores and car washes. To this end, TotalEnergies develops partnerships to gradually introduce new e-payment solutions across the continent allowing for an improved customer experience at the point of sale. M&S relies on TotalEnergies Mobility Services International as a fuel card software and organizational solutions provider, that is active in the African market.

### LUBRICANTS

TotalEnergies is the leading distributor[1] of lubricants on the African continent and pursues its growth strategy in the B2B and B2C markets. M&S relies on nine lubricant production sites operated in Algeria, Egypt, Kenya, Morocco, Nigeria (two sites), Senegal, South Africa, and Tanzania. Through its TotalEnergies Workshop Concept, TotalEnergies continues to deploy automotive maintenance services offered at the Quartz Auto Services, Rubia Truck Services or Hi-Perf Moto Services locations.

### COMMERCIAL SALES AND MOBILITY SOLUTIONS

TotalEnergies is an established partner for industrial customers in Africa regardless of their sector of activity: agri-food, construction, electricity generation, mining, or transport. TotalEnergies provides innovative fuel management solutions and adds hybrid offers incorporating solar energy to its existing portfolio of products and services.

Industrial customers continue to benefit from TotalEnergies' support in the operation and maintenance of their on-site facilities. In particular, TotalEnergies offers solutions to ensure the continuity of their operations, whether through the control of supply or the delivered products' quality. For example, the implementation of filtration systems makes it possible to guarantee the highest levels of cleanliness and thus increase the reliability of the vehicles used. The increased use of digital technology also enables business customers to reduce their costs by optimizing ordering and payment processes, or by making information such as inventory levels, the position of trucks carrying out deliveries or the clogging status of filters available in real time, thanks to the use of connected objects.

## 2.5.5.3 ASIA-PACIFIC/MIDDLE EAST

M&S markets its products and services in more than 20 countries in this region.

### RETAIL

At year-end 2022, TotalEnergies accounts for nearly 3,200 service stations in the Asia-Pacific/Middle East region, with service station networks in Cambodia, China, Jordan, Lebanon, Pakistan, the Philippines, the Pacific Islands, Saudi Arabia, and Turkey. TotalEnergies continues to grow on major markets, including China, in traditional activities, as well as in electric mobility. In October 2021, TotalEnergies and Saudi Aramco launched the first stations of their retail network partnership in Saudi Arabia.

TotalEnergies continues to improve the quality of its EXCELLIUM premium additive fuel brand, offering even greater energy efficiency. In 2022, TotalEnergies launched its own range of automotive maintenance products, including fuel additives and high-end cooling liquids, across the region.

### NEW ENERGIES FOR MOBILITY

#### Electricity

TotalEnergies continues developing in the field of electric mobility in Asia. In China, the Company teamed up with the China Three Gorges Corporation in 2021 to develop a fast charging network for electric vehicles in Wuhan and in the Hubei province. At year-end 2022, this network accounts for more than 1,300 charging points, with a target of 11,000 high-power charging points by 2025.

In February 2022, TotalEnergies completed the acquisition of Bluecharge, an electric vehicle charging network in Singapore with more than 1,500 charging points. TotalEnergies took over the management and operation of the urban charging network that it continues developing. This network is accessible to electric vehicles owners, including the leading car-sharing service BlueSG. This acquisition also enables TotalEnergies to contribute to the country's 2030 national sustainable development program, while developing its commercial footprint in Singapore.

In March 2022, TotalEnergies entered the electric vehicle charging sector in India through its joint venture with Adani Group, with plans to establish an extensive network of fast-charging stations across the country.

#### Natural gas and biofuel

In NGV, TotalEnergies develops a network of CNG (Compressed Natural Gas) and LNG (Liquefied Natural Gas) stations in India with its partner Adani (more than 350 stations at year-end 2022).

As far as shipping is concerned, TotalEnergies has been developing since 2019 an LNG bunkering supply chain in the port of Singapore along with its partner Pavilion Energy Singapore. In March 2021, the Maritime and Port Authority of Singapore (MPA) granted a third LNG bunkering licence to TotalEnergies Marine Fuels for a five-year period starting January 1, 2022. The arrival of the *Brassavola* LNG barge of a 12 Mcm capacity is expected in 2023.

In July 2022, TotalEnergies successfully completed the supply of sustainable marine biofuel for CMA CGM's *Montoir* container ship in Singapore by ship-to-ship transfer with the biofuel supplied by TotalEnergies. This biofuel consisted of very low sulfur fuel oil mixed with 24% second-generation methyl ester made from used cooking oil, derived from waste and ISCC-certified *(International Sustainability & Carbon Certification)*. This transaction marks a new milestone in TotalEnergies' ambition to become a key marine biofuels supplier by 2030.

(1) TotalEnergies data.

#### LUBRICANTS

The lubricants business contributes to TotalEnergies' growth in Asia-Pacific and in the Middle East. The production capacity of lubricants in this area is spread across 10 operated production sites in China, Dubai and Singapore. TotalEnergies has entered regional or global partnerships with numerous car manufacturers and expands into other industries (in particular energy, cement, mining, and textiles).

In June 2021, Great Wall Motor (GWM), one of China's leading automakers, and TotalEnergies signed two agreements to strengthen their partnership through future international commercial collaboration and R&D. With these agreements, both companies reaffirmed their commitment to sustainable growth in the global market and their partnership to develop products and services to best meet their mutual customers expectations.

In September 2021, TotalEnergies and the Badminton World Federation (BWF) announced the renewal of their partnership for 5 years, until 2025. The agreement makes TotalEnergies the official energy and lubricants partner of these events and reinforces the Company's emphasis on customer centricity.

In addition to its presence in e-commerce, TotalEnergies continues to actively develop its digital strategy, in particular through partnerships with innovative Online to Offline (O2O) cloud platforms to expand its products and services offering.

TotalEnergies has developed partnership with major e-commerce players (such as Tuhu in China or Open Bonnet in the United Arab Emirates), to offer new products and services to its customers.

#### COMMERCIAL SALES, MOBILITY AND OTHER SPECIALTIES

TotalEnergies has signed several partnership agreements with industrial customers, enabling its operations' expansion across multiple markets, such as construction and mining, and countries in the region.

In Asia, TotalEnergies provides lubricants and services to approximately 40 mining sites in Australia, Indonesia, Mongolia, New Caledonia, Papua New Guinea, and the Philippines.

In specialty products, TotalEnergies is present in the LPG market in Bangladesh, India, New Caledonia and Vietnam.

In 2020, TotalEnergies and Indian Oil formed an equally owned joint venture in India in specialty bitumens.

### 2.5.5.4 AMERICAS

**In the retail network**, at year-end 2022, TotalEnergies operates nearly 800 Company-branded service stations.

TotalEnergies continues to develop fuels and biofuels distribution activities in Brazil, Latin America's largest market for petroleum products distribution[1]. The network accounts for nearly 240 service stations at year-end 2022.

TotalEnergies remains active in the Caribbean, with a retail network of nearly 550 service stations at year-end 2022.

The retail network activities was interrupted in Mexico effective December 31, 2022.

**In lubricants** and other specialty products, TotalEnergies pursues its growth strategy across the region, mainly in lubricants and aviation fuel.

TotalEnergies maintains three operated lubricants production sites in North America (in Canada, Mexico, and the US) and three more in South America (in Argentina, Brazil and Chile).

**In new energies for mobility**, TotalEnergies is a reference shareholder (19.14% on December 31, 2022) of the US-based, NASDAQ-listed firm Clean Energy Fuels Corp., specialized in the ditribution of natural gas for vehicles. In Canada and the United States, Clean Energy Fuels Corp. has a network of more than 580 NGV service stations at year-end 2022. In 2020, TotalEnergies acquired Platergas, a supplier of LNG for mobility and industry applications in the Dominican Republic.

### 2.5.5.5 ACCESS TO ENERGY

Willing to expand the Company's low carbon offering, TotalEnergies Off-grid Solar Solutions teams develop and market solar solutions across over 30 countries.

The solutions include solar lamps, as well as solar kits (consisting of lamps and accessories such as a radio or television), to meet household needs. The teams have also developed a solar streetlights offer for collective use. These solutions make it possible to provide energy access to populations living in remote areas without a connection or reliable access to the electricity grid, particularly in Africa and Asia. At the same time, the solar solutions TotalEnergies offers, which respect the environment, meet the growing demand for sustainable consumption in the outdoor market.

In 2022, TotalEnergies sold approximately 700,000 solar lamps and solar kits through distributors and its network of service stations. The Company has also become a major supplier of solar solutions to the humanitarian sector. In addition, the teams at TotalEnergies Off-grid Solar Solutions work with partners in Africa to minimize the environmental impact of products through repair and recyclability projects and installed collection and recycling points for batteries.

## 2.5.6 Products and services development

To address the world markets' evolution and prepare for tomorrow's growth opportunities, TotalEnergies develops and deploys products and services with its customers that reduce their energy consumption, such as the EXCELLIUM fuels. Those products and services include a diverse range of energy solutions (fuels, gas, solar power, wood pellets) and services for auditing, monitoring and managing energy consumption.

In line with its customers' request and while prioritizing the reduction and the avoidance of GHGs, TotalEnergies offers carbon offsetting solutions associated with the sale of its fuels or other products, thus contributing to fighting global warming. The Company selects projects (reforestation, prevention of deforestation, development of renewables, etc.) that generate high-quality carbon credits, certified by independent international reference organizations, such as Verified Carbon Standard or Gold Standard. In Germany, for example, 60% of customers buying Premium Thermoplus heating oil have chosen to pay for a supplement to offset their consumption-related carbon footprint. In Belgium and Luxembourg, respectively 10% and 20% of customers buying heating oil have made the same choice.

(1) *Global Fuel Demand Data Manager (2022 report)*, S&P Global.

In addition, by fostering technical partnerships with car and equipment manufacturers, industries and universities, TotalEnergies develops products with a high technological content, with specifications designed to ever increasingly meet sustainable development objectives and reduce $CO_2$ emissions, in addition to performance. These partnerships give rise to product ranges such as *EV Fluids* for new forms of mobility or *Fuel Economy* for historical engine and industrial applications.

In the Automotive field, certain products are first formulated for competition before being widely marketed. In particular, TotalEnergies renewed in 2021 a five-year partnership with Stellantis, focused on lubricants, R&D, motor racing and mobility. TotalEnergies has been supplying lubricants specifically developed for its partner DS Penske team. TotalEnergies has also been an official fuel supplier to the main endurance competitions[(1)] since 2018, including the Le Mans 24 Hours. In March 2022, TotalEnergies introduced a new 100% certified renewable fuel in these FIA championships. This partnership comes in addition to the one dedicated to supplying hydrogen to support the development of a hydrogen powered endurance car for a dedicated category in the 2026 Le Mans 24 Hours race. These partnerships reflect TotalEnergies' technical know-how in formulating fuels and lubricants for tomorrow's engines, operating under extreme conditions while seeking to meet stringent fuel consumption reduction requirements.

TotalEnergies accelerates its digital innovation strategy to develop new offerings suitable for different markets and to improve its operational efficiency.

The metadata collected through Customer Relationship Management aims at developing more efficiently targeted sales offerings and improve the customers claims management process. As a consequence, more than 15 million customers across 24 countries can benefit from personalized offers.

Moreover, in France, business customers can purchase bitumen at a fixed price through the TotalEnergies "Bitume Online" platform. This offer is expected to be rolled out in other European countries in 2023.

M&S also continues researching and implementing IoT[(2)] applications in fields such as logistics, maintenance and safety, to geolocate trailers and industrial equipment, as well as to track deliveries for TotalEnergies' carrier customers.

(1) The FIA World Endurance Championship, Le Mans 24 Hour race, the European Le Mans Series and the Asian Le Mans Series.
(2) The Internet of Things: connected objects.

# 3

# Risks and control

# 3.1 Risk factors

TotalEnergies conducts its business in a constantly changing environment and is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, reputation, outlook, or the price of financial instruments issued by TotalEnergies SE.

This section presents the significant risk factors specific to TotalEnergies, to which the Company believes it is exposed at the filing date of the Universal Registration Document. However, TotalEnergies may be exposed to other non-specific risks, or risks of which it may not be aware, or the potential consequences of which may be underestimated, or the materialization of which is not considered, at that date, likely to have a material adverse impact on TotalEnergies, its business, financial condition, reputation or outlook.

In particular, TotalEnergies could be exposed to systemic risks, such as unexpected major disruptions (health, such as the COVID-19 pandemic, security, monetary or cyber), leading to large-scale disturbances with global human and economic repercussions.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

The main internal control and risk management procedures implemented by TotalEnergies are described in point 3.3 of this chapter.

## 3.1.1 Climate challenges

### PACE OF DEPLOYMENT OF THE ENERGY TRANSITION, EVOLUTION OF DEMAND

**TotalEnergies is exposed to the implementation of the energy transition, particularly by States, and to the evolution of demand**

The COP 27, that took place in Charm el-Cheikh (Egypt) in November 2022, reaffirmed the objective to limit global warming and called the Parties to accelerate the energy transition, while underlining the challenges raised by the current geopolitical situation and the aspirations of the developing countries.

Civil society, numerous stakeholders and States are encouraging reductions in the consumption of carbon-based energy products and the establishment of an energy mix more geared towards low-carbon energies, so as to meet the requirements of the fight against the climate change, particularly in view of the objectives set by each State in the context of the Paris Agreement.

The pace of change in the energy mix of countries must, however, take into consideration the needs and ability to adapt of the various energy consumers, who expect energy players to supply them with energy that is both cost-effective and environmentally friendly.

In this context, companies in the energy sector are led to deploy actions aiming at reducing their greenhouse gas emissions. They will also be able to help create solutions that contribute to reducing the $CO_2$ emissions associated with the customers' use of their energy products, as well as technologies and processes to capture, store and reuse $CO_2$. Consequently, they may be led to change the energy mix of the products they offer while at the same time having to manage the cost and the execution of projects supporting the energy transition.

An insufficient ability to adapt to the pace of deployment of the energy transition, as well as an inadequate anticipation of the climate or sustainability regulations, of the evolution of the demand or of the energy cost to be effectively borne by the populations, could affect TotalEnergies' outlook as well as its financial position (lower profitability, loss of operating rights, loss of revenues, increased funding difficulties), reputation or shareholder value

### RISK OF LEGAL ACTIONS

**TotalEnergies is exposed to legal actions**

Increased pressure from stakeholders linked to climate issues relating to oil & gas activities of the Company could lead to future climate-related legal actions against it. These actions could aim to suspend or prohibit oil & gas projects being considered or under development and equally target the challenges linked to greenhouse gas emissions from projects as well as other societal aspects. In a similar way to legal actions launched in France under Duty of Care against the Company or launched against other companies in Europe, these legal actions could target the global emissions of the Company and its stakeholders as well as the objectives set by the Company for reducing its emissions, thereby obliging it to go beyond these objectives or even reduce its production of fossil fuels at a faster rate than envisaged in the current strategy. In both cases these legal actions could have the effect of impeding the Company from achieving its medium and long-term objectives, as well as its ability to finance the energy transition and achieve carbon neutrality by 2050.

### FINANCING OF OIL AND GAS RESERVES

**TotalEnergies' profitability and its capacity to finance the energy transition depend on its ability to finance the development of its reserves profitably and in sufficient quantities**

A large portion of TotalEnergies' revenues and operating results comes from the sale of oil and gas extracted from reserves developed as part of its exploration and production activities. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells is capital intensive and requires advanced technologies.

In order to preserve its profitability and finance its growth levers, TotalEnergies must renew its reserves with reserves that can be developed and produced in an economically viable manner and that are compatible with the Company's climate change ambition (low technical cost, low-emission reserves). Various factors may undermine TotalEnergies' ability to discover, acquire and develop its reserves, which are inherently uncertain, including:

- the geological nature of oil and gas fields, notably unexpected drilling conditions, including pressure or unexpected heterogeneities in geological formations; the risk of dry wells or failure to find sufficient quantities of hydrocarbons for commercial use,
- failure to anticipate market changes in a timely manner,
- applicable governmental or regulatory requirements, whether anticipated or not, that may prevent the development of reserves or give a competitive advantage to companies not subject to such regulations,
- competition from oil and gas companies for the acquisition and development of assets and licenses,
- disputes relating to property titles as well as increases in taxes and royalties, including retroactive claims and changes in regulations and tax reassessments,
- economic or political risks, including threats specific to a certain country or region,
- pressure from investors and non-governmental organizations (NGOs).

These factors may impair TotalEnergies' ability to complete development projects and to make production profitable. They may also affect TotalEnergies' projects and facilities further down the oil and gas chain.

If TotalEnergies failed to develop new reserves cost-effectively and in sufficient quantities, its financial condition, operating income and cash flows could be materially affected.

If TotalEnergies were unable to develop its reserves in an economically viable manner and in accordance with its climate change ambition, TotalEnergies could be required to recognize impairments of assets, which could have a negative impact on its results for the period in which they are recognized. For additional information on impairments recognized on TotalEnergies' assets, please refer to Note 3D to the consolidated financial statements (point 8.7 of chapter 8).

For the calculation of the impairments of its Upstream oil & gas assets, the Company assumes an oil price trajectory stabilizing until 2030, decreasing then linearly to reach $\$_{2022}$50/b in 2040 and decreasing after 2040 towards the price retained in 2050 by the NZE scenario published by the IEA in 2022, *i.e.*, $\$_{2022}$25/b. Gas prices used in Europe and Asia decrease and stabilize as from 2027 until 2040 at levels lower than current price levels, with the Henry Hub price staying at $\$_{2022}$3/MBtu during this timeframe. They all converge thereafter towards the IEA's NZE scenario prices in 2050.

TotalEnergies assessed the impact of using the NZE price scenario published by the IEA in 2022 on the discounted present value of its assets (upstream and downstream). Such a scenario would reduce the discounted present value of the Company's upstream and downstream assets by around 15% compared to its reference scenario used to value its investments (Brent at $50/b).

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

Furthermore, TotalEnergies' proved reserves figures are estimates made in accordance with SEC rules. Proved reserves are those reserves which, by analysis of geoscientific and engineering data, can be estimated with reasonable certainty to be economically recoverable (from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations) prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. They involve making subjective judgments (particularly regarding the quantity of hydrocarbons initially in place, initial production rates and recovery rates) based on available geological, technical and economic data.

TotalEnergies' reserves estimates may therefore require substantial downward revisions should its subjective judgments based on available geoscientific and engineering data prove not to have been sufficiently conservative, or if TotalEnergies' assumptions regarding factors or variables that are beyond its control prove to be incorrect over time. Any downward adjustment could indicate lower future production amounts, which could adversely affect TotalEnergies' financial condition, operating income and cash flow.

### TotalEnergies is exposed to a risk of more difficult access to the financial resources that the Company needs in particular to develop its activities in the oil and gas sectors

The growth and profitability of TotalEnergies depend on its ability to successfully execute development projects that are capital-intensive.

A number of non-governmental organizations tend to increase the number of campaigns targeting investors and financial institutions, to encourage them to reduce their investments in projects or companies related to fossil fuels.

Some of these institutions have adopted policies aimed at restricting the funding of activities related to the exploration, production and marketing of unconventional hydrocarbons (in particular, those from shale or oil sands) or those produced in the Arctic region.

Different actors, including in particular institutional investors and financial institutions, are also adopting investment policies that take account of ESG criteria. The carbon footprint of assets under management may be regulated.

Regulations aimed at guiding investment flows towards sustainable activities, as well as the growing concern of civil society and stakeholders in terms of climate change, could influence investors in their investment choices and make access to external funding more difficult or costly for TotalEnergies or some of its projects.

If TotalEnergies were unable to obtain adequate financing for its activities from investors, notably in the oil and gas sectors, the significant increase in the cost of financing likely to result from this could hinder its ability to undertake projects in satisfactory economic conditions, impair its financial position or shareholder value.

## OPERATIONAL RISKS RELATING TO THE EFFECTS OF CLIMATE CHANGE AND OF EXTREME EVENTS

### The effects of climate change and of extreme events may expose TotalEnergies to a cost increase and a disturbance of the continuity of its activities

Climate change and extreme events (natural catastrophies, pandemics...) potentially have multiple effects that could harm TotalEnergies' operations. The increasing scarcity of water could be detrimental to operations, rising sea levels could harm certain coastal activities, and the proliferation of extreme natural or weather events (such as floods, landslides, etc.) could damage onshore and offshore facilities and/or the associated logistical infrastructures.

All these factors could increase the difficulties to operate, as well as the costs of the facilities and adversely affect TotalEnergies' operating income.

Moreover, climate change can expose TotalEnergies to an increase in its costs. For instance, more and more countries are likely to adopt carbon pricing mechanisms to accelerate the transition to a low-carbon economy, which could have an adverse impact on some of the Company's activities and lead to a loss of competitiveness and a cost increase. In Europe, TotalEnergies' industrial facilities participate in the $CO_2$ emissions trading system (EU-ETS). The financial risk associated with the purchase of these allowances on the market could increase following the reform of the system that was approved in 2018. This emission allowance market entered its fourth phase in 2021. TotalEnergies estimates that approximately 30% of the emissions in the EU-ETS scope will not be covered by free allowances over the period from 2021 to 2030 (phase 4). At the end of 2022, the price of these allowances was about €80/t $CO_2$, and TotalEnergies estimates that this price could reach more than €100/t $CO_2$ in phase 4.

TotalEnergies takes into account a minimum $CO_2$ price of $100/t (or the current price of a given country, if higher) and beyond 2028, this $CO_2$ price is inflated by 2%/year. On the assumption that this $CO_2$ price would be at $200/t, then inflated by 2%/year beyond 2028, *i.e.*, an increase of $100/t compared to the base scenario from this date, TotalEnergies estimates a negative impact of 15% on the discounted present value of all the Company's assets (upstream and downstream).

## REPUTATIONAL RISK

**TotalEnergies is exposed to a reputational and media scrutiny risk that can damage its reputation**

The attention of many stakeholders to major industrial groups is increasing, particularly given the challenges of climate change and the support needed to be put in place in a responsible manner for a just transition. As a major energy player, TotalEnergies faces media scrutiny, mainly from NGOs. This is magnified through the use of social networks.

If TotalEnergies were not in a position to adequately address the concerns of its stakeholders, the public image of the Company and its reputation could be negatively impacted. Hence, the relationships with its counterparties could be affected, its access to markets and its growth could be limited and its financial condition or the price of the TotalEnergies shares could be adversely impacted.

## RISK OF SKILL MANAGEMENT AND EVOLUTION OF THE PROFESSIONS

**TotalEnergies could face difficulties recruiting talents and retaining people with the key skills required in the context of its transformation**

Maintaining the long-term employability of employees is one of the Company's social challenges and is one of the key factors in the success of the company's project, in the context of a just transition. Deploying the strategy of transforming the Company into a multi-energy company requires supporting employees in their skills development and creating bridges between the current business lines and the renewable energy or electricity business lines, in order to have the key skills available at the pace of the transformation.

In addition, employees and new generations expect companies to be committed to environmental and climate issues and to well-being in the workplace. These expectations could materialize both in the recruitment process and during careers. Moreover, increased competition with fast-growing high technology sectors such as information technology and new energies can make the recruitment and retention of certain key skills more complex.

If TotalEnergies were unable to appropriately address these social challenges, it could face difficulties building the teams required to achieve its transformation.

# 3.1.2 Market environment parameters

## SENSITIVITY OF RESULTS TO OIL AND GAS PRICES, REFINING MARGINS, EXCHANGE RATES AND INTEREST RATES

**The results of TotalEnergies are sensitive to various market environment parameters, the most significant being oil and gas prices, refining margins, exchange rates and interest rates**

Prices for oil and natural gas may fluctuate widely due to many factors over which TotalEnergies has no control. These factors include:

- international and regional economic and political developments in natural resource-producing regions, particularly in the Middle East, Africa, South America and Russia; along with the security situation in certain regions, the magnitude of international terrorist threats, wars or other conflicts,
- the ability of OPEC and other producing nations to influence global oil and gas production levels and prices,
- prices of unconventional energy as well as evolving approaches for developing oil sands and shale oil, which may affect TotalEnergies' selling prices, particularly in the context of its long-term gas sales contracts, and the valuation of its assets, particularly in North America,
- global economic and financial market conditions,
- regulations and governmental actions,
- variations in global and regional supply of and demand for energy due to changes in consumer preferences or to pandemics such as the COVID-19 pandemic.

Generally, a decline in oil and gas prices has a negative effect on TotalEnergies' results due to a decrease in revenues from oil and gas production. Conversely, a rise in oil and gas prices generally has a positive effect on TotalEnergies' results.

In addition to the adverse effect on revenues, margins and profitability of TotalEnergies, a prolonged period of low oil or natural gas prices may lead TotalEnergies to review its development projects, adjust its reported reserves, and revise the price assumptions on which asset impairment tests are based, which could have an adverse effect on its results for the period in which they occur. For additional information on impairments recognized on TotalEnergies' assets, refer to Note 3D to the consolidated financial statements (point 8.7 of chapter 8).

Prolonged periods of low oil and natural gas prices may reduce the economic viability of projects in production or in development and reduce TotalEnergies' liquidity, thereby limiting its ability to finance capital expenditure and/or causing it to cancel or postpone investment projects.

Conversely, in a high oil and gas price environment, TotalEnergies may experience significant increases in costs and government withholdings, and, under some production-sharing contracts, may see its production rights reduced. An increase in prices can also lead to a fall in demand for TotalEnergies' products.

The results of the Refining & Chemicals and Marketing & Services segments are primarily dependent on the supply of and demand for petroleum products and the margins on sales of these products, with a strong dependence on the transportation sector. Changes in oil and gas prices affect results in these segments, depending on the speed at which the prices of petroleum products adjust to reflect movements in oil and gas prices. In a context of strong market tensions in relation to, notably, the prohibition of crude oil or oil product imports from Russia, TotalEnergies' refining margins have reached exceptionally high levels in 2022, despite the rise in energy costs. The margins, nonetheless, continue to be characterized by high volatility.

The activities of trading and shipping (oil, gas and power trading and maritime transportation) are particularly sensitive to market risks and more specifically to price risks resulting from the volatility of oil, gas and electricity prices, to liquidity risk (inability to buy or sell cargoes at market prices) and to counterparty risks (when a counterparty does not fulfill its contractual obligations).

The military aggression against Ukraine by Russia in February 2022 and its consequences have increased oil prices above 100$/b, amplifying the bullish trend noted since the second Semester 2021, in relation to a lack of investment in hydrocarbons. They have remained at high levels over the full fiscal year, notably supported by the decision of the OPEP+ countries to decrease the production quotas, as well as by the anticipation of the implementation of the European sanction on Russia oil, since 5 December 2022.

Gas prices in Europe (NBP[1]) and Asia (JKM[2]) reached historical levels in 2022, with a very strong volatility throughout the year, impacted by the necessity to replace Russian gas imports in Europe whereas the LNG and gas production remain restricted globally.

Electricity demand has experienced a significant rebound since 2010, with global growth of around 6% in 2021[3]. Wholesale prices have risen sharply in some countries, driven by gas, coal and $CO_2$ prices, particularly in Europe.

The oil and gas markets continue to be characterized by high volatility.

**For fiscal year 2023,** in the retained scenarios applied below, TotalEnergies estimates that a change of $10 per barrel in the average annual liquids selling price would lead to a change of approximately $2.5 billion in the same direction in adjusted net operating income[4] for the year and of approximately $3.0 billion in the operating cash flow before working capital changes[5] for the year. In addition, TotalEnergies estimates that a change in the average annual European gas sale price - NBP/TTF of $2 per Mbtu would result in a change in the same direction in the adjusted net operating income for the year and in the operating cash flow before working capital changes of approximately $0.4 billion.

The impact of changes in crude oil and gas prices on downstream operations depends on the speed at which the prices of finished products adjust to reflect these changes. TotalEnergies estimates that a change in the variable cost margin indicator – European refining (VCM) of $10 per metric ton would lead to changes of approximately $0.4 billion in the same direction in adjusted net operating income for the year and of approximately $0.5 billion in operating cash flow before working capital changes for the year.

All TotalEnergies' activities are, for various reasons and to varying degrees, sensitive to fluctuations in the dollar exchange rate. TotalEnergies estimates that a year-on-year decrease of $0.10 per euro (strengthening of the dollar against the euro) would increase annual adjusted net operating income by approximately $0.1 billion and would have a limited impact on the operating cash flow before working capital change for the year. Conversely, a year-on-year increase of $0.10 per euro (weakening of the dollar against the euro) would decrease adjusted net operating income for the year by approximately $0.1 billion and would have a limited impact on operating cash flow before working capital change for the year.

| Sensitivities 2023[(a)] | Change | Estimated impact on adjusted net operating income[(6)] | Estimated impact on operating cash flow before working capital |
|---|---|---|---|
| Dollar | +/- $0.1 per € | -/+ $0.1 B | ~ $0 B |
| Average liquids sales price[(b)] | +/- $10/b | +/- $2.5 B | +/- $3.0 B |
| European gas price - NBP / TTE | +/- $2/MBtu | +/- $0.4 B | +/- $0.4 B |
| Variable cost margin – European refining, VCM | +/- $10/t | +/- $0.4 B | +/- $0.5 B |

(a) Sensitivities are revised once per year upon publication of the previous year's fourth quarter results. Sensitivities are estimates based on assumptions about TotalEnergies' portfolio in 2023. Actual results could vary significantly from estimates based on the application of these sensitivities. The impact of the $-€ sensitivity on adjusted net operating income is essentially attributable to Refining & Chemicals.

(b) Brent environment at $80/b.

The revision of the sensitivities over 2023 of adjusted net operating income and operating cash flow before working capital took into account in particular the Energy Profit Levy in the United Kingdom and the deconsolidation of the investment in PAO Novatek.

In addition, as part of its financing, TotalEnergies is exposed to fluctuations in interest rates. Based on its portfolio of bond debt, short-term debt securities ("commercial paper"), and drawn credit lines incurred at the level of the Company's central financing entities, TotalEnergies' floating rate debt (after taking into account hedging instruments) was approximately $18.7 billion on average over the course of 2022. Within this perimeter, a fluctuation in the various reference rates, mainly the USD 3-month LIBOR rate or the SOFR, of +/- 1% would have resulted in a variation in the cost of debt, the theoretical impact of which on TotalEnergies' adjusted net income and cash flows is estimated at approximately -/+ $0.2 billion.

## 3.1.3 Risk relating to external threats

### CYBERSECURITY RISKS

**TotalEnergies is exposed to malicious acts that may permanently paralyze its information systems or cause losses of sensitive data**

The very fast evolution of cyberthreats exposes TotalEnergies' IT systems and requires a dynamic and proactive management of Cybersecurity.

In the current geopolitical context of strong tensions, cyberattacks constitute significant means of destabilization. Moreover, organized crime continues to multiply cyberattacks that are more and more sophisticated and targeted at large companies, in order to maximize profits. As a major economic actor, the Company is a potential target.

(1) NBP (National Balancing Point) is a virtual natural gas trading point in the United Kingdom for transferring rights in respect of physical gas and which is widely used as a price benchmark for the natural gas markets in Europe. NBP is operated by National Grid Gas plc, the operator of the UK transmission network.
(2) JKM (Japan-Korea Marker) measures spot LNG trading prices in Asia. It is based on the prices reported in spot market trades and/or bids and offers of LNG collected after the close of the Asian trading day at 16:30 Singapore time.
(3) Source: IEA, January 2022.
(4) Adjusted results are defined as income at replacement cost, excluding non-recurring items and the impact of changes in fair value.
(5) Operating cash flow before working capital changes, is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020). The inventory valuation effect is explained in note 3 to the consolidated financial statements (refer to point 8.7 of chapter 8).
(6) Adjusted results are defined as income at replacement cost, excluding non-recurring items and the impact of changes in fair value.

In 2022, several million attacks were blocked by the Company's IT defense systems and several thousands required the intervention of TotalEnergies' technical teams.

Ransomwares have become one of the biggest threats. They are notably used in cyberattacks targeting the suppliers of large companies, sometimes less protected but benefitting from legitimate access to the IT systems of their clients. Moreover, numerous factors associated with the digital transformation increase the exposure and vulnerability of TotalEnergies' IT systems. The adoption of new technologies such as the Internet of Things, the migration to the Cloud, remote working or changes in technical architectures that favor system interconnectivity are factors that increase the range of attacks of the TotalEnergies IT systems.

If TotalEnergies and its service providers were unable to preserve the integrity of its information systems and sensitive data, TotalEnergies' activities and assets could be affected, services could be interrupted, protected intellectual property rights could be usurped or stolen, and in some cases, personal injury, property damage, environmental harm and regulatory violations could occur, and could have an adverse effect on the financial condition and the reputation of the Company, as well as its exposure to legal proceedings.

#### SECURITY RISKS

**TotalEnergies is exposed to risks that may jeopardize the security of its personnel, operations and facilities, which may result from acts of malice, violence, terrorism or armed conflicts**

In addition to armed conflicts in certain regions or countries where TotalEnergies operates, political, economic and social instability may favor the emergence of acts of malice, violence or terrorism, either by isolated individuals or by more or less organized groups.

TotalEnergies and its partners may therefore be exposed to direct or collateral risks that may jeopardize the safety of their personnel, operations and facilities (plants, industrial or operational sites, transport systems). In particular, major industrial accidents could result.

Depending on their scale, these acts of malice, violence, terrorism or armed conflicts, could cause damage to people, property and/or the environment, detrimental to TotalEnergies' operating income, financial situation, and reputation.

## 3.1.4 Geopolitics and developments in the world

#### PROTECTIONIST MEASURES AFFECTING FREE TRADE AND ECONOMIC SANCTIONS REGIMES

**The development of protectionist measures affecting free trade between nations may have an impact on TotalEnergies' business, its strategy or its financial condition**

Against a backdrop of increased geopolitical tensions and of risks of deglobalization and fragmentation between nations in the form of protectionist measures, trade tensions between certain countries contribute to restricting the free trade of goods and services, financial flows, along with international transfers of labor or knowledge.

These tensions, particularly when they require the modification to the contractual framework of partnerships or the operating conditions of projects, are likely to have a negative impact on TotalEnergies' business and its operating income. If TotalEnergies were unable to manage the impacts of these commercial tensions in an appropriate manner, it would potentially incur significant increases in costs for the development of its projects, lose markets, see its production or the value of its assets fall, which could adversely affect its financial situation.

**TotalEnergies also faces an increased risk of the imposition of international economic sanctions, as well as a tightening of regulations relating to export controls**

Economic sanction regimes, combined with export controls, can target those countries in which TotalEnergies operates, and thus restrict certain types of financing or access to critical technologies, impose restrictions on the import, export or re-export of a number of goods and services, and hinder TotalEnergies' ability to continue its operations. In certain situations, the economic sanctions multiply without being necessarily coordinated at the international level.

In addition to particularly heavy financial sanctions, the breaching of economic sanction regimes adopted by the United States may lead the authorities to impose measures that freeze companies out of the US market, such as a ban on using the US dollar, the currency in which most of TotalEnergies' financings are denominated.

The international economic sanction regimes are described in point 3.2 of this chapter, notably against Russia that were reinforced in the context of the invasion of Ukraine by Russia. The impact of the situation in Russia is detailed in point 1.10.3 of chapter 1.

#### DETERIORATION OF OPERATING CONDITIONS

**TotalEnergies is exposed to risks related to adverse changes in operating conditions in some geographical areas or strategic countries**

A substantial part of TotalEnergies' activities is located in strategic geographical areas or countries that may face conditions of political, geopolitical, social and/or economic instability. Some of these countries or areas have experienced such situations of instability in recent years, to varying degrees. Whether these conditions appear alone or in combination, they could disrupt TotalEnergies' economic and commercial activities in the countries or geographical areas concerned. In addition, the occurrence of epidemics or pandemics may significantly affect the operating conditions of certain projects or even delay their execution.

In Africa (excluding North Africa), which accounts for 17% of TotalEnergies' 2022 oil and gas production, some of these situations of political, social and/or economic instability arose in countries where TotalEnergies has production, notably in Nigeria, which is one of the main contributing countries to TotalEnergies' production (refer to point 2.3.3 of chapter 2). In the north of Mozambique, given the evolution of the security situation in the Cabo Delgado province where the Mozambique LNG project is being developed, TotalEnergies confirmed on April 26, 2021 the withdrawal of all Mozambique LNG personnel from the Afungi site. This situation led TotalEnergies, as the operator, to declare force majeure.

In the Middle East and North Africa, which accounted for 25% of TotalEnergies' 2022 oil and gas production, some countries are the setting for political instability that could be associated with violent conflicts and terrorist acts, such as in Libya and Iraq. In Yemen, which is in a state of civil war, the deterioration of security conditions in the vicinity of the Balhaf site caused Yemen LNG, in which TotalEnergies holds an interest of 39.62%, to stop its commercial production and export of LNG and to declare force majeure to its various stakeholders in 2015. The plant has been put in preservation mode.

In South America, which accounted for 9% of TotalEnergies' 2022 oil and gas production, several countries in which TotalEnergies has production have recently experienced political or economic instability, notably Argentina and Venezuela, a country in which TotalEnergies finalized the sale of its last assets in August 2022 (refer to point 3.2.1).

In Asia-Pacific, TotalEnergies announced on July 20, 2022 its final withdrawal from Myanmar, repeating its condemnation of the abuses and human rights violations taking place in this country and reaffirming its support to the people of Myanmar (refer to point 2.2.3.3 of chapter 2).

The occurrence and scale of incidents related to political, geopolitical, economic, health or social instability in certain strategic geographical areas or countries may be unpredictable. Such incidents are likely to adversely affect operating conditions, generate cost increases and lead to a significant declines in production, delays in and even halting of certain projects, or the loss of market shares. Such incidents may also expose employees and jeopardize their safety, as well as that of TotalEnergies' facilities. These risks may have an adverse impact on TotalEnergies' operating income and financial condition.

## REGULATORY DEVELOPMENTS

**The increasing number of regulations, and the constant developments, whether anticipated or not, in the legal and tax frameworks in countries where TotalEnergies operates, may have significant operational and financial effects, jeopardize TotalEnergies' business model and affect the conduct of its business and its financial conditions, especially given the size of TotalEnergies and its international dimension**

Conducting its activities in close to 130 countries throughout the world, TotalEnergies is subject to increasingly numerous, complex and restrictive laws and regulations, particularly regarding health, safety and the environment, as well as business ethics, which generate significant compliance costs. In Europe and the United States, TotalEnergies' sites and products are subject to increasingly stringent laws governing the protection of the environment (water, air, soil, noise, protection of nature, waste management and impact assessments, etc.), health (occupational safety and chemical product risk, etc.), the safety of personnel and residents, product quality and consumer protection.

In some jurisdictions, the legal and fiscal framework of operations may be changed unexpectedly. The application of rights, including contractual rights, may prove uncertain and the economics of projects called into question. The legal and fiscal framework of TotalEnergies' activities, in particular regarding exploration and production, established through concessions, licenses, permits and contracts granted by or entered into with a government entity, a state-owned company or private owners, remains exposed to risks of renegotiation that, in certain cases, can reduce or call into question the protections offered by the initial legal framework and/or the economic benefit to TotalEnergies.

In recent years, in various regions of the world, TotalEnergies has seen governments and state-owned companies impose more stringent conditions on companies pursuing exploration and production activities, increasing the costs and uncertainties of TotalEnergies' business operations. This trend is expected to continue.

Government intervention in such countries, which is likely to increase, may concern various areas, such as:

- the award or denial of mining rights regarding exploration and production interests,
- the imposition of specific drilling obligations,
- price and/or production quota controls and export limits,
- nationalization or expropriation of assets,
- unilateral cancellation or modification of license or contract rights,
- increases in taxes and royalties, including retroactive claims and changes in regulations and tax reassessments and implementation of new mechanisms of taxation,
- the renegotiation of contracts,
- the imposition of increased local content requirements,
- payment delays, and
- currency exchange restrictions or currency devaluation.

The development of TotalEnergies' new energy activities and those in the electricity sector also expose it to new, essentially local regulations which may change at an unexpected pace.

The increasing number of legal and tax regulations, which are sometimes not very compatible with one another, and the constant changes, whether anticipated or not, in legal and fiscal frameworks in the countries in which TotalEnergies operates create legal instability, which heightens the risk of legal proceedings and promotes an increase in the number of national or transnational disputes. They may have the effect of causing a material increase in tax withholdings and customs duties, as well as costs relating to operations, thus affecting the profitability of projects or the economic value of a number of TotalEnergies assets, or even oblige TotalEnergies to shorten, change and/or stop certain activities or to implement temporary or permanent site closures.

If TotalEnergies were unable to anticipate changes in regulations and legal and tax frameworks or comply with them in time in one or more countries in which it operates, TotalEnergies could face increased litigation, be forced to modify and/or stop some of its activities, which could lead to a downturn in the profitability of certain projects and adversely affect its financial condition and reputation.

## 3.1.5 Risks relating to operations

### HSE: RISK OF MAJOR ACCIDENT OR DAMAGE TO THIRD PARTIES AND THE ENVIRONMENT

**TotalEnergies' activities entail multiple operational risks such as the risk of a major industrial accident, or damage to third parties or to the environment**

TotalEnergies must face the risk of a major industrial accident both at its sites and during transport (by sea or land), or during activities related to its operations.

TotalEnergies' upstream activities are exposed, during drilling and production operations, to risks related to the properties of oil and gas fields, which can cause blow outs, explosions, fires or other events in particular to the environment, and can lead to a disruption or interruption of TotalEnergies' operations and limit its production. The activities of the Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services business segments are also subject to the risk of a major industrial accident such as fires, explosions, significant damage to the environment, as well as risks related to the overall life cycle of the products manufactured, and the materials used. In addition to its drilling and pipeline transport operations, TotalEnergies had identified, at year-end 2022, 185 sites and operating zones more exposed to significant industrial accidents, given the quantity and potential nocivity of the products used, and to damages to persons, goods and the environment.

The conduct of TotalEnergies' activities, and the nature of some of the products sold, may also entail risks of direct and repeated exposure which have longer-term effects on health and the environment (soil, air, water).

TotalEnergies' entities and their legal representatives may be exposed to legal proceedings, notably in the event of damage to human life, bodily injury and material damage, chronic damage to health and environmental damage. Such proceedings could also damage TotalEnergies' reputation.

The crisis management plans implemented at TotalEnergies level and at subsidiary level to cope with emergency situations may not make it possible to minimize the impacts on third parties, health or the environment, or exclude the risk that TotalEnergies' business and operations may be severely disrupted in a crisis situation. An inability for TotalEnergies to resume its activities in a timely manner could prolong the impact of any disruption and thus could have an adverse effect on its financial condition.

TotalEnergies is not insured against all potential risks, and if a major industrial accident were to occur, TotalEnergies' liability could exceed the maximum coverage provided by its third-party liability insurance. TotalEnergies cannot guarantee that it will not suffer any uninsured loss, and there can be no guarantee that such loss would not have an adverse effect on TotalEnergies' financial condition and its reputation (refer to point 3.4).

### DEVELOPMENT OF MAJOR PROJECTS

**TotalEnergies' energy production growth and profitability depend on the delivery of its major development projects**

TotalEnergies is engaged in a significant number of major development projects in the upstream segment, like in Uganda or Mozambique, or in the low carbon energies, in particular offshore wind.

Growth of energy production and profitability of TotalEnergies rely heavily on the successful execution of those major development projects that are increasingly complex and capital-intensive. These major projects may be affected by the occurrence of a number of difficulties, including, in particular, those related to:

- the requirements of stakeholders in terms of CSR,
- economic or political risks, including threats specific to a certain country or region, such as terrorism, social unrest or other conflicts,
- negotiations with partners, governments, local communities, suppliers, customers and other third parties,
- obtaining project financing,
- controlling capital and operating costs,
- earning an adequate return in a low price environment (oil, gas and energy prices, etc.),
- respecting project schedules,
- difficulties in supplying the necessary goods and services, and
- the timely issuance or renewal of permits and licenses by public agencies.

Failure to deliver any major project that underpins TotalEnergies' energy production or its growth could have a material adverse effect on TotalEnergies' financial condition.

### BUSINESS ETHICS

**Ethical misconduct or non-compliance of TotalEnergies, its employees or third parties acting in its name and/or on its behalf with applicable laws and regulations in particular concerning corruption or fraud may expose TotalEnergies to criminal and civil proceedings and be damaging to its reputation and shareholder value**

In the energy sector, generally considered as strategic, where the amounts invested can be very considerable, governments and public authorities are the leading counterparties. TotalEnergies is present in close to 130 countries, some of which have a high perceived level of corruption according to the index established by Transparency International. TotalEnergies advocates a zero tolerance principle for fraud of any kind, particularly corruption and influence peddling.

Non-compliance with laws and regulations as well as ethical or human rights misconduct by TotalEnergies, its employees or a third party acting on its behalf could expose TotalEnergies and/or its employees to investigations, administrative or legal proceedings, criminal and civil sanctions and to additional penalties (such as debarment from public procurement). Further measures could, depending on applicable legislation (notably the US Foreign Corrupt Practices Act, the French law No. 2016-1691 dated December 9, 2016, relating to transparency, the fight against corruption and the modernization of the economy or Regulation (EU) 2016/679 relating to the protection of personal data), be imposed by competent authorities, such as the review and reinforcement of the compliance program under the supervision of an independent third party. Any of the above may be damaging to the financial condition, shareholder value or reputation of TotalEnergies (also refer to point 3.6).

## INTEGRATION OF STRATEGIC ACQUISITIONS

**The addition of an asset or company that presents a strategic interest for TotalEnergies may not produce the effects initially expected**

TotalEnergies has made and may make further acquisitions in various geographical markets, in various activities, and with companies of various sizes, in particular in the low carbon energies sector.

Acquisitions made by TotalEnergies stood at a total of $5.9 billion in 2022, notably with the strategic acquisition of 50% of the Clearway Energy Group company, a leading US renewable energy player.

Acquisitions present many challenges (synergies, governance, operating model, key employees, sufficient availability of TotalEnergies' teams) and require specific adaptation on a case-by-case basis.

If TotalEnergies were to be unable to integrate the assets acquired under the planned conditions, so as to achieve the expected synergies, to retain the key employees of the newly acquired company, or if TotalEnergies had to bear liabilities that were not yet identified or appropriately assessed at the time of the transaction, then TotalEnergies' financial condition and reputation could be adversely affected.

## SUPPLY CHAIN MANAGEMENT

**TotalEnergies faces various risks related to its supply chain management**

TotalEnergies' supply chain is especially wide, with a network of over 100,000 suppliers of goods and services over more than 150 countries.

TotalEnergies is exposed to various risks in the management of its supply chain, in particular in a context of geopolitical tensions or pandemics (confinement measures or closure of borders) impacting a geographical area or a country representing, for the Company, a significant source of supply.

Disruptions or interruption of its supply chain (e.g.: insufficient inventories, unavailability of raw materials, lack of personnel, transport difficulties, suppliers' vulnerabilities in financial and cybersecurity terms) can lead of an increase in costs and/or delays impacting the continuation of certain activities or projects.

TotalEnergies may also be exposed if a supplier fails to comply with the Company's regulations or requirements, particularly with respect to ESG.

If the Company did not ensure that its supply chain is sufficiently diversified, or did not select suppliers in adequation with its requirements, TotalEnergies could be negatively impacted on the management of its operations or projects, its financial condition and its reputation.

## EXPOSURE TO PARTNERSHIPS

**TotalEnergies could inadequately manage or anticipate the multiplication and diversification of the partnerships that it implements for its activities**

Almost all upstream projects and an increasing number of projects undertaken by TotalEnergies' other business segments, are carried out through partnerships (including joint ventures) in all of the areas in which the Company operates. In some countries, specifically in Africa, legislation and/or the authorities make TotalEnergies' presence conditional on the establishment of a joint venture with a local company. Some partnerships include companies exposed to specific risks linked to the financial markets as with Clearway Energy or Adani Group.

A partnership's success depends on many factors, primarily the quality of the partner (specifically technical skills and financial capacity), the quality of agreements negotiated, and the efficiency of the governance framework implemented. Inappropriate or incomplete contractual agreements, or a partner's breaching of its obligations, specifically those that are financial, legal or ethical, may harm or prevent the development of projects, give rise to disputes and damage TotalEnergies' reputation.

Projects developed in partnership may be operated by TotalEnergies, by the partners, or by joint ventures set up for this purpose in the form of a company or via contractual agreements. In cases where TotalEnergies' companies are not operators, these companies may have limited influence over, and control of, the behavior, performance and costs of the partnership, and their ability to manage risks may be limited. Even when they are not operators, TotalEnergies companies may be sued by the authorities or by plaintiffs.

If the Company did not choose high-quality partners or failed to manage its partnerships in an optimum way or to establish an appropriate governance framework, TotalEnergies could suffer profitability losses at the level of its projects, be obliged to incur costs in relation to potential litigation and face the risk of damage to its reputation.

## 3.1.6 Innovation

### TECHNOLOGICAL DEVELOPMENTS AND DIGITAL TRANSFORMATION

**TotalEnergies could fail to anticipate appropriately the technological changes related to its main markets, the expectations of its customers and changes in its competitive environment or in certain business models, or its ambition of carbon neutrality in 2050 and its commitment for sustainable development or may not respond to them in an appropriate way and at an appropriate pace**

TotalEnergies' activities are carried out in a constantly changing environment with new products, new players, new business models, new technologies and new climate challenges. TotalEnergies must anticipate these changes, understand the market's challenges, identify and integrate technological developments in order to maintain its competitiveness, maintain a high level of performance and operational excellence, best meet the needs and demands of its customers and prepare for the future while integrating the climate and sustainable developments challenges. TotalEnergies' innovation policy requires significant investments, notably in R&D, the expected benefits of which cannot be guaranteed.

An unsuitable pace of innovation or a technological or market development that is unforeseen or uncontrolled could have a negative effect on TotalEnergies' market shares, its profitability, its reputation, and its ability to attract the necessary human resources.

**TotalEnergies could be unable to manage its digital transformation at a suitable pace, or on the right scale, which could have an impact on its business model, its organization, its competitiveness, its climate plan and the sustainable development commitments**

Across the entire value chain, digital transformation acts on the interaction between TotalEnergies and its markets. TotalEnergies seeks to benefit from digital technology to improve its industrial operations, in terms of availability, costs or performance, to offer new services to customers notably in the area of managing and optimizing energy consumption, to develop in new decentralized and decarbonized energies, and to reduce its environmental impact. TotalEnergies also seeks to integrate digital technology into its operations so as to improve their efficiency and enable activities and investments to be managed with enhanced performance and agility.

An insufficient pace or capacity to tailor TotalEnergies' organization and skills to the digital transformation could have a negative effect on its financial condition, its reputation, and on its ability to attract and train the necessary human resources.

## 3.2 Countries under economic sanctions

Economic sanctions or other restrictive measures could target countries, such as Cuba, Iran, and Syria and/or target actors or economic sectors, such as in Russia or in Venezuela.

US and European economic sanctions applicable to the activities of TotalEnergies and information concerning TotalEnergies' activities related to certain targeted countries are set forth in points 3.2.1 and 3.2.2, respectively.

### 3.2.1 US and European economic sanctions

TotalEnergies closely monitors the different applicable economic sanctions regimes, including those adopted by the United States and the European Union ("EU") (collectively, the "Sanctions Regimes"), their developments and potential impacts on the Company's activities.

TotalEnergies takes the necessary steps to ensure compliance with applicable Sanctions Regimes and believes that its current activities in targeted countries do not infringe the applicable Sanctions Regimes. However, TotalEnergies cannot guarantee that current or future regulations related to Sanctions Regimes will not have a negative impact on its business, financial condition or reputation. A violation by the Company's affiliates of applicable Sanctions Regimes could result in criminal, civil and/or material financial penalties.

#### A) Cuba

The United States imposes a sanctions regime against Cuba that prohibits, in general, any US person[(1)] from engaging, directly or indirectly, in any dealings or activities related to Cuba.

TotalEnergies held an interest in a liquefied petroleum gas (LPG) cylinder filing plant in Cuba since 1997, in accordance with the economic sanctions regime imposed by the United States. The sale of its interest was effective on January 6, 2022. As of such date, TotalEnergies no longer has any assets or operations in Cuba.

#### B) Iran

Several countries and international organizations, including the United States and the EU, apply Sanctions Regimes of varying degrees targeting Iran.

On July 14, 2015, the EU, China, France, Russia, the United Kingdom, the United States and Germany entered into an agreement with Iran, known as the Joint Comprehensive Plan of Action (the "JCPOA"), regarding limits on Iran's nuclear activities and relief under certain US, EU and U.N. economic sanctions regarding Iran. Therefore, as from that date, U.N. economic sanctions, most US secondary sanctions (i.e., those covering non-US persons for activities outside US jurisdiction) and most EU economic sanctions were suspended[(2)].

Following the withdrawal of the United States from the JCPOA in May 2018, US secondary sanctions concerning the oil industry were re-imposed as of November 5, 2018.

In July 2017, TotalEnergies signed a contract for a period of 20 years with the National Iranian Oil Company ("NIOC") relating to the development and production of phase 11 (SP11)[(3)] of the giant South Pars gas field. TotalEnergies withdrew from this project and finalized its withdrawal on October 29, 2018. TotalEnergies ceased all operational activity in Iran before November 4, 2018. TotalEnergies has had no operational activity in Iran since the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Refer to point 3.2.2 below for information concerning Section 13(r) of the Securities Exchange Act of 1934, as amended, pertaining to activities related to Iran carried out by TotalEnergies in 2022.

#### C) Russia

Since July 2014, further to the annexation by Russia of Crimea and Sevastopol, Sanctions Regimes have been adopted against Russia, including prohibitions on transacting or dealing with certain Russian individuals and entities, as well as restrictions on investments, financings, exports and the re-exportation of certain goods towards Russia.

Since the end of February 2022, Russia's invasion of Ukraine led European and American authorities to adopt several new sets of sanctions against Russia and Belarus within their Sanctions Regimes. These sanctions provide for the freezing of assets within the EU or the United States of certain number of Russian and Belarusian individuals and entities and a prohibition to make funds or economic resources available, or in regard of the US sanctions, dealing with or for *US persons*. The Sanctions Regime target also the financial sector including a prohibition on access to the SWIFT system for certain Russian financial institutions. Other sanctions provide for restrictions in certain sectors such as the energy sector and restrictions to export and import for certain types of goods and services, from or to Russia.

Among the different sets of sanctions adopted by the EU, those adopted on March 15, 2022 prohibit in particular to grant any new loans, credits or financing to any entity operating in the energy sector in Russia without, however, prohibiting the payments made pursuant to financing arrangements entered into before these sanctions were enacted. The restrictions and sanctions imposed by the EU authorities against the Russian financial sector make it more difficult for financial flows between Russia and entities and banks established in the European Union to take place. Under the countermeasures enacted by the Russian authorities since February 2022, financial flows to foreign shareholders are subject to the approval of the Ministry of Finance/Russian Central Bank.

(1) "US person" means any US citizen, dual nationality and permanent resident alien wherever located in the world, entity organized under the laws of the United States or any jurisdiction within the United States, including foreign branches, as well as foreign subsidiaries for certain sanctions regimes or any person or entity located in the United States.
(2) Certain US and EU human rights-related and terrorism-related sanctions remain in force.
(3) TotalEnergies was an operator of the SP11 project and held 50.1% alongside with the national Chinese company China National Petroleum Corporation ("CNPC") (30%) and Petropars (19.9%), a wholly-owned subsidiary of NIOC.

On June 3, 2022, the EU authorities adopted sanctions prohibiting the purchase, import or transfer of crude oil and certain petroleum products of Russian origin into the EU as from December 5, 2022 for crude oil and as from February 5, 2023 for oil products. As of today, an exception is foreseen for imports of crude oil by pipeline into those EU member states.

The sanctions adopted by the US authorities since February 2022 have comparable consequences with those adopted by the EU authorities. The US sanctions prohibit the importation into the United States of crude oil, petroleum products and Liquefied Natural Gas (LNG) of Russian origin and prohibits US persons from making or financing new investments in Russian energy projects.

On September 2, 2022, the G7 members[1] announced their joint intention to implement a price cap on Russian-originated crude oil and petroleum products, and to prohibit companies from providing certain services in connection with the marine transportation of crude oil and petroleum products of Russian origin, unless such products are sold at or below the cap price.

Therefore, the EU and the United States have introduced in their respective Sanctions Regimes an exception of the prohibition on trading, brokering and transporting, and providing certain services related to such activities, of Russian crude oil, as of December 5, 2022, or Russian petroleum products, as of February 5, 2023, transported by sea to third countries (outside the EU and outside the United States), when such products are purchased at a price equal to or lower than the price cap. These restrictions do not apply to condensate gas from LNG production from gas fields in Russia. Compliance with the price cap does not affect the prohibition of imports of Russian oil and Russian oil products by sea into the EU and the US, which remain prohibited.

As of the date hereof, the sanctions adopted by the EU authorities do not restrict the ability of PAO Novatek and Yamal LNG, of which TotalEnergies is a minority shareholder, to produce and sell gas, including LNG and condensate gas, nor do they restrict the ability of European buyers (or others, except for *US persons* and UK *persons*) to purchase gas.

More specifically, the EU sanctions adopted since the end of February 2022 have included the designation of one of the minority shareholders of PAO Novatek[2] as sanctioned person (asset freezing). This minority shareholder was already designated under the US sanctions from 2014. In accordance with Sanctions Regimes' rules, these designations however have no impact on PAO Novatek, or on the Yamal LNG and Arctic LNG 2 projects. PAO Novatek is not targeted by EU sanctions, but only by US financial restrictions dating back to 2014, which also apply to OAO Yamal LNG[3] and OOO Arctic LNG 2[4].

Concerning the financing of projects Yamal LNG et Arctic LNG 2, some Russian banks involved in those projects have been targeted by European and/or American sanctions, which have had the effect, depending on the case, of either freezing their assets or blocking the opening or maintenance of accounts or the processing of transactions involving them. TotalEnergies has put in place the necessary measures to comply with the European sanctions, obtaining the required authorizations from the French competent authorities. These sanctions have also led OAO Yamal LNG and/or OOO Arctic LNG 2 to replace the banks targeted by sanctions by other non-sanctioned banks.

When necessary, TotalEnergies has put in place the appropriate measures to comply with the Sanctions Regimes, and/or has obtained the required authorizations from the French competent authorities. An analysis of the impacts for TotalEnergies of the applicable Sanctions Regimes, as well as the Russian countermeasures, is carried out continuously.

TotalEnergies reaffirmed, on several occasions, its firmest condemnation of Russia's military aggression against Ukraine. In order to act in a responsible manner, on March 22, 2022, TotalEnergies publicly shared its principles of conduct for managing its Russian related businesses, and its aim to stop purchasing Russian crude oil and Russian petroleum products as soon as possible, and no later than the end of 2022.

The specific context of **Russia** and its consequences on TotalEnergies are detailed in point 1.10.3 of chapter 1.

### D) Syria

The EU adopted measures in 2011 regarding trade with and investment in Syria that are applicable to European persons and to entities constituted under the laws of an EU Member State, including, notably, a prohibition on the purchase, import or transportation from Syria of crude oil and petroleum products. The United States also has adopted comprehensive measures that broadly prohibit trade and investment in and with Syria.

Since 2011, TotalEnergies ceased its activities that contributed to oil and gas production in Syria and has not purchased hydrocarbons from Syria since that time (refer to point 3.2.2 of this chapter).

### E) Venezuela

Since 2014, different Sanctions Regimes were adopted relating to Venezuela, including measures that prohibit dealings with certain Venezuelan individuals and entities, as well as restrictions on financings.

TotalEnergies, through its subsidiary TotalEnergies EP Venezuela, held a 30.32% non-operated minority interest in Petrocedeño S.A. which it transferred in July 2021 to Corporación Venezolana del Petróleo, S.A, an affiliate of Petróleos de Venezuela S.A. (PdVSA). TotalEnergies also sold its interest of 69.50% in the Yucal Placer field, operated by the company Ypergas S.A.[5]. The sale of TotalEnergies' participation and interests in the Yucal Placer field and in the company Ypergas was effective from July 14, 2022. TotalEnergies also returned the license of Plataforma Deltana block 4 (49%) on August 12, 2022.

TotalEnergies managed the sale of its interests in Venezuela in compliance with applicable Sanctions Regimes.

Since then, TotalEnergies no longer has any assets or operations in Venezuela.

(1) The G7 is comprised of the following member states: Canada, France, Germany, Italy, Japan, the UK, and the U.S.
(2) PAO Novatek is a Russian company listed on the Moscow and London stock exchanges, and in which TotalEnergies held an interest of 19.4% as of December 31, 2022.
(3) OAO Yamal LNG is a Russian company jointly owned by PAO Novatek, TotalEnergies EP Yamal (20.02%), YAYM Limited, and China National Oil and Gas Exploration Development Corporation (CNODC), a subsidiary of CNPC, as of December 31, 2022.
(4) OOO Arctic LNG 2 is a Russian company jointly owned by PAO Novatek, TotalEnergies EP Salmanov (10%), CNODC Dawn Light Limited, CEPR Limited and Japan Arctic LNG, as of December 31, 2022.
(5) Ypergas S.A. it's a Venezuelan company owned at 37.33% by TotalEnergies Holdings Nederland B.V. before the sale of its interests.

## 3.2.2 Information concerning certain limited activities related to certain countries under sanctions

The information concerning TotalEnergies activities related to Iran that took place in 2022 provided in this section is disclosed pursuant to Section 13(r) of the Securities Exchange Act of 1934, as amended.

In addition, information for 2022 is provided concerning the payments made by TotalEnergies' affiliates to, or additional cash flow that operations of TotalEnergies affiliates generate for, governments of any country identified by the United States as a state sponsor of terrorism (in 2022, Cuba, Iran, North Korea and Syria) or any entity controlled by those governments.

TotalEnergies is not present in North Korea. Other than fees related to the renewal of the registration of an international trademark with the World Intellectual Property Organization (WIPO) (which includes North Korea as a member state) paid in 2022, TotalEnergies is not aware of any of its activities having resulted in payments to, or additional cash flow for, the government of this country in 2022.

TotalEnergies believes that these activities are not subject to sanctions under a economic sanctions regimes, including those adopted by the United States and the European Union ("EU") (collectively, the "Sanctions Regimes").

### A) Cuba

#### Gas, Renewables & Power

In 2022, TotalEnergies Electricité et Gaz France, a wholly owned subsidiary, supplied electricity to the Cuba Embassy in France, located in Paris and Ville d'Avray. This activity generated a gross turnover of approximately €25 332 and a net margin of approximately €5 025 in 2022. TotalEnergies Electricité et Gaz France expects to continue this activity in 2023.

#### Marketing & Services

As mentioned in section 3.2.1, TotalEnergies had an interest in a liquefied petroleum gas (LPG) cylinder filing plant in Cuba since 1997, in compliance with the economic sanctions regime imposed by the United States. Such interest was sold on January 6th, 2022. TotalEnergies did not receive any revenues or net income in 2022 from this interest. Since then, TotalEnergies no longer has any assets or operations in Cuba.

In 2022, TotalEnergies Marketing France, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Cuban Embassy located in Paris (France). This activity generated a gross turnover of approximately €16,498 (without tax) and a net profit of approximately €7 in 2022. TotalEnergies Marketing France expects to continue this activity in 2023.

#### Trademarks

In 2022, TotalEnergies made small payments to Cuban authorities related to the maintenance and protection of trademarks and designs in Cuba and may make similar small payments in 2023. These payments are not prohibited by applicable Sanctions Regimes.

### B) Iran

TotalEnergies' operational activities related to Iran were stopped in 2018 following the withdrawal of the United States from the Joint Comprehensive Plan of Action (JCPOA) in May 2018 and prior to the re-imposition of US secondary sanctions on the oil industry as of November 5, 2018.

Statements in this section concerning companies controlled by TotalEnergies SE intending or expecting to continue activities described below are subject to such activities continuing to be permissible under applicable Sanctions Regimes.

#### Exploration & Production

The Tehran branch office of Total E&P South Pars S.A.S., a wholly-owned subsidiary, which opened in 2017 for the purposes of the development and production of phase 11 of the South Pars gas field, ceased all operational activities prior to November 1, 2018. In addition, since November 2018, TotalEnergies EP Iran BV maintains a local representative office in Tehran with four employees solely for non-operational functions.

Concerning payments made to Iranian entities in 2022, TotalEnergies EP Iran BV and Elf Petroleum Iran collectively made payments of approximately IRR 4.35 billion (€100,539[(1)]) to the Iranian administration for taxes and social security contributions concerning the staff of this representative office. None of these payments were executed in US dollars.

Since November 30, 2018, TotalEnergies E&P UK Limited ("TEP UK"), a wholly owned subsidiary, holds a 1% interest in a joint venture relating to the Bruce field in the United Kingdom (the "Bruce Field Joint-Venture") with Serica Energy (UK) Limited ("Serica") (98%, operator) and BP Exploration Operating Company Limited ("BPEOC") (1%), following the completion of the sale of 42.25% of TEP UK's interest in the Bruce Field Joint-Venture on November 30, 2018 pursuant to a sale and purchase agreement dated August 2, 2018 entered into between TEP UK and Serica.

The Bruce Field Joint-Venture is party to an agreement governing certain transportation, processing and operation services provided to another joint venture at the Rhum field in the UK (the "Bruce Rhum Agreement"). The licensees of the Rhum field are Serica (50%, operator) and the Iranian Oil Company UK Ltd ("IOC UK"), a subsidiary of NIOC (50%), an Iranian government-owned corporation. Under the terms of the Bruce Rhum Agreement, the Rhum field owners pay a proportion of the operating costs of the Bruce field facilities calculated on a gas throughput basis.

In November 2018, the US Treasury Department's Office of Foreign Asset Control ("OFAC") granted a conditional license to BPEOC and Serica authorizing provision of services to the Rhum field following the re-imposition of US secondary sanctions. The principal condition of the license is that the ownership of shares in IOC UK by Naftiran Intertrade Company Limited (the trading branch of the NIOC) are transferred into and held in a Jersey-based trust, thereby ensuring that the Iranian government does not derive any economic benefit from the Rhum field so long as US sanctions against these entities remain in place. IOC UK's interest is managed by an independent management company established by the trust and referred to as the "Rhum Management Company" ("RMC"). If necessary, TEP UK liaises with RMC in relation to the Bruce Rhum Agreement and TEP UK expects to continue liaising with RMC on the same basis in 2023.

(1) Converted using the average exchange rate for fiscal year 2022, as published by the Central Bank of Iran.

In January 2021, OFAC renewed the conditional license to Serica authorizing the provision of services to the Rhum field, until January 31, 2023, subject to early termination if the trust arrangements described above should terminate. In addition, OFAC confirmed that, to the extent that the license remains valid and Serica represents that the conditions set out in the license are met, activities and transactions of non-US persons involving the Rhum field or the Bruce field, including in relation to the operation of the trust, IOC UK and RMC will not be exposed to US secondary sanctions with respect to Iran. Following an application filed with OFAC on November 9, 2022, Serica received in January 2023 the renewal of its license until January 31, 2025.

IOC UK's share of costs incurred under the Bruce Rhum Agreement has been paid to TEP UK in 2022 by RMC. In 2022, based upon TEP UK's 1% interest in the Bruce Field Joint Venture and income from the net cash flow sharing arrangement with Serica, gross revenue to TEP UK from IOC UK's share of the Rhum field resulting from the Bruce Rhum Agreement was approximately £1.9 million. This amount was used to offset operating costs on the Bruce field and as such, generated no net profit to TEP UK. TEP UK expects to continue this activity in 2023.

TEP UK is also party to an agreement with Serica whereby TEP UK uses reasonable endeavors to evacuate Rhum NGL from the St Fergus Terminal (the "Rhum NGL Agreement"). TEP UK provides this service subject to Serica having title to all of the Rhum NGL to be evacuated and Serica having a valid license from OFAC for the activity. The service is provided on a cost basis, and TEP UK charges a monthly handling fee that generates an income of approximately £39,500 per annum relating to IOC UK's 50% interest in the Rhum field. After costs, TEP UK generates little profit from this arrangement. TEP UK expects to continue this activity in 2023.

#### Gas, Renewables & Power

In 2022, TotalEnergies Electricité et Gaz France, a wholly owned subsidiary, supplied electricity to the Iranian Embassy in Paris (France). This activity generated a gross turnover of approximately €33 050 and a net margin of approximately €3 660 in 2022. TotalEnergies Electricité et Gaz France expects to continue this activity in 2023.

#### Marketing & Services

In 2022, TotalEnergies Marketing France, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Iranian Embassy and the Iranian delegation to UNESCO located in Paris (France). This activity generated a gross turnover of approximately €20,500 (without tax) and a net profit of approximately €427 in 2022. TotalEnergies Marketing France expects to continue this activity in 2023.

In 2022, TotalEnergies Marketing Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Iranian Embassy located in Brussels (Belgium). This activity generated a gross turnover of approximately €17,104 (without tax) and a net profit of approximately €1,770 in 2022. TotalEnergies Marketing Belgium expects to continue this activity in 2023.

#### Trademarks

In 2022, TotalEnergies made small payments to Iranian authorities related to the maintenance and protection of trademarks and designs in Iran and may make similar small payments in 2023. These payments are not prohibited by applicable Sanctions Regimes.

### C) Syria

Since early December 2011, TotalEnergies ceased its activities that contributed to oil and gas production in Syria and maintained a local office solely for non-operational functions. In late 2014, TotalEnergies initiated a downsizing of its Damascus office and reduced its staff to a few employees. Following the termination of their employment contracts in May 2019, the Damascus office was closed.

#### Marketing & Services

In 2022, TotalEnergies Marketing Belgium, a wholly owned subsidiary, provided fuel payment cards to be used in TotalEnergies' service stations to the Syrian's delegation to the European Union located in Brussels (Belgium). This activity generated a gross turnover of approximately €1,293 (without tax) and a net profit of approximately €123 in 2022. TotalEnergies Marketing Belgium expects to continue this activity in 2023.

#### Trademarks

In 2022, TotalEnergies made small payments to Syrian authorities related to the maintenance and protection of trademarks and designs in Syria and may make similar small payments in 2023. These payments are not prohibited by applicable Sanctions Regimes.

# 3.3 Internal control and risk management procedures

The following information was prepared by the Audit & Internal Control Division with the support of several functional divisions of the Company, in particular the Legal, Finance and Strategy & Sustainability Divisions. It was reviewed by the Audit Committee and then approved by the Board of Directors.

## 3.3.1 Fundamental elements of the internal control and risk management systems

TotalEnergies is structured around its various business segments, to which the operational entities report. The business segments' management is responsible, within its area of responsibility, for ensuring that operations are carried out in accordance with the strategic objectives defined by the Board of Directors and General Management. The functional divisions at the Holding level help General Management define norms and standards, oversee their application and monitor activities. They also lend their expertise to the operational divisions.

TotalEnergies' internal control and risk management systems are structured around this organization at three levels - the Holding, business segments and operational entities - with each level being directly involved and accountable in line with the level of delegation determined by General Management.

General Management constantly strives to maintain an efficient internal control system, based on the framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In this framework, internal control is a process intended to provide reasonable assurance that the objectives related to operations, reporting and compliance with applicable laws and regulations are achieved. As for any internal control system, it cannot provide an absolute guarantee that all risks are completely controlled or eliminated.

The COSO framework is considered equivalent to the reference framework of the French Financial Markets Authority (*Autorité des marchés financiers* - AMF). TotalEnergies has also chosen to rely on this framework in the context of its obligations under the Sarbanes-Oxley Act.

TotalEnergies' internal control and risk management systems are therefore built around the five components of this framework.

TotalEnergies' risk management system draws on the main international standards (COSO Enterprise Risk Management integrated framework, ISO 31000: 2018 – Risk management) as well as on French standards (Reference framework of the French Financial Markets Authority). The internal directive on the Principles of Risk Management, Internal Control and Auditing forms the common framework on which TotalEnergies relies to implement control on its activities.

TotalEnergies' internal control and risk management systems cover the processes of the fully consolidated entities. Regarding acquisitions, TotalEnergies' control environment is implemented in the acquired entities after a critical analysis of their own systems.

The principles of control fit into the framework of the rules of corporate governance. In particular, these rules task the Board of Directors' Audit Committee with monitoring the effectiveness of the internal control and risk management systems and of the internal audit, particularly as regards the procedures for preparing and dealing with accounting, financial and non-financial reporting.

Approximately 400 employees monitor the internal control systems within TotalEnergies. The assessment of the internal control and risk management system is mainly overseen by the Audit & Internal Control Division, which belongs to the Strategy & Sustainability Division.

## 3.3.2 Control environment

### BUSINESS INTEGRITY AND ETHICS

TotalEnergies' control environment is based primarily on its Code of Conduct, which spells out the Company's five values, including Respect for Each Other, which is reflected in the areas of integrity (fraud and corruption), respect for human rights, as well as the environment and health. The principles of the Code of Conduct are set forth in a number of guides, such as the Business Integrity Guide and the Human Rights Guide. These documents are distributed to employees and are available on the intranet. They also set out the rules of individual behavior expected of all employees in the countries where TotalEnergies is present. Similarly, a Financial Code of Ethics sets forth the obligations applicable to the Chairman and Chief Executive Officer, the Chief Financial Officer, the Vice President of the Corporate Accounting Division and the financial and accounting officers of the principal activities of TotalEnergies.

As a priority of General Management, compliance programs are deployed at TotalEnergies level, in particular for the prevention of corruption, fraud and infringement of competition law, as well as for compliance with applicable economic sanctions. The programs covering anti-corruption, anti-fraud and compliance with economic sanctions include reporting and control actions (compliance reviews and audits). The Compliance network, coordinated by the Branch Compliance Officers, comprises more than 360 Compliance Officers, whose role is to ensure the deployment and coordination of the program within the subsidiaries. Ethical assessments are also conducted (refer to point 5.7 of chapter 5). In the areas of business integrity and ethics, TotalEnergies relies on the Compliance network, the Ethics Officers' network and the Ethics Committee, which plays a key role in listening and providing assistance.

### GOVERNANCE, AUTHORITIES AND RESPONSIBILITIES

The Board of Directors, with the support of its Committees, ensures that the internal control functions are operating properly. The Audit Committee monitors the effectiveness of the internal control and risk management systems implemented by General Management, based on the risks identified and with a view to achieving TotalEnergies' objectives.

General Management ensures that the organizational structure and reporting lines plan, execute, control and periodically assess the Company's activities. It regularly reviews the relevance of the organizational structures so as to be able to adapt them quickly to changes in the activities and in the environment in which they are carried out.

The business segments' and operational entities' general management bodies are responsible for the internal control and risk management system within the scope of their responsibility.

TotalEnergies has also defined central responsibilities that cover the three lines of internal control: (1) operational management, which is responsible for implementing the internal control system, (2) support functions (such as Finance, Legal, Human Resources, etc.) which prescribe the internal control systems, verify their implementation and effectiveness and assist operational employees, and (3) the internal auditors who, through their risk management and internal control assessments, provide formal audit reports that include recommendations for improving the effectiveness of the system.

An accountability system is defined and formalized at all levels of the organization, through organization notes, organization charts, appointment notes, job descriptions and delegations of powers.

TotalEnergies has a framework that is supplemented by a series of practical recommendations and via lessons learned. The structure of this framework reflects that of TotalEnergies' organization: a Company level framework, frameworks by business segment, and a specific framework for each significant operational entity.

TotalEnergies' Audit & Internal Control Division pursues a continual process aimed at strengthening the assessment of the role and involvement of all employees in terms of internal control. Training initiatives tailored to the various stakeholders involved in the internal control process are regularly launched within TotalEnergies.

#### CONTROL ACTIVITIES AND ASSESSMENT

Any activity, process or management system may be the subject of an internal audit in accordance with the international framework of the internal audit and its Code of Ethics. The Company's Audit & Internal Control Division also conducts joint audits with third party auditors and assistance missions (advice, analysis, methodological guidance). The audit plan, which is based on an analysis of the risks and risk management systems, is submitted annually to the Executive Committee and the Audit Committee. The Audit & Internal Control Division conducted around 135 internal audit assignments in 2022, with 71 employees.

The design and effectiveness of the key operational, financial and information technology controls related to internal control over financial reporting, are regularly examined and assessed in compliance with the Sarbanes-Oxley Act.

In 2022, this assessment was performed with the assistance of the Company's main entities and the Audit & Internal Control Division.

The system in place covers:

- the most significant entities, which assess the key operational controls on their main processes and complete a questionnaire which allows their internal control framework to be assessed more globally,
- other less significant entities, which respond only to the questionnaire for assessing the internal control framework.

These two categories of entities, which include the central functions of the business segments and the Holding, account for respectively approximately 85% and 10% of the financial aggregates in TotalEnergies' consolidated financial statements.

The statutory auditors also review the internal control as part of their certification of the financial statements. In accordance with the US Sarbanes-Oxley Act, during the fiscal year 2022, they reviewed the implementation of TotalEnergies' internal control framework and the design and effectiveness of the controls selected as key by TotalEnergies in its main entities for the preparation and processing of accounting and financial information. On the basis of the work they have carried out, they have not identified any material weaknesses in their report on internal control as of December 31, 2022. The reports on the work performed by the Audit and Internal Control division and the statutory auditors are periodically summarized and presented to the Audit Committee and, thereby, to the Board of Directors. The Senior Vice President Audit & Internal Control attended all Audit Committee meetings held in 2022. The Audit Committee also meets with the statutory auditors at least once a year without the presence of any Company representatives.

If areas of improvement are identified, this work, whether it be internal audits or operational controls, is part of corrective action plans shared with operational management; the implementation of which is closely monitored by them and the Audit & Internal Control Division.

Based on the internal reviews, General Management has reasonable assurance of the effectiveness of TotalEnergies' internal control.

## 3.3.3 Risk assessment and management

### 3.3.3.1 GENERAL PRINCIPLES

To implement its strategy, General Management ensures that clear and precise objectives are defined at the various levels of the organization with regard to operations, reporting and compliance.

Operational, financial and non-financial objectives focus on the definition and efficient use of human, financial and technical resources. They are documented, notably during the budgetary process and in the long-term plan. They are regularly monitored which allows for decision-making and monitoring the performance of activities at each level of the organization.

TotalEnergies implements a comprehensive risk management system that is an essential factor in the deployment of its strategy. This system relies on an organization at Company level and in the business segments, on a continuous process of identifying and analyzing risks in order to determine those that could prevent the achievement of the objectives as well as the management systems.

The Executive Committee, with the assistance of the TotalEnergies Risk Management Committee (TRMC), is responsible for identifying and analyzing internal and external risks that could affect the achievement of TotalEnergies' objectives. The main responsibilities of the TRMC are to ensure that the Company has mapped the risks to which it is exposed and that efficient risk management systems are in place. The TRMC's work focuses on continuously improving risk awareness and the risk management systems.

Risk mapping is a structured dynamic process. The Company's risk map feeds into the audit plan, which is based on an analysis of the risks and the risk management systems, and the work of the TRMC.

The TRMC relies in particular on the work carried out by the business segments and functional divisions. The business segments are responsible for defining and implementing a risk management policy suited to their specific activities. However, the handling of certain transverse risks is more closely coordinated by the respective functional divisions.

Regarding commitments, General Management exercises operational control through the Executive Committee's validation of proposed investment commitments and expenditures in excess of defined thresholds. The Risk Committee (Corisk) is tasked with reviewing these projects in advance, and in particular with verifying the analysis of the various associated risks.

### 3.3.3.2 IMPLEMENTATION OF THE ORGANIZATIONAL FRAMEWORK

#### THE TotalEnergies RISK MANAGEMENT COMMITTEE

The main assignment of the TotalEnergies Risk Management Committee (TRMC) is to ensure that the Company has an up-to-date map of the risks to which it is exposed and that the risk management systems in place are appropriate. It is chaired by the Chief Financial Officer, who is a member of the Executive Committee, and includes the President of Strategy & Sustainability, who is also a member of the Executive Committee, the managers of the corporate functions, the Senior Vice President of R&D for OneTech, together with the chief administrative officers or chief financial officers of the business segments.

Based on the work of the business segments and functional departments, the TRMC is responsible for ensuring the existence and effectiveness of risk management systems tailored to the Company's challenges. As such, its objectives are as follows:

- define a common language and tools for risk identification and prioritization,
- define risk reporting standards and risk treatment mechanisms,
- identify transversal or emerging risks, evaluate residual risks in light of existing systems and, if necessary, make proposals for additional systems to bring them to acceptable levels, and
- ensure that risks and their corresponding treatment mechanisms are handled by designated managers within the organization.

The work of the TRMC is led by the Audit & Internal Control Division, which assists contributors in preparing presentations and acts as the Committee's Secretary. In this capacity, the Audit & Internal Control Division reports annually on the work of the TRMC to the Executive Committee and to the Audit Committee in the presence of TotalEnergies' Chief Financial Officer. The latter attends all meetings of the Audit Committee and the TRMC, thus providing a link between these two committees. The TRMC met six times in 2022.

#### THE RISK COMMITTEE (Corisk)

Corisk is chaired by a member of the Executive Committee: the President of Strategy & Sustainability or, in her absence, the Chief Financial Officer.

It is made up of representatives from the corporate Strategy & Climate and HSE divisions, both attached to the Strategy & Sustainability division, as well as the representatives of the Finance (including Insurance) and Legal divisions.

Corisk meets at the same pace as Executive Committee meetings. Any project submitted to the Executive Committee (and therefore giving rise to a financial commitment that exceeds certain thresholds) is first examined by Corisk.

Following the review by Corisk of the risks associated with the project submitted, a memorandum from the Strategy & Sustainability division reflecting Corisk's comments is sent to the Executive Committee.

#### THE AUDIT & INTERNAL CONTROL DIVISION

The Risk team of the Audit & Internal Control Division is responsible for producing and continuously updating TotalEnergies' risk mapping. To this end, it uses all of the risk-mapping work carried out within the Company, in the business segments and in the functional divisions, the results of all kinds of audits and internal control activities, the action plans resulting from this work and the monitoring of their implementation,zation of structured feedback, benchmarks and other external information sources, discussions with TotalEnergies' executive officers, and all information gathered during TRMC meetings and the preparation for these meetings.

### 3.3.3.3 SYSTEMS IN PLACE

Risk management systems are implemented in the operational, financial and non-financial fields. The main risk management systems covering social challenges, health, industrial safety, environment, climate change-related challenges and the prevention of corruption are presented in the Statement of Non-Financial Performance (chapter 5).

#### REGARDING FINANCIAL RISKS

The management and conditions of use of financial instruments are governed by strict rules, defined by TotalEnergies General Management, which provide for centralization by the Treasury Division of liquidity, interest and exchange rate positions, management of financial instruments and access to capital markets. Depending on the overall needs of TotalEnergies, the financing policy aims to favor long-term debt, at floating or fixed rate, depending on the level of interest rates, mainly in dollars or euros.

TotalEnergies' cash balances, which mainly consist of dollars and euros, are managed to maintain liquidity based on daily interest rates in the given currency. Ceilings are set for transactions exceeding one month, with placements not to exceed 12 months. TotalEnergies SE also benefits from credit facilities granted by international banks. These credit facilities, along with the Company's net cash position, aim to allow it to continually maintain a high level of liquidity in accordance with objectives set by General Management in order to meet short-term needs.

In terms of counterparty risk linked to financial transactions, TotalEnergies applies a cautious policy, and only enters into commitments with institutions featuring a high degree of financial soundness, as assessed based on a multi-criteria analysis. Credit limits are determined globally for each authorized financial counterparty and is allocated among the affiliates and TotalEnergies' central treasury entities according to its financial needs. In addition, to reduce market valuation risk on its commitments, the Treasury Division has entered into margin call agreements with its counterparties in compliance with applicable regulations. Lastly, since December 21, 2018, pursuant to Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), any new interest rate swap (excluding cross currency swaps) entered into by a TotalEnergies entity must be centrally cleared.

TotalEnergies seeks to minimize its currency exposure, on the one hand, by financing its long-term assets in the functional currency of the entity to which they belong and, on the other hand, by systematically hedging the currency exposure generated by commercial activity. These risks are managed centrally by the Treasury Division, which operates within a set of limits defined by General Management.

The policy for managing risks related to financing and cash management activities, as well as TotalEnergies' exchange and interest rate risks are also described in detail in Note 15 to the Consolidated Financial Statements (point 8.7 of Chapter 8).

TotalEnergies finances its activities either by using its own resources, by issuing bonds on international markets, or by obtaining financing for specific projects from financial institutions and banks. The medium- and long-term debt policy implemented by TotalEnergies are aimed at ensuring that cash is available, notably to cover any major new project or significant acquisition.

A tightening of the selection criteria set by certain financial institutions and banks on financing for projects related to the exploration, production and sale of oil and gas could lead TotalEnergies to increase the diversification of its financing methods and sources. TotalEnergies will nonetheless continue to rely on the long-term relationships already formed with numerous banks and financial institutions.

## REGARDING RISKS RELATING TO SECURITY

With regard to security, TotalEnergies has put in place means to analyze threats and assess risks in order to take preventive measures to limit its exposure to security risks in the countries where it operates. In the face of various types of threat, TotalEnergies ensures that people and assets are protected effectively and responsibly by conducting expert appraisal, consulting and control activities. In particular, it defines security measures for TotalEnergies' operational divisions, various entities and projects, ensures that these measures are implemented; and provides expertise in the event of a crisis. It relies on a network of Country Chairs assisted by Country Security Officers and on a continuously updated security framework. The production, updating and distribution of this framework are part of the risk management system.

## REGARDING RISKS RELATING TO THE SECURITY OF INFORMATION SYSTEMS

Cybersecurity issues are the subject of a strong commitment by the General Management, which is reflected in structured governance to address the risks related to external threats monitored by the TRMC, the Executive Committee and the Audit Committee.

The President, Strategy & Sustainability, who is a member of the Executive Committee, and reports to the Company's Chairman and Chief Executive Officer, heads all information systems, including cybersecurity, which is under the authority of the Company's Global Chief Information Security Officer.

Every year, the Cybersecurity & Risk Management Division submits the cybersecurity strategy for the Company's corporate and industrial information systems to the Executive Committee for approval. In particular, it defines changes to the Company's cybersecurity reference framework. The TotalEnergies Information Systems Division develops and disseminates the governance and security rules describing the infrastructures, organizations and operating methods expected or recommended. These rules are implemented across the entities of the Company under the responsibility of the various business segments.

In addition, TotalEnergies has an Operational Security Center to detect and analyze information system security events, as well as a FIRST and TF-CSIRT certified Computer Emergency Response Team (CERT).

Lastly, TotalEnergies conducts specific risk analyses permitting the definition and implementation of appropriate security controls concerning information systems. In the event of a cyberattack on the information systems, a cyber crisis management process is set up within TotalEnergies. In addition, cyber crisis management exercises based on specific risk scenarios are organized each year and used by the various TotalEnergies entities for training purposes. In order to prevent cyber risks, awareness and training actions are also carried out regularly with TotalEnergies' employees.

## REGARDING RISK PREVENTION RELATING TO CHANGES IN THE REGULATORY ENVIRONMENT AND BUSINESS ETHICS

Reporting to General Management, with a point of contact on the Executive Committee in the form of the Chief Financial Officer, the Legal Division is responsible for establishing and implementing the legal policy. It coordinates legal activities in close cooperation with the business segments' legal departments and supports the various TotalEnergies entities in order to meet their legal needs. TotalEnergies' lawyers monitor developments in their specific areas of expertise. A Compliance and Legal Risk Management Division is responsible, at Company level, for formulating policies on preventing and fighting against corruption and fraud, as well as compliance with applicable regulations on economic sanctions. This division is also in charge of devising and overseeing the implementation of the corresponding training programs, as well as coordinating the network of anti-corruption and anti-fraud compliance officers, and the points of contact for economic sanctions.

TotalEnergies has put in place since 2015 a structured program to prevent and combat fraud and has established a range of procedures and control systems that help prevent and detect different types of fraud. This mechanism is supported by the business principles and values of individual behavior described in its Code of Conduct and other standards applied by TotalEnergies' business segments.

TotalEnergies has widely distributed to employees a directive for handling incidents of fraud, recalling in particular the whistleblowing system that any employee can use to report acts that may constitute fraud. In addition, a rule was adopted in late 2020 to formalize the procedure for collecting integrity alerts (corruption, fraud and influence peddling) and to remind the various existing alert channels.

TotalEnergies' anti-fraud compliance program includes notably: an e-learning module for all employees of TotalEnergies, a guide called Prevention and Fighting Fraud, a map of fraud risks at the Company level updated in 2019, a typological guide of fraud risks which includes descriptions of the main risks, and video campaigns to raise awareness of the major risks of fraud. This program is deployed by the network of anti-fraud coordinators in the business segments and operational entities, this role of coordinator being generally performed by the Compliance Officer. Fraud risk mapping is also performed in the subsidiaries.

For information on corruption prevention, refer to point 5.8.1 of Chapter 5.

With regard to international economic sanctions and export controls, TotalEnergies carries out its activities in compliance with applicable laws and regulations, in particular those of the European Union (EU) and United States (US). TotalEnergies has a formalized compliance program in place to prevent the risk of non-compliance with these laws and regulations. It is kept regularly updated. This program is deployed by a dedicated Economic Sanctions and Export Control department within the Legal Division and by the points of contact within the business segments to ensure that regulations are monitored on a daily basis, to analyze all TotalEnergies' transactions and projects in relation to a country under sanctions and to ensure compliance with applicable regulations. An e-learning module on this topic has been available since 2020.

A policy aimed at ensuring compliance with, and preventing infringement of, competition law is in place and is a follow-up to the various measures previously implemented by the business segments. Its deployment is based, in particular, on management and staff involvement, training courses that include an e-learning module, and an appropriate organization.

Regarding the prevention of conflicts of interest, each of the senior executives of TotalEnergies completes an annual declaration of the absence of conflicts of interest (or, if applicable, declares any conflicts of interest to which they may be subject). By completing this declaration, each senior executive also agrees to report to his or her manager any conflict of interest that he or she has had, or would have, knowledge of in the course of his or her duties. The "Conflicts of Interest" internal rule also reminds all employees of their obligation to report to their manager any situation that might give rise to a conflict of interest so that measures can be taken to deal with it when necessary.

In order to prevent market abuse linked to trading on the financial markets, TotalEnergies applies a policy based in particular on internal ethics rules that are regularly updated and distributed. In addition, TotalEnergies' senior executives and certain categories of employees, depending on the positions they hold, are required to refrain from carrying out any transactions, including hedging, on TotalEnergies shares or ADRs and units in FCPEs (company mutual funds) invested primarily in TotalEnergies shares (as well as on any derivatives linked to these shares) on the day on which the Company announces its quarterly, half-yearly or annual results and during the preceding 30 calendar days. An annual campaign specifies the blackout periods and rules applicable to those affected.

To mitigate the risks of third parties infringing its intellectual property rights and the leak of know-how, TotalEnergies ensures that its rights are protected contractually under partnership agreements the terms and conditions of which are negotiated by its intellectual property specialists and are consistent with its industrial and commercial strategy. TotalEnergies has a policy of filing and maintaining patents, monitors technological developments in terms of freedom of use, and takes, when necessary, all appropriate measures to ensure the protection of its rights.

In addition, since some of its employees have access to confidential documents while performing their duties, TotalEnergies has adopted internal rules concerning the management of confidential information. TotalEnergies' intellectual property specialists also carry out awareness-raising activities with employees, so that they are better informed about restrictions that may apply to the use of information and data. In terms of the security of information assets, TotalEnergies also implements document retention and personal data protection policies to deal with increasingly significant legal and security risks.

## REGARDING RISKS RELATING TO THE SUPPLY CHAIN

The Company pays particular attention to working with responsible suppliers who respect both human rights and the environment throughout its value chain. The Company expects its suppliers to adhere to the Fundamental principles of purchasing which derive from its Code of Conduct. To that end, the Company has chosen to have the management of its supplier relations coordinated by a dedicated cross-functional entity, TotalEnergies Global Procurement, which is specifically tasked with providing Purchasing services and assisting the Company's entities and sites[1].

Agreements signed with third party suppliers are managed under TotalEnergies' dedicated procurement system (structure, rules and tools). This system includes a supplier evaluation and qualification process, the monitoring of contracts and their performance (refer to point 5.10 of Chapter 5) and the monitoring of the financial robustness of the main suppliers. Finally, the audits provided for in the agreements with the suppliers complete the system.

## REGARDING RISKS RELATING TO EXPOSURE TO PARTNERSHIPS

The procedures for selecting TotalEnergies' partners and managing the different stages in the life cycle of each partnership are governed by structured internal reference frameworks, applied by all Company entities.

In order to ensure that the process of selecting future partners for the creation of a joint company and/or the completion of a joint project is robust, TotalEnergies' framework includes performing due diligence relating to the partner's HSE, technical, legal and financial activities and operating methods. A corruption risk analysis is also carried out.

The agreements signed with these third parties are mainly drawn up by multi-disciplinary negotiation teams. Training programs, at the Company and business segment levels, ensure that the necessary knowledge and skills are transferred to ensure that contracts are correctly prepared, activities monitored, and TotalEnergies' interests properly represented in the partnership. The relevant operational entity puts in place the structure required to monitor and manage the partnership. Finally, the audits provided for in the partnership agreements complete the system.

(1) With the exception of certain entities that retain management of their supplier relationships, such as Hutchinson, Saft Groupe, TotalEnergies Renouvelables France, TotalEnergies Electricité et Gaz France, Greenflex and TOTSA TotalEnergies Trading SA.

## 3.3.4 Main characteristics of the internal control and risk management procedures relating to the preparation and processing of accounting and financial information

Accounting and financial internal control covers the processes that produce accounting and financial data, and mainly the financial statements processes and the processes to produce and publish accounting and financial information. The internal control system aims to:

- conserve TotalEnergies' assets,
- comply with accounting regulations, and properly apply standards and methods to the production of financial information, and
- ensure the reliability of accounting and financial information by controlling the production of this information and its consistency with the information used to produce the dashboards at every appropriate level of the organization.

At the Company level, the Finance Division, which includes the Accounting Division, the Budget & Financial Control Division and the Tax Division, is responsible for the production and processing of accounting and financial information. The scope of the internal control procedures relating to the production and processing of financial and accounting information includes the parent company (TotalEnergies SE) and all fully consolidated entities or entities whose assets are under joint control.

Refer to point 4.1.2.3 of chapter 4 for a description of the role and the missions of the Audit Committee. These missions are defined by Directive 2014/56/EU and regulation (EU) No. 537/2014 regarding statutory audits.

### 3.3.4.1 PRODUCTION OF ACCOUNTING AND FINANCIAL INFORMATION

#### ORGANIZATION OF THE FINANCIAL FUNCTION

Dedicated teams implement the accounting and financial processes in the areas of consolidation, tax, budget and management control, financing, cash positions and information systems. The entities, business segments and General Management are respectively responsible for accounting activities.

The Accounting Division, which is part of the Finance Division, is responsible for drawing up the Consolidated Financial Statements and manages TotalEnergies' network of accounting teams.

The tax function, made up of a network of tax experts at the corporate level, in the business segments and the entities, monitors changes in local and international rules. It is responsible for implementing the tax policy approved by the Board of Directors, for all business sectors. The Head of Tax, under the authority of the Chief Financial Officer, submits a regular report on TotalEnergies' tax situation to the Audit Committee, which reports on its work to the Board of Directors.

Management control contributes to the reinforcement of the internal control system at every level of the organization. The network of management controllers in the entities and the business segments is supervised by the Budget & Financial Control Division. This department also produces the monthly dashboard, the budget and the long-term plan.

The Treasury Division implements the financial policy, and in particular the processing and centralization of cash flows, the debt and liquidity investment policy and the hedging of exchange and interest rate risks.

The Information Systems Division makes decisions on the choice of software suited to the accounting and financial requirements of TotalEnergies. These information systems are subject to developments to reinforce the task separation system and to improve the control of access rights. Tools are available to make sure that access rights comply with the Company's rules in this area.

#### CONSOLIDATED FINANCIAL STATEMENTS PROCESS

The Accounting Department which reports to the Finance Division, prepares TotalEnergies' quarterly Consolidated Financial Statements according to IFRS standards, on the basis of the consolidated reporting packages prepared by the entities concerned. The Consolidated Financial Statements are examined by the Audit Committee and then approved by the Board of Directors.

The main factors in the preparation of the Consolidated Financial Statements are as follows:

- the processes feeding the individual accounts used to prepare the reporting packages for consolidation purposes are subject to validation, authorization and booking rules,
- the consistency and reliability of the accounting and control data are validated for each consolidated entity and at each relevant level of the organization,
- a consolidation tool, supervised by the Accounting Department is used by each consolidated entity and centrally to ensure the consistency and reliability of data at each relevant level of the organization,
- a consolidation reporting package from each entity concerned and that is sent directly to the Accounting Department allows the transmission and completeness of the information to be optimized,
- a corpus of accounting rules and methods is formalized in the Financial Reporting Manual. Its application is compulsory for all the consolidated entities in order to provide uniform and reliable financial information. This framework is built according to IFRS accounting standards. The Accounting Department centrally distributes the Financial Reporting Manual through regular and formalized communication with the heads of the business segments. This manual, which is regularly updated, specifies in particular the procedures for identifying, valuing and recognizing off-balance sheet commitments,
- new accounting standards under preparation and changes to the existing framework are monitored in order to assess and anticipate their impacts on the Consolidated Financial Statements,
- an accounts plan used by all the consolidated entities is formally set forth in the Financial Reporting Manual, specifying the content of each account and the procedures for the preparation of the reporting packages for consolidation purposes,
- the account closing process is supervised and is based mainly on the formalization of economic assumptions, judgments and estimates, treatment of complex accounting transactions and compliance with established timetables announced through Company instructions disclosed to each entity,
- in particular, the processes applicable to the preparation of the accounts of the acquired entities are reviewed and, where appropriate, amended to integrate them into those applicable to the preparation of the Consolidated Financial Statements. Furthermore, the booking in the accounts of the purchase price allocation of each of these entities is based on assumptions, estimates and judgments in line with the TotalEnergies business model, and
- off-balance sheet commitments, which are valued according to the Financial Reporting Manual, are reported on a quarterly basis to the Audit Committee.

## PROCESSING OF ACCOUNTING AND FINANCIAL INFORMATION

Internal control of accounting and financial information is primarily organized around the following areas:

- monthly financial reporting is formalized by Company and business segment dashboards using the same reference framework and standards as those used for the consolidated financial statements; in addition, the quarterly closing schedule is the same for preparing the Consolidated Financial Statements and financial reporting,
- a detailed analysis of differences as part of the quarterly reconciliation between the Consolidated Financial Statements and financial reporting is supervised by the Accounting and Budget & Financial Control Divisions, which are part of the Finance Division,
- a detailed analysis of differences between actual amounts and the yearly budget established on a monthly basis is conducted at each level of the organization. The various monthly indicators are used to continually and uniformly monitor the performance of each of the entities, the business segments and the Company, and to make sure that they are in keeping with the objectives,
- an annual reconciliation between the statutory financial statements and the financial statements based on IFRS standards is performed by entity,
- regular controls are designed to ensure the reliability of accounting information. They relate in particular to the processes for drawing up financial aggregates,
- a regular process for the signature of representation letters is deployed at each level of the organization,
- an annual control system of the accounts of equity accounted affiliates based on a questionnaire completed by each entity concerned, the system being integrated within the TotalEnergies internal control framework, and
- the Disclosure Committee ensures the respect of the procedures in place.

Other significant financial information is produced according to strict internal control procedures.

Proved oil and gas reserves are evaluated annually by the relevant entities. They are reviewed by the Reserves Committees, approved by Exploration & Production's general management and then validated by TotalEnergies' General Management. They are also presented to the Audit Committee each year.

The internal control process related to estimating reserves is formalized in a special procedure described in detail in point 2.3.1 of chapter 2. The reserve evaluation and the related internal control processes are audited periodically.

TotalEnergies' published strategic and outlook presentations are prepared, notably based on the long-term plans drawn up at the business segment and Company levels, and the works carried out at each relevant level of the organization. The Board of Directors reviews the strategic and outlook presentations each year.

### 3.3.4.2 PUBLICATION OF ACCOUNTING AND FINANCIAL INFORMATION

Significant information about TotalEnergies is published externally according to formal internal procedures. These procedures aim to guarantee the quality and fair presentation of the information intended for the financial markets, and its timely publication.

The Disclosure Committee, chaired by the Chief Financial Officer, ensures, in particular, that these procedures are respected. Accordingly, it meets before the press releases on TotalEnergies' results and annual reports are submitted to the Audit Committee and the Board of Directors.

A calendar of the publication of financial information is published and made available to investors on TotalEnergies' website. With the help of the Legal Division, Investor Relations Division ensures that all publications are made on time and in accordance with the principle of equal access to information between shareholders.

## ASSESSMENT OF THE SYSTEM FOR THE INTERNAL CONTROL OF ACCOUNTING AND FINANCIAL INFORMATION

TotalEnergies' General Management is responsible for implementing and assessing the internal control system for financial and accounting disclosure. In this context, the implementation of TotalEnergies' internal control framework, based on the various components of the COSO, is assessed internally at regular intervals within the TotalEnergies' main entities.

Pursuant to the requirements introduced by Section 302 of the Sarbanes-Oxley Act, the Chairman and Chief Executive Officer and the Chief Financial Officer have conducted, with the assistance of members of certain divisions of TotalEnergies (in particular Legal and Audit & Internal Control), an evaluation of the effectiveness of the internal disclosure Controls and Procedures (Disclosure Controls and Procedures) over the period covered by the annual report Form 20-F. For fiscal year 2022, the Chairman and Chief Executive Officer and the Chief Financial Officer have concluded that these internal controls and procedures were effective.

In addition, a specific process is in place for reporting any information related to TotalEnergies' accounting procedures, internal control and auditing. This process is available to any shareholder, employee or third party.

Finally, the Consolidated Financial Statements undergo a limited examination during quarterly closing, and an audit during annual closing. Almost all the audit missions performed in the countries where TotalEnergies operates are fulfilled by the members of the networks of the two statutory auditors, who, after performing their audit, proceed with the annual certification of TotalEnergies' Consolidated Financial Statements. They are informed in advance of the process for the preparation of the accounts and present a summary of their work to the Company's accounting and financial managers and to the Audit Committee during the quarterly reviews and annual closing. The statutory auditors also review the internal control as part of their certification of the financial statements.

# 3.4 Insurance and risk management

## 3.4.1 Organization

TotalEnergies has its own reinsurance company, Omnium Reinsurance Company (ORC). ORC is integrated within the Company's policy on insurance and constitutes the operational tool for harmonizing and centralizing coverage of the subsidiaries' insurable risks. It allows the Company's worldwide insurance program to be implemented in compliance with the specific requirements of local regulations applicable in the countries where the Company operates.

Some countries may require the purchase of insurance from a local insurance company. If the local insurer agrees to cover the subsidiary in accordance with ORC's worldwide insurance program, ORC negotiates a cession of the risks with the local insurer. ORC thus enters into reinsurance contracts with the subsidiaries' local insurance companies, which transfer nearly all of their risks to ORC.

At the same time, ORC negotiates reinsurance programs at the Company level with energy mutual insurance companies and on commercial reinsurance markets. ORC allows the Company to better manage price variations in the insurance market by taking on a greater or lesser amount of risk depending on price variations observed.

Apart from insurance contracts covering industrial risks, other insurance contracts are subscribed for property damage and third-party liability coverage, particularly in connection with the car fleet, credit insurance and employee benefits. These risks are essentially covered by outside insurance companies, without the intervention of ORC.

## 3.4.2 Risk and insurance management policy

In this context, the risk and insurance management policy is to work closely with the relevant internal departments of each subsidiary to:

- define scenarios of major disaster risks (estimated maximum loss),
- assess the potential financial impact on the Company should a catastrophic event occur,
- help implement measures to limit the probability that a catastrophic event occurs and the financial consequences if such event should occur, and
- manage the level of financial risk from such events to be either covered internally by the Company or transferred to the insurance market.

## 3.4.3 Policy on insurance

TotalEnergies has worldwide property insurance and third-party liability coverage for all its consolidated subsidiaries and the majority of its non-consolidated subsidiaries. These programs are contracted with first-class insurers (or reinsurers and energy mutual insurance companies through ORC).

The amounts insured depend on the financial risks defined in the disaster scenarios and the coverage terms offered by the insurance market.

More specifically for:

- third-party liability: because the maximum financial risk cannot be evaluated by a systematic approach, the amounts insured are based on market conditions and industry practice. In 2022, the ceiling was $845 million (onshore) and $825 million (offshore) for any third-party liability incident (including liability in the event of an accident having an impact in the environment) exceeding $50 million. In addition, the Company adopts, where appropriate, the necessary means to manage the compensation of victims in the event of an technological accident for which it is liable, and
- property damage and business interruption: the amounts insured in 2022 vary depending on the sector and on the site and are based on the estimated cost and scenarios of reconstruction underestimated maximum loss situations and on insurance market conditions. Business interruption insurance has been taken out in 2022 for most of the refining and petrochemical plants, terminals and liquefaction plants and for gas-fired power plants. By way of illustration, for the maximum incidents estimated by TotalEnergies for physical damage (certain North Sea platforms and refineries or petrochemical or plants), the maximum amount covered for the Company's share of these installations was approximately $2.06 billion in 2022 for the Refining & Chemicals segment and approximately $1.635 billion for the Exploration & Production segment.

In 2022, the maximum share of claims retained by the Company after reinsurance, within the limits of the insured ceilings was:

- $184 million per onshore third-party liability claim and $123 million per offshore third-party liability claim, and
- $260 million per onshore property damage and business interruption claim and $135 million per offshore property damage claim for the Exploration & Production segment "property damage".

The Company has modified its policy on insurance in 2023 in order to only transfer to the insurance market the significant risks, in line with industry practices:

- the third-party liability ceiling is $441,5 million (onshore) and $510 million (offshore) in excess of a deductible of $500 million retained by the Company,
- onshore property damages are insured for a $450 million ceiling per disaster. The business interruption risk is retained by the Company. The offshore property damages are insured for a maximum amount of $1.715 billion for the Exploration & Production segment, of which a maximum of $135 million per claim retained by the Company.

The policy on insurance described above reflects a particular situation as of a given date and cannot be considered as representative of a permanent situation. The Company's policy on insurance may be changed at any time depending on market conditions, specific circumstances and General Management's assessment of the risks incurred and the adequacy of their coverage.

TotalEnergies considers that its insurance coverage is in line with industry practice and sufficient to cover normal risks in its operations. However, the Company is not insured against all potential risks. In the event of a major environmental disaster, for example, TotalEnergies' liability could exceed the maximum coverage provided by its third-party liability insurance. TotalEnergies cannot guarantee that the Company will not suffer any uninsured loss, and there can be no guarantee, particularly in the event of an environmental disaster or a major industrial accident, that such loss would not have a material adverse effect on the Company.

# 3.5 Legal and arbitration proceedings

There are no governmental, legal or arbitration proceedings, including any proceeding of which the Corporation is aware that are pending or threatened against the Corporation, that could have, or could have had during the last 12 months, a material impact on TotalEnergies' financial situation or profitability.

Described below are the main administrative, legal and arbitration proceedings in which the Corporation and the other entities of TotalEnergies are involved.

## FERC

The Office of Enforcement of the US Federal Energy Regulatory Commission (FERC) began in 2015 an investigation in connection with the natural gas trading activities in the United States of TotalEnergies Gas & Power North America, Inc. (TGPNA), a US subsidiary of TotalEnergies. The investigation covered transactions made by TGPNA between June 2009 and June 2012 on the natural gas market. TGPNA received a Notice of Alleged Violations from FERC on September 21, 2015. On April 28, 2016, FERC issued an order to show cause to TGPNA and two of its former employees, and to the Corporation and TotalEnergies Gas & Power Ltd., regarding the same facts. The case was remanded on July 15, 2021 to the FERC Administrative Judge for hearing and consideration on the merits. The ruling by the FERC Administrative Judge could be delivered in 2023. TGPNA contests the claims brought against it.

A class action, launched to seek damages from these three companies, was dismissed by a judgment of the US District court of New York issued on March 15, 2017. The Court of Appeal upheld this judgment on May 4, 2018. In September 2019, a California city initiated another class action against the same parties based on the same legal ground. This class action was dismissed by the US District court of New York on June 8, 2020. This judgment was confirmed on appeal by a ruling issued on December 3, 2021.

## DISPUTES RELATING TO CLIMATE

In France, the Corporation was assigned in January 2020 before Nanterre's Court of Justice by certain associations and local communities in order to oblige the Company to complete its Vigilance Plan, by identifying in detail risks relating to a global warming above 1.5 °C, as well as indicating the expected amount of future greenhouse gas emissions related to the Company's activities and its product utilization via third parties. TotalEnergies estimates that it has fulfilled its obligations regarding vigilance duty.

Several associations in France assigned TotalEnergies and TotalEnergies Gaz et Electricité France before the Paris Court of Justice within the scope of a civil action, with the aim of proving that since May 2021 – after the change of name of TotalEnergies – the Company's corporate communication and its publicity campaign contain environmental claims that are either false or misleading for the consumer. TotalEnergies believes that these accusations are unfounded. The Company has also been informed that a preliminary investigation has been opened by the Economic and Financial Division of the Nanterre Public Prosecutor's Office, for facts and allegations of a similar nature, following a complaint filed in 2020 by several associations. The Company did not have access to the content of this complaint.

In the United States, two subsidiaries of TotalEnergies were assigned in 2017 by certain communities and associations for their liability in climate change before a California Court. These two subsidiaries, as well as the 34 other companies and professional associations, are contesting the State Court's competence to rule this request. In September 2020, the Attorney General of the State of Delaware launched an indemnity claim based upon climate change against the Corporation, Total Specialties USA (now known as TotalEnergies Marketing USA, Inc.) and about 30 other oil companies before a court of this State. These companies are contesting the competence of such court to rule this request.

## RUSSIA

In France, TotalEnergies learned through the national press in October 2022 that two associations had filed a complaint against the Company with the Prosecutor's Office for counter-terrorism, due to the continuation of some of the Company's activities in Russia since the Russian invasion of Ukraine in 2022. The complaint, which the Company has not been given access to, accuses the Company – due to its 49% holding in Russian company Terneftegas, which is 51%-owned by Novatek and operated by said company – of complicity in war crimes committed by the Russian Air Force in Ukraine, by aiding or assisting, through the supply of kerosene to the Russian Air Force. The Company, – which has no direct or indirect activity vis-à-vis the sale of kerosene in Russia – has strongly rejected these accusations, as unfounded in both law and fact[1].

The complaint was dismissed by the National Anti-Terrorist Prosecutor's Office in early January 2023.

(1) Please refer to the press release published by the Company on 24 August 2022 contesting the accusations made by French newspaper Le Monde.

# 3.6 Vigilance Plan

## 3.6.1 Introduction

### 3.6.1.1 REGULATORY FRAMEWORK

In accordance with Article L. 225-102-4 of the French Commercial Code, the vigilance plan (hereinafter referred to as the "Vigilance Plan") aims to set out the reasonable measures of vigilance put in place within the Company to identify risks of and prevent severe impacts on human rights, fundamental freedoms, human health and safety and the environment resulting from the activities of the Corporation and those of the companies it controls as defined in point II of Article L. 233-16 of the French Commercial Code, directly or indirectly, as well as the activities of subcontractors or suppliers with which it has an established commercial relationship, where such activities are linked to this relationship.

The Vigilance Plan covers the activities (hereinafter referred to as the "Activities" in this section) of TotalEnergies SE and its consolidated subsidiaries as defined in II of Article L. 233-16 of the French Commercial Code (hereinafter referred to as the "Subsidiaries" in this section)[1]. It also covers the activities of suppliers of goods and services with which TotalEnergies SE and its Subsidiaries have an established commercial relationship, where such activities are associated with that relationship (hereinafter referred to as the "Suppliers")[2].

TotalEnergies operates close to 130 countries in a variety of complex economic and socio-cultural contexts and in business areas that are likely to present risks that fall within the scope of the Vigilance Plan.

The reasonable measures of vigilance set out in this Vigilance Plan take into account the diversity and the geographic reach of the Company's Activities. As part of its reporting of the implementation of the Vigilance Plan, TotalEnergies has chosen to illustrate its actions by referring to situations upon which it was specifically questioned.

### 3.6.1.2 METHODOLOGY AND PREPARATION OF THE VIGILANCE PLAN

TotalEnergies has integrated consideration of the impact of its Activities and those of its Suppliers on people's health and safety, the environment and respect for human rights into its corporate culture.

Thus in formulating its Vigilance Plan, TotalEnergies relies on a solid foundation of procedures, management and reporting tools, including with respect to HSE and human rights. Experiences acquired have contributed to develop further the Vigilance Plan.

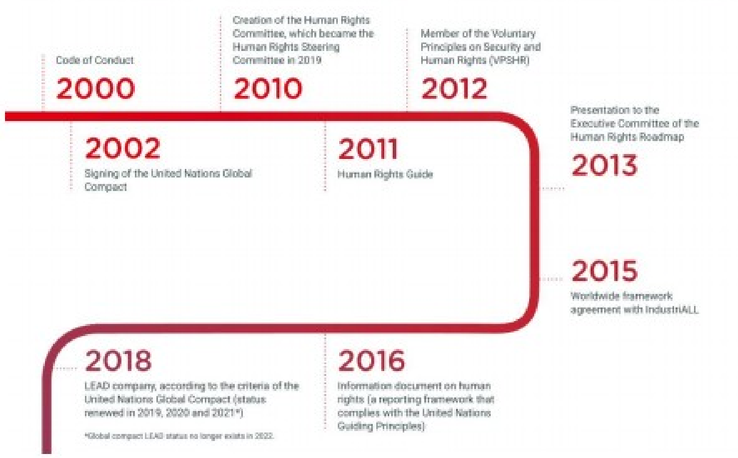
**Health, safety and the environment (HSE)** have long been the object of specific attention at Company level. Given their nature, the Activities give rise to health and safety risks for employees, the personnel of external contractors, and residents in the vicinity of industrial sites.

Since 2016, TotalEnergies has had an HSE Committee, which includes the members of the Executive Committee and is chaired by the Chairman and Chief Executive Officer. The Committee's role is to generate momentum at top management level to ensure that safety is a value shared by all. All HSE functions at headquarters and in the Company's business segments are centralized within a single HSE division. The objective of this unified organization is to combine the strengths and expertise and to harmonize existing good practices, based on a One MAESTRO[3] reference framework common to all business segments. In practice, TotalEnergies takes a continuous improvement approach to HSE, involving every level of the organization. HSE objectives are presented to the Executive Committee every year. One MAESTRO standards, defined at Company level, are implemented by the Subsidiaries through their own HSE management systems.

**Human rights** are at the heart of the Company's operations. Since 2000, TotalEnergies has adopted a Company Code of Conduct.

In 2002, TotalEnergies joined the United Nations Global Compact. Since 2010, the Company has been supported by a Human Rights Steering Committee. The human rights road map is presented and reviewed regularly at Executive Committee meetings. In 2013, the Executive Committee examined and validated the Company's first human rights road map, and in 2016, its first human rights briefing paper, which has since been updated.

In 2021, TotalEnergies created a Sustainability & Climate division to which the Human Rights department is attached.




(1) Certain companies, such as Hutchinson, Saft Groupe and SunPower, have set up risk management and impact prevention measures specific to their organizations. In addition, for newly acquired companies, reasonable vigilance measures are intended to be implemented progressively during the integration phase of these companies into the Company systems. They are therefore not included in the scope of the 2022 Vigilance Plan.
(2) In accordance with the regulatory provisions, suppliers with which the Company does not have an established commercial relationship do not fall within the scope of this Plan. This Plan reflects the sustainable procurement principles applicable to relationships with Suppliers, but is not aimed at replacing the measures in place at those Suppliers.
(3) MAESTRO stands for 'Management and Expectations Standards Toward Robust Operations'.

The elaboration of the Vigilance Plan is part of a broader set of work to identify and analyse risks within TotalEnergies, including the Company's risk mapping. This process is based on an integrated approach that calls on the skills of the various functions involved (HSE, human rights, procurement, human resources, societal, security and legal).

In 2018, in the meetings of the Operational Committee of the European Works Council[(1)], Committee members were provided with information on the law on the duty of vigilance and the methods used to prepare the Vigilance Plan, and were given an opportunity to comment.

The Board of Directors reviews the Vigilance Plan and its annual implementation report.

### 3.6.1.3 DIALOGUE WITH STAKEHOLDERS

TotalEnergies engages in dialogue with stakeholders at every level of the organization. In accordance with the Company's framework documents on societal matters, stakeholders are identified, mapped out and organized by level of priority according to their expectations and degree of involvement. This includes the following steps: list the main stakeholders for each Subsidiary and site (depots, refineries, etc.), categorize them and schedule consultation meetings to better understand expectations, concerns and opinions. The outcome of this process is the definition of action plans to manage the impacts of activities and consider local development needs, in order to build a long-term relationship based on trust. This process allows the Company to explain its activities to communities and other stakeholders, and to single out potentially vulnerable local populations. Its deployment continues in the Subsidiaries.

In order to facilitate this dialogue, certain Subsidiaries have established a network of dedicated contacts. For example, in some Subsidiaries within the Exploration & Production segment, a network of local community mediators is in place to maintain a constructive dialogue with local communities. These mediators act as Community Liaison Officers (CLO) and are tasked with establishing an ongoing dialogue with stakeholders on the ground (Stakeholder Engagement), including local authorities and communities and, more broadly, local players in civil society. Employed by TotalEnergies, sometimes coming from the local communities, they speak the local languages and understand local customs. They play a decisive role which is crucial in establishing good relations between TotalEnergies and its stakeholders and pay close attention to the most vulnerable populations.

A structured dialogue with stakeholders is established and maintained, primarily at local level. Subsidiaries manage local relations with civil society and are encouraged to enter into dialogue with non-governmental organizations (NGOs). The Company also cooperates with external experts specialized in preventing and managing conflict between businesses and local communities.

Additionally, relevant divisions of the Holding ensure a continuous dialogue with stakeholders of TotalEnergies. The Sustainability & Climate Division manages relations between the Company and civil society, represented notably by NGOs, as well as large institutions and multilateral agencies (e.g., Global Compact). TotalEnergies maintains ongoing exchanges with its employees and their representatives – whose role and position allows for privileged interactions, particularly with management. Social dialogue is a key component of the Company. It includes all types of negotiations, consultations or exchanges of information among the management of the TotalEnergies entities, employees and their representatives about economic and workplace issues and concerns relating to company life. The topics addressed in this social dialogue may vary according to each Subsidiary, but some are shared concerns across the Company such as health and safety, work hours, compensation, training and equal opportunity.The Company is careful to conduct this dialogue at both the local level and at headquarters or centrally, through its participation in company bodies and its negotiation of agreements.

In countries where employee representation is not required by law, the Subsidiaries strive to establish such representation. As a result, majority elected employee representatives are present in most TotalEnergies companies.

At the European level, as part of the transformation of the Corporation into a European company (SE), an agreement was reached on April 15, 2020, to create the SE Works Council (known as the TotalEnergies European Works Council) to replace the former European Works Council, while maintaining continuity in its operations and missions.

The TotalEnergies European Works Council serves as a forum for providing information and regular exchanging views about the Company's strategy, its workplace, economic and financial situation, as well as on matters relating to sustainable development, environmental and social responsibility and safety. It is consulted for significant proposed organizational changes concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies. Innovative measures have been introduced to improve dialogue with the members of the TotalEnergies European Committee, including field safety visits and learning expeditions to discuss the Company's strategy directly on site.

At the global level, TotalEnergies signed in 2015 a four-year agreement with IndustriALL Global Union[(2)] on the promotion of human rights at work, diversity, health and safety at work and the dialogue with employees and their representatives. TotalEnergies continues to apply the commitments of this global agreement.

Through this global agreement and the Fundamental Principles of Purchasing, TotalEnergies also asks its suppliers to respect freedom of expression, association and collective bargaining and, in countries where this right is restricted, to ensure that employees have the right to participate in a dialogue concerning their collective work situation.

In December 2017, TotalEnergies also joined the Global Deal initiative, a multi-stakeholder worldwide partnership whose goal is to encourage governments, companies, unions and other organizations to make concrete commitments to improve dialogue with employees. The Global Deal promotes the idea that effective dialogue with employees can contribute to decent work and quality jobs and, as a result, to more equality and inclusive growth, from which workers, companies and civil society benefit. In 2022, TotalEnergies continued to share its good practices with Global Deal member companies by participating in a working group focusing on the duty of vigilance.

(1) This committee was replaced by the TotalEnergies European Works Council following the transformation of the Corporation into a European company.
(2) International federation of trade unions representing more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

## 3.6.2 Severe impact risk mapping

The mapping work presented below, which includes risks for people and the environment, was carried out using TotalEnergies' risk management tools.

### 3.6.2.1 SAFETY, HEALTH AND THE ENVIRONMENT

TotalEnergies defines the risk of a severe impact on safety, health or the environment as the probability of Activities having a direct and significant impact on the health or safety of **employees of TotalEnergies companies, employees of external contractors**[1] **and third parties, or on the environment** following a large scale pollution or a pollution impacting a sensitive natural environment[2].

TotalEnergies has developed regular safety, health and environment risk assessment procedures and tools applicable to operate its Activities at various levels (Company, activities and/or industrial sites):

- prior to investment decisions in industrial projects of the Company, acquisition and divestment decisions,
- during operations, and
- prior to releasing new substances on the market.

With respect to potential major industrial accidents, analyses are based notably on incident scenarios at the site level, for each of which the probability of occurrence and potential consequences (in terms of severity) are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures that may be technical or organizational in nature. Each business segment produces, on a yearly basis, an inventory of its identified major industrial accident risks, which is submitted to management/committees in each segment and to the HSE Committee (refer to 3.6.1.2), providing a global overview of identified risks and of progress on action plans launched by the Subsidiaries operating the sites.

This work allowed to identify, analyze and prioritize the risks of severe impacts. These analyses have highlighted the following risks of severe impacts:

- risks to the safety of people and to the environment resulting from a major industrial accident on an offshore or onshore site. This accident could be an explosion, a fire or a leak resulting in fatalities or bodily harm, and/or accidental pollution on a large scale or on a sensitive natural environment, for example a well blowout,
- risks to the safety of people and to the environment related to the overall life cycle of the products manufactured, and to the substances and raw materials used, and
- risks associated with transportation, for which the likelihood of an operational accident depends on the hazardous nature of the products handled, as well as on volumes, length of the journey and sensitivity of the regions through which products are transported (quality of infrastructure, population density, environment).

Climate change is a global risk for the planet and results from various human actions such as energy consumption. As an energy producer, TotalEnergies seeks to reduce direct greenhouse gas emissions resulting from its operated Activities. In 2022, worldwide greenhouse gas (GHG) emissions from the facilities operated by TotalEnergies amounted to 40 Mt $CO_2e$, less than 0.1% of total worldwide emissions, which amounted to 54 billion tons in 2020[3]. In addition, TotalEnergies implements a strategy to tackle climate change challenges and reports on this in detail, notably in its statement of non-financial performance (refer to point 5.4 of chapter 5), in accordance with Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code.

### 3.6.2.2 HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS

The risks of impacts on human rights for **TotalEnergies personnel and third parties** were identified according to the criteria defined in a well-established reference document for the mapping of human rights risks, the United Nations Guiding Principles Reporting Framework:

- severity: the scale of the impact on the human right(s), and/or
- scope: the number of persons affected or who could be affected, and/or
- the remediable nature of the impact: the ease with which the corresponding rights of the impacted persons can be restored.

TotalEnergies applied the United Nations Guiding Principles Reporting Framework, which defines the following process:

- identify all human rights at risk of being negatively impacted by a company's activities or business relations, by taking into account all relevant business activities and entities in the company and the point of view of the people exposed to a negative impact,
- prioritize potential negative impacts based on their potential gravity (severity and potential extent of the impact and the required remediation efforts) and their probability (while paying particular attention to very severe but unlikely impacts),
- explain the conclusions to internal and external stakeholders and check that factors have not been omitted.

This risk mapping work was carried out by TotalEnergies in 2016 in consultation with internal and external stakeholders. The process included workshops with representatives of key business activities of the Company (human resources, procurement, security, HSE, Ethics Committee, Human Rights Steering Committee) and of Subsidiaries operating in difficult environments or particularly exposed to risks to human rights and fundamental freedoms. A series of interviews was held with independent third parties (GoodCorporation, International Alert, Collaborative Learning Project). The participants were able to share return on experience on the ground (difficulties faced, proposals for improvements on issues related to human rights and HSE resulting from Subsidiary assessments). The questions raised at the Business Ethics Day were also taken into consideration. The results of the in-house survey of employees regarding their professional situation and perception of the company conducted at local or Company level, were also taken into account.

(1) Personnel of companies working on a site operated by a Subsidiary.
(2) Sensitive natural environments include, in particular, remarkable or highly vulnerable natural areas, such as sea ice in the Arctic, as well as areas covered by significant regulatory protection such as Protected Area Categories I to IV as defined by the International Union for Conservation of Nature (IUCN), Ramsar areas, or natural sites listed on the UNESCO World Heritage List at December 31, 2021 (the 45th session of the World Heritage Commitee schedule for 2022 in Russia having been postponed).
(3) U.N. Environment Programme, 'Emissions Gap Report 2022'.

This work enabled TotalEnergies to identify and analyze the human rights risks that affect the Activities and to prioritize them according to their salience.

The salient risks are thus identified by comparing indicators and information provided by external stakeholders and internal return on experience. The dialogue with local stakeholders and feedback from the field, described above (refer to point 3.6.1.3 of this chapter) also contribute to this.

The mapping of salient risks, periodically updated, is supplemented by dedicated mappings such as the CSR risk mapping linked to TotalEnergies' purchasing by categories of goods and services (refer to point 3.6.2.3 of this chapter). Risk mapping by the Security division also takes into account human rights and the VPSHR (Voluntary Principles on Security and Human Rights).

In 2019, TotalEnergies updated its procedures to analyze risks of impacts on human rights (taking into account the country, types of activity and types of raw materials or purchased products and services). This work was done with a specialized consultant, and included workshops with internal and external stakeholders. It took into account international country risk indicators established by a specialized third party. This process notably offers a support to Subsidiaries located in geographic areas at higher risk of impacts on human rights.

As a result, the following six salient risks were identified, divided among three key themes for the Company:

- **human rights in the workplace** of TotalEnergies' employees and those of its suppliers and other business partners:
  - forced labor and child labor,
  - discrimination, and
  - just and favorable conditions of work and safety.
- **human rights and local communities**:
  - access to land, and
  - the right to health and an adequate standard of living.
- **respect for human rights in security-related activities**:
  - the risk of misuse of force.


### 3.6.2.3 SUPPLIERS

The identification, analysis and prioritization of the risks of impacts on human rights, people's health and safety and the environment as a result of Suppliers' activities rely on a CSR mapping of the risks linked to TotalEnergies' procurement, as well as on country risk indicators.

The CSR mapping of the risks linked to TotalEnergies' procurement, by category of goods and services, which has been in place since 2012, allows the identification of the risks relating to human rights and social conditions and those relating to the environment that are associated with each procurement category. This mapping is regularly updated by TotalEnergies Global Procurement, the subsidiary dedicated to procurement, based on research conducted by AFNOR experts on the human rights and environmental risks associated with each procurement category and workshops with buyers of these categories whose practical experience and knowledge greatly enhance the results of initial research. The Company's human rights and environmental experts are also involved throughout the entire process of identification, analysis and prioritization of risks. This mapping includes particular risks relating to child labor, forced labor, working conditions, discrimination, workers' health and safety, as well as risks relating to pollution and adverse impacts to biodiversity. It is available to buyers.

Country risk indicators that supplement the CSR mapping of the risks linked to TotalEnergies' procurement are related to human rights and environmental country-related risks.

Cross-referencing the results of the CRS mapping of the risks linked to TotalEnergies' procurement with human rights and environmental country-related risk indicators aims to identify Suppliers the most at risk regarding human rights, health, safety and the environment, to prioritize actions towards these Suppliers.

## 3.6.3 Action principles and organization

TotalEnergies has defined in its referential framework principles which reflect the Company's values and aim at preventing impacts on human rights and health, safety and to the environment (the "Action Principles"). When the legal provisions applicable to Activities provide less protection than the Action Principles, TotalEnergies strives under all circumstances to give precedence to the latter, within the constraints of applicable regulations.

### 3.6.3.1 ORGANIZATION

TotalEnergies has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question.

The Action Principles are driven by the **Executive Committee.**

The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual ethics report to the Governance and Ethics Committee of the Board of Directors.

A **Strategy & Sustainability division** was created in September 2021, illustrating the importance of the sustainable development issues that are at the heart of TotalEnergies' strategy. This general division includes in particular:

- the **HSE division,** which brings together the Company's industrial health, safety, environmental and operational societal functions. Within this division, the HSE entities dedicated to the Exploration & Production, Integrated Gas, Renewables & Power, Refining & Chemicals and Marketing & Services segments are notably responsible for supporting the implementation of the Company's HSE policy. Furthermore, specific entities deal with the following areas: environmental and societal issues, major risks, safety at whealth, transportation, crisis management and pollution prevention, legislation and reporting, audits. TotalEnergies has set up an HSE Committee chaired by the Chairman and Chief Executive Officer and made up notably of the members of the Executive Committee and HSE managers (refer to point 3.6.2.1). Its mission is to ensure that safety is a shared value,
- the **Sustainability & Climate division,** whose mission includes to help implement TotalEnergies' climate and sustainable development (including human rights) road maps and environmental, social and governance (ESG) policies, with transparency as a guiding principle. In this division, the Human Rights department, which reports to the Vice-President of the Sustainability division, supports the Company's operational personnel with its expertise in implementing the Action Principles relating to human rights. This division also forms the link between the Company and civil society and is in charge of relations with non-governmental organizations (NGOs), major institutions or multi-lateral agencies at Company level. Also within this division, the Climate division is responsible for contributing to the implementation of TotalEnergies' Climate Road map, in line with its ambition to be carbon neutral (net zero emissions) by 2050, together with society.

Within the **People & Social Engagement division, the Strategy and Human Resources Policies division** is responsible in particular for defining TotalEnergies' human resources strategy and policies in line with the business challenges and the corporate project. In line with the multiple situations encountered in the field, it coordinates the diffusion and roll-out of new policies to support the various human resources departments in TotalEnergies' business segments. The Social Relations division is tasked with coordinating the Company's social relations policy, chairing the TotalEnergies European Works Council and negotiating within this scope.

The **Security division** is responsible for the protection of people, facilities and information, and pays particularly close attention to the protection of people and property, by conducting analyses and offering advice.

A dedicated cross-functional subsidiary, **TotalEnergies Global Procurement**, coordinates management of supplier relationships and provides in particular purchasing services for the Company's goods and services, whether for categories of products or services specific to one business activity or categories shared among several business activities[(1)].

This corporate organization acts in support of the business segments and Subsidiaries in the operational implementation of the Action Principles.

Within the business segments services and advice are offered to Subsidiaries to assist them in the operational implementation of TotalEnergies' requirements.

Depending on their size, type of activities and the risks to which they may be exposed, the Subsidiaries may have dedicated personnel for HSE, societal, human resources, ethical, security and procurement issues.

## 3.6.3.2 CODE OF CONDUCT

TotalEnergies' Vigilance Plan is based primarily on the Code of Conduct[(2)] which defines the Company's values, including safety and respect for others, and their application to human rights, the environment, and people's health and safety.

The Code particularly sets forth TotalEnergies' compliance with the following international standards:

- the principles of the Universal Declaration of Human Rights,
- the United Nations Guiding Principles on Business & Human Rights,
- the principles set out in the International Labor Organization's fundamental conventions,
- the principles of the United Nations Global Compact,
- the OECD Guidelines for Multinational Enterprises, and
- the Voluntary Principles on Security and Human Rights, or VPSHR.

The Code of Conduct, which can be accessed on TotalEnergies' website, is aimed at all employees and external stakeholders (host countries, local communities, customers, suppliers, industrial and commercial partners and shareholders).

## 3.6.3.3 HUMAN RIGHTS

In addition to the Code of Conduct, matters relating to respect for human rights are included in a number of internal rules, such as those relating to ethics, human resources, societal, security and procurement. In addition to these, there are a number of practical tools dedicated specifically to societal issues.

For example, a rule concerning stakeholder and local impact management describes TotalEnergies' requirements for a unified approach to managing the societal risks and impacts of its operations. This is based on an assessment of the sensitivity of the societal context and the impacts relating to operations. Furthermore, the Charter of Principles and Guidelines regarding indigenous and tribal peoples states how TotalEnergies endeavors to know and understand the legitimate requirements of the communities living in its Subsidiaries' sphere of activities.

TotalEnergies' charters and rules are supplemented by guides and manuals at Company level or at the level of the business segment, which serve as reference documents for Subsidiaries on meeting requirements. Thus, there are guides relating to carrying out societal impact assessments and impact assessments on human rights, managing the local societal approach, and developing local content in projects and to land acquisition and resettlement where displacement of people, their assets and livelihoods are involved.

General specifications define more technical requirements, such as the implementation of the social baseline study and analysis of the societal impact.

(1) Present in close to 130 countries, the Company currently works with a network of more than 100,000 suppliers.
(2) SunPower has its own code of conduct and ethics.

As regards community grievance management, a guide describes the methodology and procedures for managing individual and collective grievances resulting from Activities, based on the United Nations Guiding Principles on Business and Human Rights eight effectiveness criteria.

Additionally, requirements relating to the implementation of VPSHR in conducting security operations are detailed in an internal rule concerning risk assessment, preliminary verifications, formalization of the relationship with security providers, training and management of possible incidents.

### 3.6.3.4 SAFETY, HEALTH AND THE ENVIRONMENT

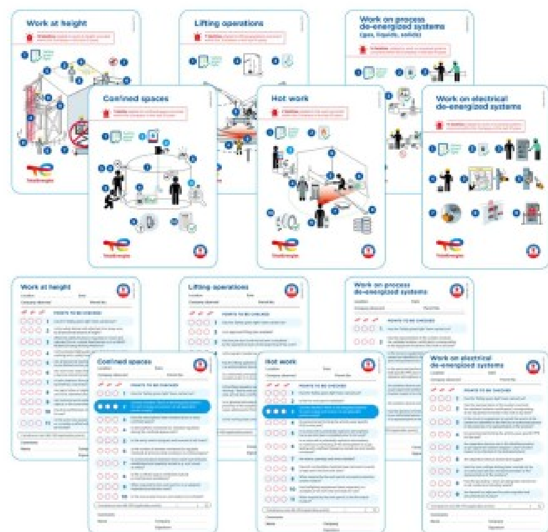
TotalEnergies conducts its operations on the basis of its **Safety Health Environment & Quality Charter** (available on TotalEnergies' website). It forms the common foundation for TotalEnergies' management frameworks, and sets out the basic principles applicable to safety, security, health, the environment, quality and societal commitment. TotalEnergies' directives and rules define the minimum requirements expected. General specifications, guides and manuals are available to implement these directives and rules. The Subsidiaries incorporate these requirements into their own management systems, whilst taking into account local specificities and regulatory requirements. The TotalEnergies framework is available to all employees.

An HSE reference framework common to all the business segments has been rolled out in order to give greater overall consistency to TotalEnergies' operations, while taking into account the specificities of each business segment. This reference framework, called One MAESTRO (Management and Expectations Standards Toward Robust Operations), applies to the Subsidiaries as well as their operated sites as defined in point 5.11 of chapter 5 (scope of One MAESTRO).

One MAESTRO is structured around ten fundamental principles: (1) leadership and management commitment, (2) compliance with laws, regulations and Company requirements, (3) risk management, (4) operational accountability, (5) contractors and suppliers, (6) expertise and training, (7) emergency preparedness, (8) learning from events, (9) monitoring, audit and inspection, and (10) performance improvement.

In addition, with regard to safety at work, the Company has ***12 Golden Rules*** since 2010, reviewed in 2022 for them to be more directly understandable by players on site and to facilitate their appropriation. These Golden Rules are simple, memorizable by everyone and representative of a significant number of accidents at the workplace and must be strictly obeyed by all personnel, both employees and external companies, in all the countries and in all the Company's activities. Widely circulated, the aim of the Golden Rules is to ensure day-to-day safety during the conduct of operations and on sites with a common objective : "Zero fatal accidents". These rules cover the following subjects:


TotalEnergies has also rolled out the ***Our lives first: zero fatal accidents*** program, which introduced joint safety tours with external companies, the establishment, in the work permit process, of a ritual prior to work on all the TotalEnergies' operated sites concerned (Safety green light - Life Saving Checks), and a tool to intensify checks in the field and measure compliance with safety rules for the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces and hot work.




In addition, anyone, irrespective of their level in the organization, is authorized to interrupt work in progress, if they notice a high-risk situation, by using their ***Stop Card***.


The *Stop Card* is a plastic-coated card. It grants its holder the authority to intervene and stop work in progress, if he/she notices high-risk actions or situations, or situations that may lead to an accident, with an assurance that no disciplinary action will be taken as a result, even if the intervention turns out to have been unnecessary.

If an action or situation seems hazardous for one or more people, a facility or the environment, the *Stop Card* provides a means of intervening. Uses of the Stop Card can range from a simple question to check that no risks are present, to interrupting the work in progress.

This interruption offers an opportunity to exchange with the colleagues involved (members of staff and their supervisor) with a view of finding a solution to the perceived problem. If necessary, changes are made to the way of working before resuming the work in progress.

If the problem cannot be solved immediately, the work is suspended, pending the implementation of suitable measures.

## PREVENTING THE OCCURRENCE OF MAJOR INDUSTRIAL ACCIDENTS

To **prevent the occurrence of a major industrial accident** such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures that apply to the Company's operated activities that are exposed to such risks. The Major Risks division of the Company's HSE division provides support in the application of this policy.

TotalEnergies' policy for the management of major industrial accident risks applies from the facilities design stage as well as during their lifecycle in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures. They may be technical or organizational. These analyses are updated periodically, at least every five years, or when facilities are modified.

**With regard to the design and construction of facilities**, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.

**With regard to the management of operations and integrity of facilities operated by the Company**, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a work permit, the process of which, from preparation through to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings. For example, in order to control the integrity of pipelines operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. In areas with high human or environmental risks identified by the risk analysis, these controls and their frequency are reinforced.

## PREVENTING TRANSPORT ACCIDENTS

In the field of **road transportation**, the Company has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Company's personnel and personnel of contractors working for Company entities. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for Company vehicles (in particular, light vehicles must pass NCAP 5* tests). Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity. Thus, in countries with high road traffic risks, vehicles are equipped with recorders of driving inputs and the conduct of drivers is monitored.

For **maritime and inland waterways transportation**, the process and criteria for selecting ships and barges are defined by the team in charge of vetting. These criteria take into account not only the ship or barge but also the crew, ensuring that the crew has the qualifications and training required under the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) convention. These same teams also verify the application of the safety management system defined for ships by the ISM (International Safety Management) Code of the IMO (International Maritime Organization) as well as industry recommendations such as OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators), including those which take into account the human factor especially for the prevention of accidents to people on board ships or barges. In addition, TotalEnergies' chartering contracts require that the crew belong to a recognized trade union affiliated to the ITF (International Transport Workers' Federation). The ITF represents the interests of transportation workers' unions in bodies that make decisions about jobs, conditions of employment or safety in the transportation sector, such as the International Labour Organization (ILO) or the IMO.

With regard to **air transportation**, a carrier selection process exists to limit the risks relating to travel by Company and contractors' employees, if their journey is organized by TotalEnergies. This process is based on data from recognized international organizations: ICAO (International Civil Aviation Organization), IOSA (IATA Operational Safety Audit), IOGP (International Association of Oil and Gas Producers), and civil aviation authorities' recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Company.

## PREVENTING OCCUPATIONAL ACCIDENTS

TotalEnergies has a **policy for preventing occupational accidents** that applies to all employees of Subsidiaries and employees of contractors working on a site operated by one of these Subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.

As part of the policy for preventing workplace accidents, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for employees of the Company and of the contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also implements a process for analyzing accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

The Company's HSE division includes a division of specialists in high-risk operations (work at height, lifting, confined spaces, etc.) that consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for Subsidiaries in their own voluntary approach to strengthen their safety culture. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors of a work situation and defining appropriate measures.

## PREVENTING OCCUPATIONAL HEALTH RISKS

With regard to the **prevention of occupational health risks**, the One MAESTRO framework provides that Subsidiaries of the Company identify and assess risks at the workplace in the short, medium and long term. To do this, the framework provides application guides for implementation. The analysis of these health risks relates to chemical, physical, biological, ergonomic and mental risks. This results in the roll-out of an action plan. An Industrial Health correspondent in Subsidiaries is identified and tasked with implementing the policy for identifying and assessing work-related health risks. The actions are integrated into the entities' HSE action plans and can be audited as part of the One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Company entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Company entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages. First, hazardous products such as carcinogenic, mutagenic or toxic to reproduction (CMR) chemicals are listed and their risks identified. Second, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or mitigation measures are implemented in order to control the risk. Last, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the Subsidiary.

In addition to the One MAESTRO reference framework, the Company has a **health reference framework**, which was comprehensively reviewed and approved by the President, People & Social Engagement in 2022.

The health policy is part of the Company's approach to sustainable development and includes occupational health requirements that apply to the Company's employees as part of their professional activity, as well as to the employees of external companies working on its sites.

The aim of occupational health protection is to protect the physical and mental health of the Company's employees by implementing an appropriate risk analysis and prevention policy. It also aims to guarantee their fitness for work and to avoid accidents at work and occupational diseases.

## LIMITING THE ENVIRONMENTAL FOOTPRINT OF TotalEnergies ACTIVITIES

TotalEnergies implements a policy of avoiding, reducing and, where necessary, offsetting the environmental footprint of its operations.

### Water and air protection

The Company's operations generate discharges such as smokes from combustion plants, emissions into the air from the various conversion processes and discharges of wastewater. In addition to complying with applicable legislation, TotalEnergies has drawn up rules and guidelines that the Subsidiaries can use to limit the quantities discharged. TotalEnergies has set itself targets for reducing sulfur dioxide ($SO_2$) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites are equipped with reduction systems that include organizational measures (such as managing the content of sulfur dioxide ($SO_2$) of fuels and the improvement of combustion process management, etc.) and specific technical measures depending on the sites (wastewater treatment plants, using low $NO_x$ burners and electrostatic scrubbers, etc.) All refineries controlled by the Company currently have this type of system.

For new facilities developed by the Company, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of these emissions.

### Soil protection

The risks of soil pollution related to TotalEnergies' operations come mainly from accidental spills and waste storage. TotalEnergies has drawn up a guide that the Subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:

- preventing leaks, by implementing, in the majority of sites, industry best practices in engineering, operations and transport,
- carrying out maintenance at appropriate frequency to minimize the risk of leaks,
- overall monitoring of the environment to identify any soil and groundwater pollution, and
- managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Company rule defines the following minimum requirements:

- systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination,
- assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site), and
- management of health or environmental impacts identified based on the use of the site.

Last, decommissioned facilities operated by the Company (i.e., chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, be sources of chronic or accidental pollution. In addition to the appropriate management of the waste associated with the dismantling and securing of sites, TotalEnergies has created a soil and groundwater depollution policy based on the assessment and management of the risks that such pollution may incur. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redeveloping Company activities (solar, reforestation, etc.) and protecting biodiversity. Specialized entities of the Company are supervising the sites' remediation operations.

### MANAGING DAMAGE ON BIODIVERSITY AND ECOSYSTEMS DURING PROJECTS AND OPERATIONS

In 2016, the Company pledged to contribute to the achievement of the UN Sustainable Development Goals (SDGs), including those relating to biodiversity. In 2018, TotalEnergies signed up to the act4nature initiative promoted by the French Association of Enterprises for the Environment, now act4nature international.

In 2020, TotalEnergies set a new biodiversity ambition on the occasion of preparing for the United Nations' global biodiversity plan, which aims to protect global biodiversity and updates its public commitments concerning biodiversity. This ambition has been factored into the One MAESTRO reference framework. The core principles of this ambition are described in point 5.5.4 of chapter 5, which includes the following principles of action:

- the Company has made a commitment not to conduct any exploration activities in oil fields under sea ice in the Arctic,
- the Company recognizes the universal value of UNESCO's world natural heritage sites, by not conducting oil and gas exploration or production activity in these areas,
- for each new project located in an IUCN (International Union for Conservation of Nature) protected areas category I or II or a Ramsar site, the Company undertakes to implement measures to generate a net positive impact on biodiversity.

### LIMITING RISKS FOR THE HEALTH AND SAFETY OF CONSUMERS

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TotalEnergies pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the life cycle of these products. TotalEnergies has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety datasheets that accompany the petroleum and chemical products marketed by TotalEnergies (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Company. The task of these teams is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. They therefore draw up the material safety datasheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and ensure REACH[(1)] registration if necessary. Thanks to their scientific and regulatory monitoring, they ensure that safety data sheets, certificates and registrations are kept up to date so that they remain compliant with current regulations.

Governance of the process is rounded off within the business units or Subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a product manager who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Company's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety datasheets for oil and gas produced by the Exploration & Production Subsidiaries are prepared by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is ensured by the Subsidiary.

For the Integrated Gas, Renewables & Power segment, the implementation of the Company's requirements for the marketing of chemical or petroleum products is carried out by each Subsidiary concerned according to its own organization.

## 3.6.3.5 FUNDAMENTAL PRINCIPLES OF PURCHASING

For procurement, requirements relating to respect by the Suppliers of human rights, health, safety and the environment are specified in an internal rule defining the procurement principles for goods and services, including the Fundamental Principles of Purchasing, which reflect the principles of the Code of Conduct with regard to Suppliers. The relationship between the Company and its Suppliers is based on adhesion to these Fundamental Principles of Purchasing[(2)].

The Fundamental Principles of Purchasing lay out the commitments that TotalEnergies expects from its suppliers in the following areas: respect for human rights at work, protection of health, safety and security, action in favor of climate, preservation of the environment, prevention of corruption, conflicts of interest and fraud, respect for competition law, as well as the promotion of economic and social development.

(1) Registration, Evaluation, Authorization and restriction of CHemicals (REACH) EU Regulation.
(2) Saft Groupe and SunPower have defined fundamental principles of procurement specific to their activities (for example: SunPower Supplier Sustainability Guidelines).

Subsidiaries ensure that the requirements of the Fundamental Principles of Purchasing are communicated to Suppliers and endeavor to include them in contracts or replace them with equivalent principles at the end of negotiation. These principles are also accessible to all suppliers in French and English on TotalEnergies' website.

#### 3.6.3.6 INTERNAL CONTROL FRAMEWORK

TotalEnergies consistently ensures that an internal control framework, based on the referential of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) is in place.

TotalEnergies has a reference framework that is supplemented by a series of practical recommendations and return on experience. The structure of this reference framework reflects that of TotalEnergies' organization: a Company level framework, frameworks by business segment, and a specific framework for each significant operational entity.

## 3.6.4 Assessment procedures

TotalEnergies has defined procedures to assess its Subsidiaries and Suppliers, including in collaboration with independent bodies, which help identify and prevent risks of impacts on human rights, health, safety and the environment. **Staff training, particularly of managers**, is the **necessary** complement to assist the Subsidiaries in the implementation of the TotalEnergies Action Principles (refer to point 3.6.5 in this chapter).

### 3.6.4.1 PROCEDURES FOR ASSESSING SUBSIDIARIES

#### HSE ASSESSMENTS

Assessment of the implementation of the HSE framework involves self-assessment by the Subsidiary and HSE audits by experts from TotalEnergies' HSE division.

Subsidiaries must undertake a **self-assessment** at least every two years.

The Audit and return on experience unit of the HSE division conducts an **HSE audit** at least every five years, according to an audit protocol. These audits deal with a set of activities and facilities governed by a single HSE management system. They address notably: management involvement, compliance with applicable rules, risk management, individual involvement at every level, relationships with suppliers present on the Subsidiary's site, skills, preparations for emergency situations, return on experience, self-assessment by the Subsidiary and the continual improvement process. The Company's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standards ISO 14001:2015 (environmental management) and ISO 45001:2018 (occupational health and safety management). The audit protocol is applied in full during self-assessments and according to a risk-based approach during audits. The goal is to identify potential gaps in the implementation of the rules by the Subsidiaries and to enable them to define and implement improvement actions. The progress of improvement actions is reported to management at the appropriate level in the management chain. The status of actions taken following audit observations beyond a defined severity level is reported to the business segment and HSE divisions every semester.

The HSE division defines the rule and reporting guide and ensures the implementation of the standards for the consolidation of data, provided by the Subsidiaries, related to the Company's greenhouse gas (GHG) emissions.

#### ASSESSMENTS REGARDING HUMAN RIGHTS

The Company appoints a service provider specialized in **ethics and human rights assessments** to check the proper application in the Subsidiaries of the principles included in the Code of Conduct. These assessments include criteria relating to human rights. As part of the process, a panel of employees and external stakeholders of the Subsidiary is questioned in order to understand how its Activities are perceived locally. The content of the assessment is adapted to each Subsidiary and may address issues such as the involvement of Subsidiary management, employee awareness of the Code of Conduct, employee working conditions, supplier selection procedures, security measures taken or proactive collaboration with local stakeholders. Following the assessment, the Subsidiary defines and implements an action plan, and a monitoring procedure is put in place.

At project level, TotalEnergies conducts **human rights impact assessments** of the Company's Activities in sensitive situations (mainly based on criteria linked to the risks to human rights in each particular country) with independent organizations specialized in human rights, or in the prevention and management of conflicts between corporations and local communities. These assessments take account of the salient issues identified by the Company (refer to point 3.6.2.2 in this chapter).

**Security**, which is identified as a potential salient risk in the map of the risks of impacts on human rights, is subject to **risk assessment processes** at an entity and project level. The Security division is notably tasked with ensuring the implementation of TotalEnergies' commitments to enforce the Voluntary Principles on Security and Human Rights (VPSHR), a multi-stakeholder initiative that TotalEnergies joined in 2012, involving governments, companies and associations, that addresses relations with government security forces or private security companies. As part of this process, the Subsidiary undertakes an assessment of risks in relation to both security and human rights. In addition, a VPSHR self-diagnostic tool has been developed to enable Subsidiaries to assess their own implementation of the VPSHR and to identify areas of improvement. This tool measures the Subsidiary's commitment to VPSHR, personnel training and relations with government security forces and private security companies.

Finally, an **annual self-assessment questionnaire** enables the Subsidiaries in the One MAESTRO scope to evaluate the degree of deployment of the **societal initiative** on the ground. Actions involving dialogue, impact management and the contribution to socioeconomic and cultural development are recorded and analyzed.

#### 3.6.4.2 PROCEDURES FOR ASSESSING SUPPLIERS

During the pre-contractual phase, the **pre-qualification procedure for Suppliers** of goods and services, concerning six criteria (administrative, anti-corruption, technical, HSE, financial, and sustainability) allows the evaluation of Suppliers as for the respect of human rights at work, safety, health and the environment. This process has been harmonized at Company level[1]. A risk analysis is carried out for each Supplier, followed where deemed necessary by a detailed assessment. The detailed assessment includes questionnaires on each of the aforementioned issues and, if needed, results in an action plan, a technical inspection of the site by employees or an audit of working conditions carried out by a consultant. An IT pre-qualification tool has been in place since 2019 and is being gradually deployed, initially targeting significant entities.

During the contractual relationship, TotalEnergies has put in place a **Supplier assessment** procedure with a view to identifying and preventing risks of severe impacts on human rights and fundamental freedoms, and people's health and safety. The Company periodically audits Suppliers to assess working conditions. A targeted annual audit plan is defined every year and includes Suppliers at risk with respect to human rights with the objective of auditing strategic Suppliers as well as Suppliers at risk every three years.

At the Subsidiary level, the pre-qualification process may be complemented by **specific verifications of compliance with the VPSHR** by a Supplier. When private security companies are used to protect a Subsidiary, preliminary checks are made. They include a review of the recruitment process, technical and professional training (notably on the local context, the use of force and the respect for the rights of individuals), working conditions and the company's reputation. In addition, the proposed Supplier's employees are screened for previous conviction or implication in human rights violations.

Where deemed necessary in certain contexts such as palm oil or vetting, dedicated teams may be set up to conduct the pre-qualification process.

The unit put in place in the Company for the selection of **Suppliers of palm oil** seeks to ensure that the palm oil purchased is certified sustainable in accordance with the criteria required by the European Union (ISCC EU certification). These criteria include a review of carbon footprint, the preservation of forests, good use of land and respect for human rights. In addition to this mandatory certification, Suppliers must commit to principles at least equivalent to the Fundamental Principles of Purchasing and be members of the Roundtable on Sustainable Palm Oil (RSPO). TotalEnergies is committed to ceasing its palm oil supplies in 2023.

The **Vetting department of Trading & Shipping** defines and applies the selection criteria for the tankers and barges used to transport the Company's liquid petroleum or chemical and gas products. This review aims notably at ascertaining the proposed Supplier's technical qualities relative to internationally recognized industry practices, the crews' experience, and the quality of the shipowners' technical management. A green light from the Vetting department, granted strictly on the basis of technical data and independently of business considerations, is required for all ships and barges chartered by a Subsidiary, third parties transporting cargo belonging to TotalEnergies, or ships and barges that stop over at a terminal operated by a Subsidiary. Audits of shipowners also allows the Company to assess the quality of the technical management systems implemented by operators, crew selection and training, as well as the support provided to vessels.

TotalEnergies is actively involved in the Ship Inspection Report (SIRE), which was set up by the Oil Companies International Marine Forum (OCIMF) to allow the sharing of inspection reports amongst international oil and gas companies, thus contributing to the continuous improvement of safety in oil, gas and chemical shipping.

Last, since 2012, a large-scale inspection program of road transportation contractors has also been rolled out by Marketing & Services, the segment with the most road transportation within the Company, with the delivery of products to service stations and consumers. This program has been extended to the product transportation activities of the Polymers division of the Refining-Chemicals segment, to the liquid sulfur transportation activities of the Integrated Gas, Renewables & Power segment, and is being progressively extended to the Exploration & Production segment. It calls on independent transportation experts who inspect the practices and processes adopted by transportation contractors with regard to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the freight company may be excluded from the list of approved transportation contractors.

## 3.6.5 Actions to mitigate risks and prevent severe impacts

Specific actions are taken to mitigate risks and prevent severe impacts, drawing mainly on the Action Principles and assessments described above.

They are also based on return on experience from HSE incidents and include training of TotalEnergies employees, programs to raise the awareness of Suppliers, as well as measures to manage emergency and crisis situations.

With respect to climate, which is a global risk for the planet resulting from all human activities, the Company has structured its approach in order to integrate climate challenges into its strategy and has defined specific objectives within different timeframes, in order to control and reduce the GHG emissions resulting from its Activities (Scope 1+2). These are reported in section 3.6.8.4 of this chapter.

#### 3.6.5.1 RETURN ON EXPERIENCE

The Company implements a process for the analysis of accidents, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event.

A return on experience may include an analysis of the incident including of its severity and result in communication to the relevant stakeholders or a wider population within the Company. The purpose of sharing return on experience is to ensure that Subsidiaries are informed and share lessons learned from the incident.

By way of example, a near-miss with a high severity potential undergoes an analysis similar to that of a severe accident. This analysis is considered an essential factor of progress. Depending on its relevance to the other TotalEnergies entities, it may trigger a safety alert and the communication of a formal return on experience. More generally, the corporate culture encourages formal and informal return on experience on all matters relevant to the Vigilance Plan.

(1) Crude oil and petroleum product purchasing by Trading & Shipping, gas and electricity purchasing by the subsidiary TotalEnergies Gas & Power Ltd, and the purchasing made by the subsidiaries Hutchinson, Saft Groupe and SunPower are subject to supplier pre-qualification processes specific to their organizations.

### 3.6.5.2 AWARENESS-RAISING AND TRAINING OF TotalEnergies' EMPLOYEES

The Company has a variety of communication and information channels in place, enabling all employees of TotalEnergies SE and its Subsidiaries to have access to the Action Principles defined by the Company in relation to human rights, health, safety and the environment.

Each employee receives a copy of the **Code of Conduct** to raise awareness of the Company's values, including safety and respect for others, which includes respect for human rights. The Code of Conduct is also available to them on the TotalEnergies intranet website in more than fifteen languages. Every new employee is required to read the Code of Conduct (and must certify to having done so). The TotalEnergies induction day includes an initiation to ethics and human rights and an online training on the challenges of business ethics is also available.

**HSE training courses**, incorporating on-line educational programs as well as technical training tailored to the various Activities, are offered to all Company employees. Programs dedicated to health, safety and the environment are deployed. They may be general or specific to a type of activity or subject area. By way of illustration, the general training depends on the participant's level of responsibility and experience in the Company: *Safety Leadership for Executives*, *HSE training for managers*, and training for new recruits.

These training courses include since 2020 training actions related to climate challenges dedicated to all Company employees. A specific module is dedicated to Company senior executives and managers.

In the Subsidiaries as well as head office, teams regularly engage in crisis management exercises, the scenarios of which are based on potential incidents identified in the risk analysis. Dedicated training (initial and refresher training) also contributes to preparing employees for potential crises including in relation to the various roles played by members of the crisis team (for example crisis team leader, liaison with operations, experts and communicators etc.).

**Training programs dedicated to human rights** have been set up for senior executives, site directors and employees most exposed to these issues. Awareness-raising sessions are organized regularly for employees, for example as part of ethical assessments of Subsidiaries.

The Human Rights department is developing a training plan for Company employees to encourage understanding of issues relating to human rights and thereby better manage the associated risks. This training plan is rolled out as a priority among employees who are most exposed to risks linked to human rights.

Specific training modules explaining TotalEnergies' ethical commitments and the Fundamental Principles of Purchasing have also been developed for the Company's procurement teams. A training on responsible procurement is also mandatory for the buyers of TotalEnergies Global Procurement.

The Security division developed an online **training including a module on the VPSHR** for security managers in the Subsidiaries and provides training materials for the Company's personnel. Local visits are also organized to deliver in-person training in the training in the Subsidiaries.

**Trainings on societal** are provided to raise awareness of the personnel dedicated to this area of expertise, but also to other personnel outside Societal teams.

Internal channels of communication, such as websites accessible to most employees, are also used to **raise employee awareness** of matters pertaining to human rights. Dedicated web pages on ethics and the respect for human rights present the priority areas identified by TotalEnergies. These web pages have several goals: to explain the Action Principles, present how TotalEnergies implements these principles and to help employees adopt the ethical conduct expected of them in their everyday work.

**Events** such as the annual ***Business Ethics Day*** are used to raise awareness among employees of TotalEnergies SE and its Subsidiaries.

A **Guide to Human Rights** is also made available to employees and stakeholders. Its goal is to raise TotalEnergies employees' awareness on issues relating to human rights in its industry (at work, with local communities and in relation to security) and it provides guidance as to the appropriate behavior to adopt in their activities and relationships with stakeholders. It includes case studies, specifically on Uganda. This guide serves as a reminder of the Company's commitments in relation to human rights. It offers proposed answers to common questions and concerns about human rights, notably child labor, forced labor, discriminatory practices and collective negotiations.

The **Practical guide to dealing with religious questions**, published in 2017, aims to provide practical solutions to issues raised by Company employees and managers worldwide. It draws on the experiences of the business segments in various countries and encourages dialogue, respect and listening as a way to find solutions suited to the local context. Many internal and external experts contributed to this document, including representatives of various religious communities. This guide has been translated into ten languages. It is available on the website dedicated to human rights and is also distributed at training courses.

The HSE Division organizes the Company's **World Safety Day** and **World Environment Day** in order to bring teams on board and raise their awareness of ways of implementing the Action Principles. Various **HSE guides** exist within the One MAESTRO reference framework to share HSE best practices with the Company's Subsidiaries. In addition, periodic HSE communications are published throughout the year (seminars, webinars, symposia). Safety culture is reinforced on a day-to-day basis by the Company's employees through safety moments at the beginning of meetings or before hazardous operations, consisting of a short discussion to reiterate the key safety messages and align participants with mutual commitments. A similar approach is being deployed to introduce sustainability moments.

### 3.6.5.3 AWARENESS-RAISING AND TRAINING OF SUPPLIERS

The **Fundamental principles of purchasing** constitute a contractual commitment by Suppliers and are also a means to raise awareness among Suppliers, notably on HSE and human rights issues. They are communicated to Suppliers at the time of their integration in the Supplier database. A brochure explaining these principles in detail is also handed out to Suppliers at annual meetings or events such as *Suppliers Day*. The Fundamental Principles of Purchasing are also available on the TotalEnergies website. A **practical guide on respect of human rights at work**, intended for Suppliers, is shared with them and is also available on TotalEnergies' website.

Training actions are also carried out for Suppliers, for example **training on responsible security and the VPSHR** delivered to employees of security service providers. Contracts with these service providers mention compliance with the VPSHR and the need to train their personnel about the VPSHR. Additionally, the Security division may deliver this training directly to security service providers.

Suppliers working on Subsidiary sites are made aware of the risks to health, safety and the environment of the activities of the site. They receive support in the management of risks related to their activities, those of the site and any potential interactions, such as in the work permit process or during site safety inspections.

### 3.6.5.4 RESPONSES TO EMERGENCY OR CRISIS SITUATIONS

Crisis management is organized to ensure sufficient preparedness and an efficient response to a crisis or emergency event.

In order to manage any major industrial accident efficiently, TotalEnergies has implemented a global crisis management system, based notably on a 24/7 on-call system, a set of unified procedures deployed in the Subsidiaries and on a dedicated crisis management center that makes it possible to manage two simultaneous crises from head office. The framework requires Subsidiaries to have in place plans and procedures for interventions in the event of leaks, fires or explosions and to test them at regular intervals.

## 3.6.6 Whistle-blowing mechanisms

TotalEnergies has several whistle-blowing mechanisms that are open **to employees, Suppliers and third parties**.

To support employees on a day-to-day basis, the Company encourages a climate of dialogue and trust enabling individuals to express their opinions and concerns. Employees can turn to their line manager, an HR or other manager, their Compliance Officer or their Ethics Officer.

**The Company's employees, Suppliers, as well as any other stakeholder** can contact the **Ethics Committee** to ask questions or report any incident involving a risk of non-compliance with the Code of Conduct by using a generic email address (ethics@totalenergies.com). This system was set up in 2008, in cooperation with TotalEnergies trade unions organizations on a European level. The procedure for collecting and processing of ethical complaints, available on TotalEnergies' website, describes this mechanism which provides measures to protect whistleblowers including the non-disclosure of their identity, the confidentiality of the procedure for collecting, processing, and closing of the complaints and the prohibition of any retaliation measures against whistleblowers, subject to sanctions. The Ethics Committee is a central structure, in which all business segments of TotalEnergies are represented. All its members are TotalEnergies employees with a good knowledge of its Activities and have demonstrated the independence and impartiality necessary for the performance of their duties. The Ethics Committee assures compliance with the Code of Conduct and ensures its proper implementation. It is assisted in its work by the relevant departments, as well as by a network of local Ethics Officers. The Chairperson of the Ethics Commitee, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, submits an annual Ethics report to the Governance and Ethics Committee of the Board of Directors. The members of the Ethics Committee are subject to a confidentiality obligation. The Committee ensures the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The system is supplemented by specific whistle-blowing mechanisms implemented at certain Subsidiaries.

Suppliers can also contact the **internal supplier mediator** using a generic email address (mediation.fournisseurs@totalenergies.com). Available to Suppliers and procurement teams, the mediator's role is to restore dialogue and help find solutions.

Based on the United Nations Guiding Principles on Business & Human Rights, the One MAESTRO framework requires TotalEnergies' operational entities to deploy procedures to **manage stakeholder grievances** related to the Subsidiary's activities (excluding business claims). This provides residents and local communities with a preferential channel to voice their concerns and grievances. Handling these grievances locally makes it possible to offer a response to anyone who feels that they have been negatively affected by the Activities and to improve internal processes in order to reduce impacts that may be caused by the Activities. Managing grievances consists of: informing the stakeholders of this free process; receiving and registering grievances; acknowledging receipt of the grievances and informing the stakeholders about the follow-up actions; if necessary, proposing a means of settling the grievances in collaboration with the stakeholders and monitoring the handling of the grievance. This process is regularly analyzed to see where improvements can be made.

These mechanisms can also be used to implement the **VPSHR**. In addition, **in the event of an incident, a reporting process** requires the Security division to be informed and an internal analysis to be performed to establish the facts, resulting in a final report. This allows the Subsidiary to re-assess its VPSHR process and to take measures to reduce the risk of incidents.

## 3.6.7 Monitoring procedures

Multi-disciplinary committees review the implementation of measures within their purview. Indicators are used to measure the effectiveness of the measures, progress made and to identify ways of improvement.

#### COMMITTEES

The **Ethics Committee** is particularly involved in monitoring compliance with the Code of Conduct and can be called upon for advice on its implementation.

The **Human Rights Steering Committee** is made up of representatives from different divisions (including security, procurement and societal) and business segments. It is chaired by the head of TotalEnergies' Sustainability & Climate division. It meets four times a year to coordinate the actions on human rights taken by the business segments and the Subsidiaries, as part of the implementation of the human rights road map submitted to the Executive Committee. All Country Chairs contribute to this monitoring process, notably by acting as the local point of contact for the Security division with respect to compliance with the VPSHR.

Representatives of the Management Committee of TotalEnergies Global Procurement and of the Sustainability & Climate, HSE and Legal divisions as well as of the Ethics Committee meet at least once a year within the **Sustainable Procurement Committee**, which monitors the effective implementation of the Responsible Procurement program.

The **HSE division** has set up cross-functional committees of experts, including in the fields of safety, the environment and crisis management, and monitors the ongoing coordination of HSE issues.

**REPORTING**

The system of internal reporting and indicators for monitoring implementation of the actions undertaken in TotalEnergies in these areas is based on:

- for social indicators (including health in particular), a guide entitled the Corporate Social Reporting Protocol and Methodology,
- for safety indicators, a Company rule regarding HSE event and statistical reporting; a return on experience analysis process identifies, notably, events for which a formalized analysis report is required in order to draw lessons in terms of design and operation, and
- for environmental indicators, a Company reporting procedure, together with activity-specific instructions.

Consolidated objectives are defined for each key indicator and reviewed annually. The business segments apply these indicators as appropriate to their area of responsibility, analyze the results and set out a plan of action.

## 3.6.8 Implementation report[1]

### 3.6.8.1 HUMAN RIGHTS

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

**SUBSIDIARY ASSESSMENTS**

TotalEnergies conducts assessments and impact assessments of various kinds:

- Ethics and human rights assessments of Subsidiaries, in particular regarding the working conditions of TotalEnergies employees,
- Impact assessments to analyze the challenges and the societal context of industrial projects, supplemented, if necessary, by specific impact assessments on human rights,
- Subsidiary self-assessments.

**Ethics and human rights assessments**

In addition to the audits and assistance missions carried out by the Audit and Internal Control Division, which cover certain human rights-related issues, the ethics and human rights-related practices of TotalEnergies' entities are regularly assessed by independent third parties and qualified experts.

Assessed entities are identified according to several criteria, including the level of risk of human rights violation in each country, the number of alerts received the previous year and the date of the Subsidiary's last assessment. These assessments help identify Subsidiaries' best practices, share them within the Company and identify areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct.

In 2022, five ethics and human rights assessments were conducted. They involved five Subsidiaries, totaling approximately 2,600 employees in Argentina, Mexico, Qatar and India. These assessments confirmed that the Code of Conduct has been taken on board by employees.

The follow-up of the action plan put in place further to the assessments in 2020 and 2021 in the Subsidiaries in Kenya and France (Pau) was also carried out in 2022. It is planned to follow up the action plan concerning the Subsidiary in Poland in 2023.

**Impact assessments of industrial projects**

When the decision is taken to develop an industrial project, a detailed **baseline study** is conducted to identify in advance the stakeholders potentially affected, describe the local context and assess the main socio-economic and cultural stakes (risks and opportunities) in the affected area. A **societal impact assessment** is then conducted to assess and analyze the opportunities and the direct, indirect or cumulative risks of the project in the short, medium and long term. In 2022, 129 of these studies were initiated or carried out.

In addition to these impact assessments, **specific human rights impact assessments** may also be conducted in high-risk areas or conflict zones with the support of independent experts.

(1) In accordance with Article L.225-102-4 of the French Commercial Code, the report on the effective implementation of the Vigilance Plan is presented below. Since the identification of risks and the prevention of severe impacts on human rights, human health and safety and the environment overlap partially with certain risks covered in the non-financial performance statement (refer to chapter 5), TotalEnergies has chosen to report below on the implementation of its Vigilance Plan by incorporating certain aspects of its non-financial performance statement although the latter includes risks of varying degrees.

**Example: Tilenga and EACOP projects, Uganda and Tanzania**

In February 2022 the final investment decision for the Lake Albert Resources Development Project was taken, including both the Tilenga upstream oil project (operated by TotalEnergies EP Uganda) and the construction of the East African Crude Oil Pipeline (EACOP) in Uganda and Tanzania (in which TotalEnergies Holdings EACOP is a major shareholder).

All partners committed to implementing these projects in an exemplary manner, taking into consideration the environmental and biodiversity stakes, as well as the rights of the concerned communities, in accordance with the stringent performance standards of the International Finance Corporation (IFC).

**Transparency**

In accordance with its guiding principle of transparency in engaging with civil society, since March 2021 TotalEnergies publishes relevant studies, independent third-party reviews and social and environmental action plans related to both the Tilenga and EACOP projects. Such independent reviews help ensure that the projects are carried out in compliance with good international industry practices. Alongside the ongoing dialogue with the local communities, these reviews also allow potential improvements to be identified.

**Human Rights Due Diligence**

For Tilenga as well as for EACOP, human rights assessments have been carried out as part of the social and environmental impact assessments. In addition, stand-alone human rights impact assessments were published in September 2018 for EACOP and in July 2022 for Tilenga.

Dedicated human rights teams in both projects have put in place action plans on the basis of these impact assessments and monitor their implementation. Human Rights Steering Committees have been set up for both projects to provide governance and monitoring. Processes are in place for investigation and fact-finding with respect to human rights allegations.

Both the Tilenga and EACOP projects have published policies in 2022 setting out their commitment to human rights through all their activities.

**Stakeholder Engagement**

Regular stakeholder engagement occurs with the full spectrum of project stakeholders including Ugandan and Tanzanian local, national and regional governmental authorities; Project-affected Communities (PACs) and Project Affected People (PAPs)[1]; traditional and religious authorities; local businesses and tourism operators; developers of associated facilities; CSOs and NGOs; academic and research organizations; and Intergovernmental organizations.

A variety of methods and tools are used : village meetings, small group meetings, focus group discussions, one to one meetings, site visits and tours, alternative medium such as community drives etc. Engagement is supported by disclosure materials adapted to the audience including a range of written and visual material, traditional media including community radio, telecommunications and websites. As an example, as part of the Tilenga Project, an innovative series of webinars known as "Let's Talk!" provides a deep dive into topics of interest for civil society. In 2022 subjects covered included the Tilenga biodiversity programme, road safety, gender, voluntary principles on security and human rights, and climate.

A field-based stakeholder engagement team including community relations coordinators (CRC) and community liaison officers (CLO), composed of both male and female officers, are present on the sites and are in dialogue with local communities and have developed strong relations with local government, civil society and community representatives, acting as a "bridge" between the project and communities.

In Uganda, TotalEnergies EP Uganda has maintained for several years relations with the Civil Society Coalition on Oil and Gas (CSCO) - a network of over 60 Ugandan NGOs whose objective is to work towards the sustainable governance of oil and gas resources to maximize benefits to the people of Uganda. In October 2022, a field trip was organized for members of CSCO. EACOP in Uganda is also engaging with CSCO in quarterly meetings.

Several partnership agreements with NGOs have been signed in 2022 to support environmental, social and human rights objectives including on cultural preservation (with the Cross Cultural Foundation of Uganda), Road Safety (with Safe Way Right Way), and biodiversity (with Chimpanzee Sanctuary and Wildlife Conservation Trust and Wildlife Conservation Society).

From March 2022, road safety sensitization in the community was carried out. This included approximately 10 villages in the North and 60 villages in the South Nile regions, as well as 14,000 students from 21 schools In the Buliisa district. In addition, road safety advertisements have been conducted on local radio and community drives (information campaigns) have also focused on road safety.

In 2022, EACOP has consulted closely with four vulnerable ethnic groups self-identifying as "Indigenous Peoples" impacted by the project - the Akie, Taturu, Barabaig and Maasai.

EACOP's approach with these groups included in particular:

- negotiation and signing of a Free Prior and Informed Consent (FPIC) Agreement between EACOP and the Akie Community of Napilikunya in July 2022 – the first of its kind in Tanzania,
- negotiation and signing by the traditional leaders of The EACOP Plan for Vulnerable Ethnic Groups Self-Identifying as Indigenous Peoples in September 2022.

(1) A PAP (Project Affected Person) corresponds to a group of individuals forming a household or an entity (institution, company) which has been identified, within the framework of the studies carried out for the program of acquisition of the land necessary for the execution of the project., as having at least one asset impacted by the implementation of the project. An asset can be a dwelling, a construction, a plot of bare or cultivated land, plants, trees, crops.

**Land Acquisition**

The land acquisition processes for both projects are carried out in compliance with the IFC Performance Standards and national regulatory framework.

The land acquisition program for both projects is well advanced.

In Tilenga, the compensation process for the first tranche of land acquisition, known as "Resettlement Action Plan 1 (RAP1)" concerning 622 PAPs has been completed. Only 7 PAPs did not accept the compensation offered after valuation of their assets. Pursuant to a judgment of the Court of Masindi on April 30th, 2021 which ruled that the compensation amounts offered were fair, TotalEnergies EP Uganda deposited the corresponding funds in a court account for the benefit of these seven PAPs.

Deployment of the program for RAPs 2 through 5, concerning 4,920 PAPs is also well advanced. By end 2022, 94% PAPs had signed compensation agreement for impacted assets and 92% had received compensation. As long as the compensations have not been paid, the affected PAPs may continue to cultivate their land.

Only a small minority of PAPs require to be relocated to replacement houses as their principle residence is affected by land acquisition. For RAP 1, 30 replacement houses have been delivered. For RAP 2-5, 55 out of 205 replacement houses had been handed over by December 2022, as part of the progressive deployment of the program. Until the replacement houses are delivered, the affected PAPs may continue to live in their original house.

Improvements in implementation of the land acquisition process following RAP 1 were integrated into procedures for RAPs 2 to 5 including reinforced information to communities to ensure that PAPs understand that they may continue to cultivate their land until they have received their notice to vacate following compensation.

Transitional food assistance is provided to support PAPs through the period when farming may be disrupted by the land acquisition process until livelihoods have been reestablished.

EACOP's land acquisition program is, in Uganda and Tanzania, also well advanced: 91%PAPs had signed compensation agreement for impacted assets and 85% had received compensation by December 2022.

For the EACOP project, eleven RAPs have been developed, one for Uganda and ten for Tanzania – one for the Priority Areas which corresponds to land for the construction camps and sites used for the project's initial operations in the country, eight for each of the regions traversed by the pipeline corridor and one Supplementary RAP for the marine storage terminal.

After review or approval of the RAP by the Government, RAP implementation activities include disclosure of the content of the RAP, community sensitization and engagement, land and asset surveys and valuation, communication of official cut-off date, socio-economic surveys, preparation and submission of valuation reports by the Government, entitlement briefings (explanation of compensation options), signature of compensation agreements, financial literacy training, payment of compensation, delivery of Notice to Vacate, handover of replacement land, transitional support services (food packages), and livelihood restoration programmes (including agricultural programmes aimed at ensuring or increasing food security, support for livestock, vocational training and enterprise development) and replacement housing construction.

Livelihood restoration programs will be implemented for at least a number of years after land acquisition or until livelihoods are fully restored. During this period, as set out in the RAPs, continuous socioeconomic monitoring of the impacted populations will be conducted to ensure that their medium-term living standards are not impacted.

**Respect for Human Rights by suppliers**

Both the Tilenga and EACOP projects have established processes to ensure suppliers respect worker rights with regard to pre-qualification, contracting, and verifications, inspections and audits of suppliers.

In TotalEnergies EP Uganda, a presentation was given to contractor senior management at the annual HSE Contractor Forum and sensitization sessions are regularly given to key suppliers. On EACOP side, human rights training sessions were also given to the suppliers and communication materials were developed for workers.

Human Rights in the workplace matters are considered during HSE audits and inspections and dedicated Human Rights audits are also carried out for high-risk suppliers.

**VPSHR and Human Rights Defenders**

The Company adheres to the VPSHR. Security supervisors have been appointed to oversee daily security activities and constant dialogue occurs through regular meetings. In 2022, TotalEnergies EP Uganda conducted VPHSR trainings for 706 Government and Private Security personnel.

For EACOP, the Host Government Agreements with Tanzania and Uganda included VPSHR Risk Assessments have been undertaken in Tanzania and Uganda, and action plans for ongoing implementation of the VPSHR have been developed. A Security Committee has been formed for the Project that comprises the EACOP Security Manager and representatives of public security forces from Tanzania and Uganda. This is a key forum for EACOP to promote the VPSHR.

TotalEnergies EP Uganda regularly takes opportunities to discuss and promote the rights of Human Rights Defenders during its dialogue with Government, petroleum authorities and the police. In its contacts with all levels of the authorities, it freely discusses with them the importance of freedom of expression and the essential role that NGOs and Human Rights Defenders play in upholding rights and ensuring constructive dialogue and an open civic space.

On 3 May 2022, which is celebrated as World Press Freedom Day, TotalEnergies EP Uganda Senior Management representatives attended an event with the Uganda Journalism Association (UJA) to raise awareness of the importance of the human right to freedom of expression.

At the end of 2022, TotalEnergies EP Uganda's General Manager reiterated, in a video statement published on the Affiliate's website, TotalEnergies EP Uganda's strongest opposition to threats or attacks against those who peacefully exercise their right to freedom of expression, peacefully protest or assemble. TotalEnergies EP Uganda seeks to promote dialogue and exchanges with Human Rights Defenders in the framework of its activities and seeks to exercise its influence with relevant persons or authorities where, in the framework of its activities, it is alerted of allegations of threats, intimidation, harassment or violence against stakeholders. The General Manager also reiterated the various means which can be used for making complaints or raising alerts in relation to the Project which include an office, a toll-free number, Community Liaison Officers, an email service and contact through traditional leaders and district authorities.

**Community grievance mechanisms**

Community grievance mechanisms in line with the United Nations guiding principles on business and human rights criteria have been put in place to receive and respond to community grievances including those of PAPs.

There are a variety of access points to present grievances which include a local office manned daily in Uganda, a toll-free number, an email address and the possibility to register grievances with traditional leaders and district government offices who relay such information to the project teams.

Grievances are registered by community liaison officers and community relations coordinators and the complainants receive a copy of the grievance form. The mechanisms have four main steps: receipt and acknowledge; register; assess and assign; investigate and respond and close out.

Grievances are recorded in a register (stakeholder engagement software tool). Where possible they are resolved within 24 hours but for more complex cases, the process has four levels of escalation. Where necessary external stakeholders and independent third parties assist in finding solutions for complex and sensitive cases.

In 2022, considerable efforts have been made to communicate broadly on the grievance mechanisms. For example for Tilenga community drives were conducted in 60 villages. In addition, awareness was raised at community meetings, through radio programs and podcasts. Updated printed booklets in the relevant local languages have also been prepared and distributed in the communities.

EACOP's Community Grievance Management Procedure, launched in both countries in 2017, was updated in 2022 in particular to integrate local dispute resolution processes. Internal Grievance Management Committees have been established for the governance of Grievance Management in each country. Communication on Grievance Procedures has been reinforced through stakeholders' meetings, distribution of leaflets in communities as well as information and a video available on EACOP website.

**Example: Mozambique LNG Project**

TotalEnergies EP Mozambique Area 1 (TEPMA1) has held since 2019 a participation of 26.5%[(1)] and is the operator of the Mozambique LNG Area 1 project. It is the first onshore development of a liquefied natural gas (LNG) plant in the country located on the Afungi Peninsula, District of Palma, in the Cabo Delgado province.

The project faces significant social challenges with the displacement of households and cultivating lands within the area of construction of the LNG facilities (7,000 ha), which was underway when project activities were suspended in April 2021, as well as impact on fishers' economy due to the establishment of a Marine Exclusion Zone.The situation in the province has prevented the full implementation of the resettlement plan, although the compensation payment process has continued.

**Local security situation**

The Cabo Delgado province has experienced the surge of a "terrorist" movement leading to attacks against villages and large towns and causing the displacement of hundreds of thousands of people.

After taking the town of Mocimbao do Praia, in the summer of 2020, located about 80 kilometers from the project site, the terrorist movement conducted attacks in the northeast Cabo Delgado Province by attacking populations. This situation reached a peak with the attack of the town of Palma located 6km away from the Afungi site on March 24th, 2021. The intensity and duration of the attack prompted the evacuation of personnel from the site. This situation led TEPMA1 to declare force majeure on April 26, 2021. Since July 2021, the Mozambican government took military assistance from external partners (Southern African Development Community and Rwandese forces) to retake security control of Cabo Delgado.

**Human rights due diligence and Human rights policy**

Respect for human rights is a commitment and continuous focal area for TEPMA1 throughout the project.

A Human Rights Impact Assessment had been conducted in 2015 for the project which was then operated by Anadarko.

To update that assessment and complete it with assessments on the Voluntary Principles on Security and Human Rights (VPSHR) and social performance, a human rights due diligence (HRDD) was conducted in 2020 by LKL International Consulting. The due diligence resulted in an action plan addressing the following salient issues: Security (Community security and Interaction with public security providers), Resettlement, Women's rights and gender equity, Workers' rights (Freedom of association), Information and consultation, Community health and safety, Project-induced in-migration (PIIM), Access to remedy.

(1) TEPMA1, operator, holds a share of 26.5% in the Mozambique LNG Area 1 project, and partners with ENH Rovuma Area Um. S.A. (15%), Mitsui E&P Mozambique Area1 Ltd. (20%), ONGC Videsh Ltd. (10%), Beas Rovuma Energy Mozambique Limited (10%), BPRL Ventures Mozambique B.V. (10%), and PTTEP Mozambique Area 1 Limited (8.5%).

TEPMA1 formalized the learnings from these studies and its approach regarding human rights by adopting its Human Rights Policy in March 2021.

The due diligence report, the action plan and the human rights policy have been made available at the project's website. As the context changed from 2020 particularly as a result of the security situation in the area, an updated human rights due diligence was launched in December 2022.

The Company continues to monitor the situation and, in this context, in December 2022, entrusted Jean-Christophe Rufin, a recognized expert in humanitarian action and human rights, with an independent mission to assess the situation of human rights in Cabo Delgado province. This mission will also evaluate the actions taken by Mozambique LNG and will propose any additional actions to be implemented, if required.

During 2022 a focus on business and Human Rights was given to training to TEPMA1 staff as well as to government and civil society organizations (CSO) and NGOs. 142 people participated on the trainings in Maputo, Pemba and Palma districts.

During 2022, different engagements were made with government authorities working directly on human rights matters, looking in particular at VPSHR issues. In this regard, at the national level, TEPMA1 had meetings with Ombudsman and Ministry of Justice. At provincial level, the project engaged the the justice sector in Cabo Delgado and facilitated a visit in December for the government justice sectors to the site, with a view to contributing to the return of justice sector institutions following their withdrawal in earlier 2021 as a result of the aggravation of the security situation.

Also in 2022, a Memorandum Of Understanding was signed with the Ministry of Justice with the intention to provide logistic support in order to fast track the implementation of activities in support of human rights in the Palma/Afungi area. The agreement will allow for the government to support communities affected by the conflict in order to prevent and remedy any possible violation of their human rights.

**VPSHR implementation**

TEPMA1 and MRV, the operator of a LNG project located in another area designated as "Area 4", have signed a Security Memorandum Of Understanding (MoU), in March 2019, amended in July 2020, with the Mozambican Ministry of National Defense (MDN) and Ministry of the Interior (MINT). The MoU provides for the deployment of police and army personnel together designated as the Joint Task Force (JTF), and their logistical support with the aim of ensuring the security of Project operations and workforce and the communities residing in the broader project area of operations. The MoU requires adherence to key human rights guidelines including the VPSHR.

Despite the aggravation of the security situation and the suspension of the activities since April 2021, implementing the VPSHR remains a priority for TEPMA1. VPSHR training sessions have been systematically conducted for all JTF officers deployed to site. In 2022, 611 officers were trained by qualified personnel from the project's security team. To improve the sustainability and the ownership of the training courses, intensive Train-the-Trainers sessions were also delivered by an accredited international expert (Watchman) to 93 of the JTF members in senior line positions in the months of February and October 2022. They left the course with a practical kit to be used in an operational context, which has since enabled 1315 members of the JTF to be trained. Consequently, the members of the JTF can now be trained directly by their superiors. A new Train-the-Trainers session is planned for 2023.

In parallel, 5 officers in charge of relations with local communities in close relation with the project, appointed by the JTF commander, are involved in humanitarian and social activities. These efforts aim to build trust between local communities and the JTF, thereby contributing to a better resolution of any potential disputes.

Finally, TEPMA1 is also involved in the promotion of VPSHR at national level. TEPMA1 contributed to the initiative to create an In-Country Working Group on the VPSHR and a Cabo Delgado Technical Working Group launched in April 2022.

**Incident resolution**

TEPMA1 has implemented a community grievance mechanism, managed remotely, supported notably by a 24h-toll-free telephone line to address any concerns or incidents.

When JTF-related incidents are reported, they are immediately investigated by TEPMA1, and referred to the JTF command for additional investigation.

Monthly reports continue to be provided to the representatives of the Parties of the MoU and the VPSHR situation is regularly discussed with ministry authorities. VPSHR monitoring is the subject of constant attention of TEPMA1 which takes measures to preserve the anonymity of complainants. Monthly meetings are organized with the Ministries of Defense and Interior, in particular to review the implementation of the VPSHR. In addition, TEPMA1 monitors VPSHR incidents on a case-by-case basis by alerting and communicating directly with the authorities and taking the appropriate measures.

**Socioeconomic Development Initiatives**

Despite the current suspension of the Project, TEPMA1 has maintained and adapted the Catalisa project for communities as part of TotalEnergies' willingness to contribute to restoration of social life in Cabo Delgado. The project focus was to support around 1,212 farmers (470 on horticulture and 742 in the poultry sector) mostly in the southern part of the Cabo Delgado province but also focused on the Palma District.

Equally, TEPMA1 has invested in the implementation of a socioeconomic development portfolio composed by 44 initiatives that looked at lifting communities' livelihoods in the areas of Palma and Mocimboa da Praia (including initiatives on agriculture, farming and fishery).

### Subsidiary self-assessment

In addition to Subsidiary and industrial project assessments, two types of **Subsidiary self-assessment** should be noted.

With regard to the implementation of **VPSHR**, the self-assessment and risk analysis tools were revised in 2022 to make them more adaptable to the local context. In 2022, the strategy for implementing these tools mainly targeted the Subsidiaries of countries that had not participated in the 2021 campaign, or whose rate of compliance with VPSHR was low. They have thus been deployed to Subsidiaries in 26 countries with a response rate of 92%.

With regard to the implementation of the **societal approach**, the Subsidiaries must carry out an annual self-assessment in this area and internal *reporting* to identify the societal actions carried out locally. These self-assessments are analyzed by the HSE division in order to adapt the support it provides to Subsidiaries (offers of training, assistance). In 2022, 100% of the Subsidiaries in the Exploration & Production, Refining & Chemicals and Marketing & Services segments within the One MAESTRO scope, which had an operational activity in 2022, carried out their self-assessment.

## ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS

TotalEnergies has numerous tools for **raising employee awareness** of issues related to human rights. The Company held **training courses tailored to the challenges faced in the field** by employees who are particularly exposed to these issues.

In 2022, several training sessions were held as part of the implementation of the Human Rights training plan:

### For targeted categories

More than 2,050 employees belonging to the priority categories were trained in face-to-face training sessions in 2022.

- In the Marketing & Services segment:
  - more than 300 employees were trained in the respect of human rights in the workplace. Including in these employees are members of the Management Committees, as well as other priority categories of employees (Retail Managers, Territory Managers and Station Managers) in the subsidiaries in Tanzania (32), Zimbabwe (27), the United Arab Emirates (Dubai, 60), Singapore (73), the Dominican Republic (86) and Jamaica (24),
  - 107 managers were trained in the respect of human rights during seminars for the African regions (French- and English-speaking) and for the Americas,
  - 250 network Sector Managers and 300 Service Station Managers were also trained in human rights. The awareness of the directors, managers and trainers in the network has also been raised.
- In the Exploration & Production segment, nearly 370 employees were trained in the respect of human rights, namely:
  - 12 senior executives in the Africa division,
  - the Management Committees and certain priority categories of employees of the subsidiaries Total Austral in Argentina (273), TotalEnergies EP United Arab Emirates (60) and TotalEnergies Gas & Power Asia Private Limited in Singapore (25) also followed training in human rights during the GoodCorporation assessments or human rights awareness campaigns that were rolled out in these subsidiaries throughout the year.
- In the Integrated Gas, Renewables & Power segment, nearly 200 employees were trained in the respect of human rights, including the Management Committees and certain priority populations of subsidiaries in the United Arab Emirates and Singapore, and at the Saft Group site in Bangalore, India.
- In the Refining & Chemicals segment, nearly 230 employees were trained in the respect of human rights, including Hutchinson's Management Committee and the Management Committees and certain priority populations of the subsidiaries in Mexico (135, on the Ensenada site), Tunisia (31, on the Sousse site) and Romania (62, on the Brasov site), with a focus on the respect for human rights in the workplace.
- Finally, at TotalEnergies Global Procurement, around 300 employees, including buyers covering all geographical areas, were trained remotely.

Training in ethics and human rights, which is mandatory for newly appointed executives, was followed by 11 new executives in 2022.

### For all employees

The online module on human rights in the workplace with a focus on respecting the ILO's core conventions, which has been accessible to all employees since 2019 in all countries, continued to be deployed in the countries where TotalEnergies operates. It is available in five languages and approximately 35,500 employees have followed it to date.

In addition to the societal module incorporated into the HSE for Managers training program, remote training modules were developed for personnel of Subsidiaries in charge of societal issues. In 2022, ten sessions of the HSE for Managers training program. including the societal module. were delivered, with a total of 200 participants. Training on societal performance is also being deployed in Exploration & Production to raise awareness among various lines of business about societal issues and the tools available. In 2022, five training sessions were held for a total of 88 people (Angola, Bolivia, France, Libya, Mozambique, Nigeria, Norway, Papua New Guinea, Suriname and the US). A new social awareness module was created in 2022 and is available to all employees through the internal training platform. In 2022, the digital platform named Societal Academy, which makes the necessary educational resources accessible to Subsidiaries, such as rules, guides, training materials, feedback and best practices, was improved by the addition of new content. Webinars attended by nearly 180 participants were organized in October 2022 for the launch of the societal reporting campaign.

In certain situations, intervention by government security forces or private security companies is necessary to protect the Company Subsidiaries' staff and assets. TotalEnergies regularly organizes training sessions and awareness-raising activities for its employees on the risk of disproportionate use of force and, more specifically, on the VPSHR. In 2022, this awareness-raising work led the VPSHR liaisons to continue the revision the content of the training courses in order to make them more accessible and better adapted to changes and issues related to human rights and security. This improvement was made mainly by developing a new online training module for the Country Security Officers, who support Country Chairs in their role of being responsible for the Company's security at country level and who are the representatives of the Company Security division in charge, among other things, of implementing the VPSHR.

In addition, specific awareness-raising work on compliance with the VPSHR and their deployment in the entities considered most at risk is carried out annually. The contribution of the Subsidiaries to the annual "ADRA Campaign" (*Auto-Diagnostic and Risk-Assessment*) enables the VPSHR teams of the Security division to assist them with improvement actions throughout the year.

## WHISTLE-BLOWING MECHANISMS

TotalEnergies has set up several levels of whistle-blowing mechanisms that cover the entire Company, or are specific to certain projects.

In 2022, the **Ethics Committee** received about 150 reports (internal, external, anonymous) regarding compliance with the Code of Conduct, more than 60% of them concerning matters relating to Human Resources. All reports received are addressed and, when necessary, recommendations are made in order to lead to the implementation of corrective actions. Irrespective of whether the referral is well founded, mediation may be necessary. When the Ethics Committee observes a breach of the Code of Conduct, management draws the necessary conclusions and sanctions may be imposed in keeping with the applicable law and the procedures negotiated locally with staff representatives (examples include verbal reminders, written warnings, suspension or dismissal).

The *Collection and processing of ethical complaints* procedure published internally and on the TotalEnergies website since December 2020, formally sets out the existing approach for collecting and processing complaints sent to the Ethics Committee by internal or external stakeholders concerning behaviors or situations contrary to the Code of Conduct. It ensures that the identity of the person making the report is protected, rules out any reprisals against them or against those taking part in the processing of the complaint, and respects applicable laws and regulations in terms of protecting personal data.

The Subsidiaries have also put in place **mechanisms for managing grievances made by external stakeholders**. Deployment is gradual throughout the Company. An internal guide was published in 2020 detailing the methodology for designing and effectively managing the grievance mechanism process. This guide contains practical tools drawing on international recommendations (International Petroleum Industry Environmental Conservation Association (IPIECA), International Council on Mining and Metals (ICMM), International Finance Corporation (IFC).

At the end of 2022, 100% of the Subsidiaries in the Exploration & Production, Refining & Chemicals and Marketing & Services segments within the One MAESTRO scope with an operational activity, had a grievance management mechanism in place.

Grievances received by the Subsidiaries in connection with the societal impact of their activities are distributed among the following types: access to land and habitat, economic losses/loss of livelihood, dangers for the environment and health, employment and value chain, road safety/ logistics and transportation, adverse impact on culture and heritage, security, social conduct, quality of local dialog and management of economic development projects.

In case of **incidents related to the implementation of the VPSHR,** a reporting is quickly made to the Security division, and a report is compiled after internal analysis to assess the facts and to determine the measures to be taken to reduce the risk of future incidents.

## MONITORING PROCEDURES

At regular intervals, a **human rights roadmap** is presented to the Executive Committee to support the ongoing efforts to enforce the Code of Conduct and respect for human rights. The roadmap for 2021-2022 has been constructed with the various business segments and Company entities concerned. The Human Rights Steering Committee monitored the implementation of this roadmap.

For each specialty or business segment, the roadmap addresses questions of governance (for example, an internal procedure to be updated), new trainings to be developed, the prioritization of salient issues in a given specialty or segment, dialogue with stakeholders (for example, by appointing and training CLOs), risk assessment (for example, in the impact assessments of new projects), preventive and remediation actions, monitoring and communication. The Human Rights Department and the Ethics Committee rely on a network of more than 100 Ethics officers across the countries in which TotalEnergies operates. They are in charge of promoting the values set out in the Code of Conduct among employees working at Subsidiaries and ensuring that the Company's commitments are correctly implemented at a local level.

Regarding the **VPSHR**, TotalEnergies takes part in **follow-up meetings** with the other members of the initiative as part of the process of continuous improvement. In March 2022, TotalEnergies published its 2021 VPSHR report, which contains information on the implementation of VPSHR in Subsidiaries worldwide, and reviews progress made. This report is available on the TotalEnergies website. The information set out in the report is based on annual reporting organized by the Security division that brings together the results of a VPSHR questionnaire, and of the risk and compliance analyses for each Subsidiary operating in a sensitive context. It contains examples of action taken to raise awareness and process incidents. The 2022 VPSHR report will be published in 2023.

# 3.6.8.2 HEALTH AND SAFETY

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

## SUBSIDIARY ASSESSMENTS

In addition to the HSE self-assessments of the Subsidiaries at least every two years, the Subsidiaries operating the sites are audited every three to five years. The periodicity of HSE audits is defined according to a risk-based approach, which takes into account, among other things, the results of previous HSE audits and the status of the corresponding action plans.

In 2022, 38 HSE audits were conducted.

## ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS

In terms of HSE, **training intended for various target groups** (new arrivals, managers, senior executives and directors) is provided in order to establish a broad-based, consistent body of knowledge that is shared by all:

- *Safety Pass:* these safety induction courses were started on January 1, 2018 for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions,
- *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2022, in which about 200 managers took part,
- *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2022 to train approximately 70 Company's senior executives.

In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of Subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Approximately 20 evaluations were carried out in 2022.

World Safety Day is held each year by the HSE division. The theme in 2022 was "The Golden Rules : my commitment, our safety". In addition, TotalEnergies encourages and promotes its Subsidiaries' safety initiatives. Each year, the Company recognizes and awards the best HSE initiative carried out in a Subsidiary.

As regards crisis management, the intervention teams at Subsidiaries and head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. The context of the COVID-19 pandemic demonstrated the Company's capacity for resilience, where the Company used, in various formats, its procedures and methodologies to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the development of digital crisis units for the headquarters, business segments and Subsidiaries and the deployment of associated training. In order to maintain training capacity regardless of how the situation developed, training for internal crisis management individuals was delivered either face-to-face or remotely depending on countries' accessibility. In 2022, 371 individuals were thus trained in crisis management in Subsidiaries and at head office.

TotalEnergies also continued to roll out its *Incident Management System* (IMS) at Subsidiaries operating liquid hydrocarbon or natural gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations. It is described in an IPIECA good practices guide and is being progressively adopted by the majors. In 2022, 199 employees were trained in the IMS and seven Exploration-Production Subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 780 and the number of Subsidiaries where the IMS is deployed to 18.

**Return on experience** (feedback) on HSE incidents is regularly collected. A return on experience document describes the HSE incident or the corresponding accident, includes an analysis and recommendations applicable to similar situations. 77 documents (feedback, best practices, alerts) were disseminated within the Company in 2022.

## MONITORING PROCEDURES

**In the field of prevention of major industrial accidents**, the Company monitors the number of Tier 1 and Tier 2 losses of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). After reaching its target in 2022, the Company has strengthened its demands and has set itself a new target of a number of Tier 1 and Tier 2 events below 50 in 2023. In 2022, the Company did not experience any Tier 1 or Tier 2 events due to acts of sabotage.

| Losses of primary containment[(a)] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Losses of primary containment (Tier 1) | 11 | 29 | 30 |
| Losses of primary containment (Tier 2) | 37 | 48 | 54 |
| Losses of primary containment (Tier 1 and Tier 2) | 48 | 77 | 84 |

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream). Excluding acts of sabotage and theft.

Tier 1 and 2 events had only moderate consequences such as lost time injuries, fires or pollution of limited extent or with no impact. The Company did not have any major industrial accidents in 2022.

**In the field of road transportation**, to measure the results of its policy, TotalEnergies has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. Over the past 5 years (2017 - 2022), the 60% reduction in the number of serious accidents demonstrates the efforts made, particularly thanks to the prevention campaigns targeting the drivers of heavy goods vehicles.

Based on the use of new technologies to prevent road accidents, TotalEnergies has made it mandatory for all new heavy vehicles in the Marketing & Services segment to be equipped with certain driver assistance systems[(1)] wherever these technologies are offered by manufacturers. In Marketing & Services, the decision was also made to deploy fatigue detection systems in countries with high road risk, after conclusive testing over several months. More than 2,600 transportation vehicles had been equipped in the African zone by the end of 2022 (approximately 50% of the entire fleet under long-term contract in the zone). Deployment is now continuing worldwide, with the aim of having a lane departure warning system and a driver drowsiness and distraction detection system on all our fleet by the end of 2024.

In addition, the second part of the SafeDriver video campaign, launched in 2019, came to an end in November 2022. The subjects included blind angles, fatigue, driving in difficult situations, distractions when at the wheel, speed and safety distances, as well as maneuvers and lines of danger. The third part of this campaign is being prepared for 2023-2024.

| Number of severe road accidents[(a)] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Light vehicles and public transportation[(b)] | 3 | 1 | 0 |
| Heavy goods vehicles (trucks)[(b)] | 12 | 20 | 27 |

(a) Overturned vehicle or other accident resulting in the injury of an occupant (declared accident).
(b) TotalEnergies vehicles or vehicles under long-term contract (over 6 months) with TotalEnergies.

**In the field of safety, in particular in the workplace**, the indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2023, of reducing it below 0.65 for all personnel of the Company and its contractors. The 2022 target was 0.70.

(1) Such as AEB (advanced emergency braking), LDW (lane departure warning) and EBS (electronic braking system) for motor vehicles and RSS (roll stability support) for semi-trailers.

| Safety indicators | 2022 | 2021 | 2020 |
|---|---|---|---|
| Millions of hours worked – All Personnel | 392 | 389 | 389 |
| Company Personnel | 217 | 215 | 211 |
| Contractors' employees[a] | 175 | 174 | 178 |
| Number of occupational fatalities – All Personnel | 3 | 1 | 1 |
| Company Personnel | 0 | 1 | 0 |
| Contractors' employees[a] | 3 | 0 | 1 |
| Number of occupational fatalities per hundred million hours worked – All Personnel | 0.77 | 0.26 | 0.26 |
| TRIR[b]: number of recorded incidents per million hours worked – All Personnel | 0.67 | 0.73 | 0.74 |
| Company Personnel | 0.60 | 0.59 | 0.63 |
| Contractors' employees[a] | 0.76 | 0.91 | 0.87 |
| LTIR[c]: (lost time injury rate) number of lost time accidents per million hours worked – All Personnel | 0.45 | 0.48 | 0.48 |
| Company Personnel | 0.51 | 0.47 | 0.50 |
| Contractors' employees[a] | 0.39 | 0.48 | 0.46 |
| SR[d]: number of days lost due to accidents at work per million hours worked - All Personnel | 15 | 15 | 17 |

(a) As defined in point 5.11.4 of chapter 5.
(b) TRIR: Total Recordable Incident Rate.
(c) Lost Time Injury Rate.
(d) SR: Severity rate. It replaces the SIR (Severity Injury Rate) indicator previously disclosed.

In 2022, out of the 263 occupational accidents reported, 256 related to accidents at the workplace. 73% of these occurred, in decreasing order of the number accidents, when handling loads or objects, walking, using portable tools or working with powered systems.

The Company's efforts on safety have allowed it to reduce the TRIR by more than 70% between 2012 and 2022. This improvement is due to constant efforts in the field of safety and, in particular:

- the prevention of the risks of serious and fatal accidents by campaigns aimed at road transport and high-risk work,
- the implementation of the HSE rules and guides, which are regularly updated and audited,
- training and general awareness raising with safety issues for all levels of management (World Safety Day, special training for managers),
- HSE communication efforts targeting all Company personnel,
- the introduction of HSE objectives into the remuneration policy for TotalEnergies employees (refer to point 5.6.1.2 of chapter 5).

Despite the measures implemented, there were regrettably three accidental fatalities among the personnel of external companies in 2022. In April, a worker was electrocuted by an overhead power line during work on a service station in Burkina Faso; in August, a shovel driver was buried with his machine while digging in a quarry in Argentina; and in September, a driver died when his tanker truck overturned on the freeway in France.

For each of these accidents, specific preventive measures have been taken at the Company level in addition to the global programs already in place.

**In the field of occupational health**, TotalEnergies uses the following indicators:

| Health indicators (WHRS scope) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Percentage of employees with specific occupational risks benefiting from regular medical monitoring | 99% | 97% | 97% |
| Number of occupational illnesses recorded in the year (in accordance with local regulations) | 129 | 158 | 136 |

### 3.6.8.3 ENVIRONMENT

This section is primarily intended to present implementation of measures with respect to Subsidiaries, while the implementation of measures specific to Suppliers is described in point 3.6.8.5 of this chapter.

#### SUBSIDIARY ASSESSMENTS

HSE audits, which include a section on the environment, are described in point 3.6.8.2 of this chapter.

The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment[1] must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 80 sites were compliant in 2022. In addition to this requirement, at year-end 2022, a total of 284 sites operated by the Company were ISO14001 certified, including 13 newly certified sites.

#### ACTIONS TO MITIGATE RISKS AND PREVENT IMPACTS AND MONITORING PROCEDURES

In terms of **preventing the risk of accidental pollution**, TotalEnergies monitors indicators that allow it to assess the preparedness of Company operated sites for oil spills.

| Oil spill preparedness | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water | 113 | 119 | 119 |
| Proportion of those sites with an operational oil spill contingency plan | 100% | 100% | 100% |
| Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities | 92% | 97% | 88% |

In accordance with industry best practices, TotalEnergies monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Performance Management Committee of the Company. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

(1) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment, operated by the Company.

| Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of spills | 49 | 65 | 50 |
| Total volume of spills *(thousands of m³)* | 0.1 | 2.0 | 1.0 |
| Total volume recovered *(thousands of m³)* | 0.1 | 1.7 | – |

In 2022, no major spills occurred at the Company's operations.

As part of TotalEnergies' policy of **avoiding**, **reducing** and where necessary **offsetting** the environmental footprint of its operations, discharges of substances are identified and quantified by type of environment (water, air or soil) so that appropriate measures can be taken to better control them.

In 2015, $SO_2$ emissions reached 59 kt. TotalEnergies has set itself the target of reducing its emissions by 75% in 2030 (compared to 2015), which entails not exceeding 15 kt.

| Chronic emissions into the atmosphere | 2022 | 2021 | 2020 |
|---|---|---|---|
| $SO_2$ emissions *(in kt)* | 13 | 16 | 34 |
| $NO_x$ emissions *(in kt)* | 60 | 59 | 64 |
| NMVOC emissions[a] *(in kt)* | 48 | 58 | 69 |

(a) Non-methane volatile organic compounds.

$SO_2$ emissions that are likely to cause acid rain are regularly checked and reduced. In 2022, $SO_2$ emissions decreased significantly due to the decline in refinery activity (shutdowns, strikes) and scope effects. Excluding the short-term effects, these emissions would have been 18,000 tons in 2022 as against 21,000 tons in 2021.

$NO_x$ emissions mainly concern the hydrocarbon exploration and production activities. They are mostly located offshore, far from the coast.

In January 2022, TotalEnergies set a new target for the quality of onshore discharge water to be achieved before 2030. Compared to the previous objective, it divides by 15 the maximum hydrocarbon content expected for these discharges. To date, 100% of the onshore sites comply with the previous objective of 15 mg/l and 73% with the new objective of 1 mg/l. Studies have been launched to improve the discharges from sites that are still not in compliance.

| Discharged water quality | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon content of offshore continuous water discharges *(in mg/l)* | 12,9 | 13.7 | 12.8 |
| % of sites that meet the target for the quality of offshore discharges *(30 mg/l)* | 93% | 92% | 100%[a] |
| Hydrocarbon content of onshore continuous water discharges *(in mg/l)* | 1,8 | 2.6 | 1.9 |
| % of sites that meet the target for the quality of onshore discharges of: | | | |
| – goal 2010-2020: 15 mg/l | 100% | 100% | 100% |
| – goal 2030: 1 mg/l | 73% | 80% | – |

(a) Alwynn and Gryphon sites (United Kingdom) excluded, as their produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration.

As part of the implementation of the **biodiversity ambition** adopted by TotalEnergies in 2020, an overview of measures already taken and updated for 2022 under the four main areas of this new ambition is provided in point 5.5.4 of chapter 5.

## 3.6.8.4 CLIMATE

### SCOPE OF REPORT

This part of the implementation report relates to greenhouse gas emissions resulting from the Company's Activities (Scope 1+2), in accordance with the provisions of Article L. 225-102-4 of the French Commercial Code. TotalEnergies also reports on indirect greenhouse gas emissions related to the use by customers of energy products (Scope 3) and related actions, in accordance with Article L. 225-102-1 of the French Commercial Code, in its non-financial performance statement (refer to point 5.4 of chapter 5).

### GOVERNANCE

In order to contribute concrete responses to the issue of climate change, TotalEnergies relies on a structured organization and governance.

Climate issues are addressed at the highest level of the organization by the Board of Directors and the Executive Committee, which have fully committed to transforming TotalEnergies into a multi-energy company and a major player in the energy transition. The Chairman and Chief Executive Director with the members of his Executive Committee as well as the Lead Independent Director participate all year long to a nourrished dialogue with shareholders and different stakeholders on the Company's climate issues. As an illustration, on April 5 and 6, 2022, the Lead Independent Director exchanged with diverse shareholders representing more than 20% of the share capital of TotalEnergies SE. These meetings have been the opportunity of a dialogue about the transformation strategy of TotalEnergies, its progress and the update of its climate ambition.

The Board of Directors also reports annually to the shareholders on the progress made. As in 2021, the Board of Directors submitted at the Annual Shareholders' Meeting on May 25, 2022 to the shareholders of TotalEnergies SE for their opinion the Sustainability & Climate Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition in terms of sustainable development and energy transition towards carbon neutrality and its related targets by 2030, and complementing this ambition. This resolution was approved by close to 89% of the votes cast.

In support of the Company's governance bodies, the Sustainability and Climate division shapes the approach to climate and accompanies the strategic and operational divisions of the Company's business segments. By defining and monitoring indicators, progress can be measured and the Company's actions can be adjusted (details of the indicators used are provided in point 5.4.4 of chapter 5).

#### Oversight by the Board of Directors

TotalEnergies's Board of Directors endeavors to promote value creation by the business in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Company's strategic orientation and regularly reviews, in connection with this strategic orientation, the opportunities and risks such as financial, legal, operating, social and environmental risks, and the measures taken as a result. It thus ensures that climate-related issues are incorporated into the Company's strategy and the investment projects that are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Company's business segments. It reviews performance each year.

The skills of the directors in the area of climate are presented in section 4.1.1.5 of chapter 4. A continuing training program relating to the climate for directors has been approved in 2021 and it includes different modules about the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and challenges of global warming. In 2022, the directors followed in particular the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences).

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose internal rules were amended first in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Company's strategy. In this regard, the Strategy & CSR Committee convened on October 25 and October 26, 2022 a strategy seminar to review the following topics: energy markets - geopolitics; new energies for mobility by 2030 (road, marine and aviation); integrated business model for electricity. On this occasion, the directors had the opportunity to discuss with Mr. Larry Fink, Chairman and Chief Executive Officer of BlackRock.

The Board of Directors has also been integrating climate issues into its compensation structures for several years. In 2021, the Board of Directors decided to change the criteria for determining the variable portion of the Chairman and Chief Executive Officer's compensation by introducing two new criteria to assess his personal contribution, weighing 25% of this variable portion, namely steering the strategy of transformation towards carbon neutrality and profitable growth in renewables and electricity. CSR performance is also a qualitative criterion for evaluating personal contribution. CSR performance is assessed by considering the extent to which climate issues are included in the Company's strategy, the Company's reputation in the field of CSR and the policy concerning all aspects of diversity. These criteria complement the quantitative HSE criteria and those introduced in 2019 relating to changes in GHG emissions (Scope 1+2).

The variable compensation of the Company's senior executives (approximately 300 people at the end of 2022) includes a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2). Since 2020, the criteria for awarding performance shares to the Chairman and Chief Executive Officer and to all the Company's employees also include this objective.

**Role of management**

TotalEnergies' Chairman and Chief Executive Officer, assisted by the Executive Committee, in accordance with the long-term strategic direction set by the Board of Directors, implements the strategy of the Company while making sure climate change challenges are taken into account and detailed in the operational road maps. The work is based in particular on risk mapping, which includes climate issues.

A Sustainability & Climate division, which reports to the President, Strategy & Sustainability, a member of the Executive Committee, coordinates the Company's actions in this area.

A Climate-Energy Steering Committee, chaired by the Vice President Climate which mainly includes representatives of Strategy and HSE management from the various business segments, is responsible for structuring the Company's approach to climate issues, and in particular for:

- proposing targets for reducing GHG emissions for the Company's operations,
- proposing a strategy to reduce the carbon intensity of the energy products used by the Company's customers,
- monitoring existing or emerging $CO_2$ markets, and
- driving new technology initiatives, in particular with industrial partners, to reduce GHG emissions (energy efficiency, $CO_2$ capture and storage, for example).

Under the impetus of the governance bodies, the Company maintains an ongoing dialogue with investors, non-financial analysts and non-financial rating agencies on climate issues and, more broadly, on the Company's ESG (Environment, Social, Governance) themes. A total of more than 250 ESG meetings were organized in France and internationally in 2022.

## OUR STRATEGY: AN INTEGRATED MULTI-ENERGY COMPANY

### 1. How can we respond to current energy demand while preparing for the future?

The energy transition is underway but the world still uses fossil fuels to meet 81% of its energy needs. So to keep global warming to well below 2°C, in line with the Paris Agreement, we must drastically reduce our consumption of fossil fuels (coal, oil, gas) and make the world energy system evolve by building the new low-carbon energy system at a much faster pace. Our collective challenge – which became evident in 2022 – is to reconcile the energy transition with the need for energy security and concerns over its cost. When the supply of oil or natural gas is restricted while demand continues to rise, the resulting price increases and supply insecurity have an immediate and acute impact on communities. To meet the challenge of the energy transition and still ensure that reliable energy is available in the short term at the lowest possible cost, we need to invest in two energy systems simultaneously: we must ensure the current system continues to operate responsibly, and at the same time speed efforts to build a new system centered on low-carbon energies (renewable electricity, biofuels and biogas, clean hydrogen and synthetic fuels, CCS solutions for offsetting residual fossil-fuel emissions).

We can also leverage two measures that will deliver immediate results: replacing coal in energy applications whenever possible, and investing heavily to improve energy efficiency.

That, in essence, is TotalEnergies' strategy: to continue providing the energy the world needs now, notably natural gas to replace coal, while responsibly and sustainably accelerating the transition to low carbon energy solutions. This is how, in practice we support to the goals of the Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and the fight against poverty, and which aims to keep the increase in average global temperatures well below 2°C compared to pre-industrial levels.

Events in 2022 gave the Company renewed confidence in its strategy. We are investing with discipline, at a time when its markets continue to evolve at an uncertain pace. Its portfolio of multienergy businesses gives us the flexibility and discretion to position ourselves as a leader in the energy transition, regardless of its speed.

The energy transition depends, first, on electrifying energy use, which will require a massive increase in green electricity. TotalEnergies is expanding across the entire electricity value chain, from production of intermittent renewables for flexible power generation to natural gas, storage, trading and sales, with an eye on profitability. Our goal is to build an Integrated Power segment with a return on average capital employed higher than 10% and to rank among the world's top five providers of solar and wind energy by 2030, with gross capacity of 100 GW and an interim target of 35 GW by 2025 (we had reached 17 GW as of year-end 2022).

Second, the energy transition depends on the development of new, low-carbon energies (biofuels and biogas, clean hydrogen and synthetic fuels combining hydrogen and carbon) that TotalEnergies has the core skills to produce. We are expanding into these new markets by focusing on circular resource management and deploying less-mature technologies at our own sites to test its business viability.

For natural gas, a transition energy, TotalEnergies is pursuing growth across the liquefied natural gas (LNG) value chain to consolidate our position as the world's third-largest supplier. LNG plays a key role in the net-zero roadmap for many coal-consuming countries. It's also a perfect partner for intermittent renewable energies: flexible, controllable CCGT plants ensure a secure electricity supply in the face of unforeseen weather events and fluctuations in demand.

In the oil business, the Company is pursuing a highly selective strategy, restricting our capital expenditure to projects that are less carbon-intensive and have a low breakeven point. That strategy allows us to take full advantage of worldwide demand for oil, which continues to climb but is expected to start trending downward in the medium term as transportation goes electric; we can therefore ensure that our business operations remain profitable and resilient over the long term.

As they evolve, the energy markets are becoming increasingly interconnected and interdependent, particularly since electricity – the energy at the center of the transition – is a secondary energy, meaning that it depends on other energies and markets.

The integrated multi-energy strategy of the Company and its solid financial base are strengths that allow us to be a major player of the sustainable energy the world needs and make the most of the current changes, including the potential price volatility they may cause.

## 2. A Net Zero Company by 2050 together with society

With regard to greenhouse gas emissions, TotalEnergies is committed to shrinking its carbon footprint from production, processing and delivery to its customers.To begin with, the Company is moving forward with an ambitious action plan to reduce the greenhouse gas emissions for which we are responsible (Scope 1+2 emissions at our operated assets) to the strict minimum. The Company also invests in carbon storage and sequestration projects to "neutralize" its residual emissions and to be able to offer those CCS solutions to its major industrial customers.

Although the speed of transition will depend on the pace of change in government policies, consumer practices and corresponding demand, TotalEnergies has embraced the need to offer its customers affordable less carbon-intensive energy products, and to lend support to our partners and suppliers with their own low-carbon strategies.

Drawing on the actions already taken to revise our energy offerings and reduce carbon emissions from our operations, in 2022 TotalEnergies published an outline of how our businesses might evolve as we become a carbon-neutral energy company by 2050, together with society.

**By 2050, TotalEnergies would produce:**

- about 50% of its energy in the form of low-carbon electricity with the corresponding storage capacity, totaling about 500 TWh/y, on the premise that it develops about 400 GW of renewable capacity,
- about 25% of its energy, equivalent to 50 Mt/y, of decarbonized fuels in the forms of biogas, hydrogen or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels,
- about 1 Mb/d of oil and gas (about a quarter of the total in 2030, consistent with the decline envisaged in the IEA's Net Zero Scenario), primarily liquefied natural gas (roughly 0.7 Mb/day, or 25-30 Mt/y) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/y of polymers, of which two thirds would come from the circular economy.

**That oil and gas would represent** Scope 1 residual emissions of about 10 Mt $CO_2$e/year, with methane emissions almost eliminated (to below 0.1 Mt $CO_2$e/year), those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks).

## 3. 2020-2030: a decade of transformation for now and the future

The vision of TotalEnergies potential transformation by 2050 is backed by an investment policy designed to accelerate access to low-carbon solutions (electricity and renewable energies, biogas and biofuels, low-carbon fuels, CCS) while we continue to meet the world's current energy demand. The world's population continues to grow and the inhabitants of emerging nations have legitimate aspirations to a higher standard of living, comparable to that of Western countries. The years 2020 to 2030 will mark TotalEnergies' transformation into a multi-energy company.

**In practical terms, over the coming decade to 2030, TotalEnergies' ambition is to:**

- Increase its energy production from 14 PJ/d to 20 PJ/d to meet growing demand. Electricity (primarily renewable power) would account for half that increase, with target power generation of about 130 TWh, and liquefied natural gas would make up the balance, while oil production in the years up to 2030 would remain generally stable,
- Pursue efforts to decarbonize the energy products offered to end customers, by decreasing its sales of petroleum products by more than 30% to align those sales with production of about 1.4 Mb/d. That reduction is consistent with the strategy of integration across value chains, and reflects the anticipated decline in fuel demand in Europe, where the shift to electric road transportation is well underway. As a result, oil will account for no more than 30% of its total sales, compared to 53% in 2019.

That forecast trend in business operations up to 2030 underlies TotalEnergies' carbon emissions commitments over that same period.

## TRANSFORMING OURSELVES TO REINVENT ENERGY

### 1. Low-carbon electricity: growth and profitability

Serving energy demand with low-carbon electricity is a key focus in the roadmaps of countries committed to reaching carbon neutrality by 2050. As a result, electricity is a fast-expanding market in which TotalEnergies is experiencing profitable growth. The Company's objective is to reach a gross capacity for renewable electricity of 35 GW by 2025 and 100 GW by 2030, a level that would put it among the world's top five producers of renewable electricity (wind and solar).

To achieve growth with a return on average capital employed of more than 10%, the main levers are as follows: choosing projects selectively, integrating across the electricity value chain (generation, storage and trading, B2B and B2C sales), leveraging project management and offshore development skills to control costs, tapping external financing at competitive rates and making partial divestments in order to accelerate cash flow generation from projects and diversify the Company's portfolio exposure.

#### a. Executing the roadmap in renewables

The gross installed capacity of renewables rose from 10 GW in 2021 to 17 GW in 2022. The 2025 objective for gross installed capacity (worldwide) is secured; as the Company is now working on projects to achieve its 2030 objective of 100 GW. The move to gain 100% control of Total Eren in 2023 and its integration will help meet that goal.

#### b. Creating value by integrating across the electricity value chain

##### Developing flexible generation and storage capacities

The intermittence of solar and wind projects creates a need for flexible generation and storage capacity to ensure supply meets demand at all times and to guarantee grid stability.

**Flexible generation:** The Company began building a dispatchable power generation portfolio in 2015 comprised of combined-cycle gas turbine (CCGT) plants. This portfolio's capacity reached 5.6 GW[(1)] in 2022 with the commissioning of the CCGT in Landivisiau, France. With production of around 23 TWh in 2022 versus 8.4 TWh in 2021, these units helped offset the impact of weather events and the reduced availability of France's nuclear power plants. Ultimately, these capacities are targeted for decarbonization, either by their supply (biomethane or low-carbon hydrogen) or by sequestering their emissions (CCS).

**Storage:** TotalEnergies is leveraging the technological expertise at Saft Groupe, which is also making the most of this fast-growing market. In 2022, the Company commissioned a 25 MWh battery energy storage system (BESS) at the Carling platform. Saft Groupe also won significant contracts in New Zealand (100 MW BESS to enhance the stability of the national grid, while the production of intermittent renewable energies grows) and Côte d'Ivoire (10 MW ESS to facilitate grid integration of the country's first large-scale photovoltaic solar plant). **TotalEnergies has set itself a new objective for 2030: 5 GW of storage capacity deployed worldwide.**

##### Diversifying market exposure

TotalEnergies aims to build a portfolio with a good balance between regulated markets (mainly emerging countries) and deregulated markets (primarily OECD countries and Brazil). In the latter, which are often more competitive, the Company sees electricity prices trending upward over the long term and relies on a combination of long-term contracts (PPA[(2)] and Corporate PPA) and exposure to wholesale markets of up to 30% to make the most of the value created by price fluctuations. In 2022, TotalEnergies developed its electricity trading capacity which is both crucial for managing this exposure and a competitive advantage for optimizing the value of its projects.

##### Developing the customer portfolio

This integration goes all the way to sales to end customers, with packages tailored to consumers and businesses. By 2030 the Company has the objective to serve nearly 10 million consumers in Europe, and sell **130 TWh**. It also aims at **150,000 electric vehicle charging points**. For industrial customers, TotalEnergies offers long-term corporate purchase power agreements (Corporate PPAs) from its solar and wind farms, as well as distributed solar generation solutions.

In France, the Company is the market leader in solar power on buildings, having been awarded projects totaling more than 250 MW in the French Energy Regulatory Commission's CRE4 call for tenders since 2017.

### 2. Natural gas: a key fuel for the energy transition

#### a. Pursuing TotalEnergies' growth in LNG

In the gas markets, TotalEnergies has put a priority on being present in liquefied natural gas (LNG), which can be shipped everywhere in the world. LNG accounts for around 11%[(3)] of the total gas market and saw strong growth in 2022 (up 6%[(4)]) due to interrupted pipeline shipments of Russian gas to Europe. The imbalance between LNG supply and demand led to sharp price increases, from which the Company benefited.

On the flip side, certain consumers have reduced their demand; Pakistan, for example, announced in February 2023 that it intended to use new coal-fired power plants rather than gas to meet future electricity demand.

For LNG to fully play its role in the energy transition, it must remain affordable and the associated greenhouse gas emissions must be controlled across the value chain. TotalEnergies is working on that.

With 48 Mt sold in 2022, TotalEnergies has strengthened its position as the world's third largest LNG company[(5)]. Of these LNG sales, 99% of these LNG sales went to countries committed to Net Zero by the mid-century, giving them an alternative to coal and fuel oil.

#### b. LNG: Contributing to Europe's energy security in 2022

As the leader in regasification in Europe, TotalEnergies fully leveraged its capacities to offset the reduced deliveries from Russian gas pipelines by increasing the utilization rate from 50% in 2021 to 86% in 2022.

The connection of two additional floating storage and regasification units (FSRUs) in Lubmin, Germany (late 2022) and Le Havre, France (planned for the third quarter 2023) should lift the Company's total regasification capacity to more than 20 Mt in 2023. To supply these terminals, TotalEnergies is relying in particular on its position as the leading exporter of U.S. LNG to Europe with more than 10 Mt in 2022.

(1) From nine CCGT plants, two combined heat and power units and one gas-fired power and desalination plant.
(2) Power Purchase Agreement.
(3) Source: IEA, World Energy Outlook 2022.
(4) Source: S&P Global, IHS Global LNG Trade Data 2022.
(5) Second largest private player, third player including QatarEnergy; Company data.

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### 3. Anticipating changes in demand by adapting our petroleum products sales

With its Green Deal and Fit for 55 legislative package, the European Union has taken practical steps toward achieving its ambition to become the first carbon-neutral continent, promoting the development of low carbon vehicles. These major trends are prompting TotalEnergies to pursue its strategy of reducing its sales of petroleum products by 40% by 2030, **so that it does not sell or refine more fuel than it produces oil**.

Conversely, this strategy is leading the Company to develop actively in new mobilities: In low-carbon molecules, with the conversion of refineries into biorefineries initiated in Europe. In electric mobility, with the acceleration of the deployment plan of charging points on major roadways and in large cities in Europe. In hydrogen, with the implementation of a European network of hydrogen stations for trucks in partnership with Air Liquide.

**In Europe**, the Company continued to transform its service stations network into multi-energy hubs (with high-power charge points and hydrogen) and was more selective in its petroleum product sales. In March 2023, TotalEnergies announced the sale of its service station networks in Germany and the Netherlands and the creation of a joint venture with Couche-Tard to operate its networks in Belgium and Luxembourg.

**In France**, TotalEnergies was the most active player in 2022 for deploying high-power charge points on motorways to meet both government and motorist expectations.

The Company confirmed that it will stop selling fuel oil for power generation by 2025.

#### Developing non-energy uses of oil that emit less GHG

In addition to their use as fuel to produce energy, petroleum products are also used as material or components. The share of non-energy and low-emitting uses (petrochemicals and lubricants) in oil consumption will increase as mobility turns to decarbonized solutions such as electricity. This is why the Company is pursuing its growth strategy in petrochemicals by focusing on integrated complexes with favorable conditions for access to feedstock.

In 2022 the Company announced the commissioning of a new ethane cracker at Port Arthur (Texas) with a production capacity of 1 Mt/y of ethylene.

### 4. New low carbon energies

Electrification of uses alone may not be able to meet all needs, in particular in some sectors of transport (aviation, maritime) and heavy industry.

The energy transition also requires the development of low carbon energies based on the conversion of biomass and waste or the production of e-fuels using low carbon hydrogen and $CO_2$ as a raw material. TotalEnergies is developing these new energies (biofuels, biogas, hydrogen and e-fuels).

#### a. Biofuels

Over their lifecycle, biofuels emit 50% less $CO_2e$ than their fossil equivalents (in accordance with European standards[(1)]), making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstock (plants, residues, sugar, etc.) is hampering growth. Among those biofuels, TotalEnergies is putting a priority on producing sustainable aviation fuels (SAF) to decarbonize the aviation industry. Other decarbonization options besides biodiesel are available for road transportation, in particular electricity.

To avoid competition for arable land, TotalEnergies is developing solutions based primarily on food industry waste and residues. The agricultural feedstocks used to make these products comply with sustainability and traceability requirements concerning carbon footprint, non-deforestation and land use. The Company stopped the supply of palm oil and its derivatives in 2022 and has set a new target that **raises the share of circular feedstocks (used oil and animal fat) to more than 75% of feedstocks used to produce biofuels as from 2024**. In 2022, TotalEnergies signed an agreement with Saria to supply the future Grandpuits biorefinery with this type of feedstock.

#### b. Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas consisting primarily of methane. Compatible with existing transportation and storage infrastructure, it has a key role to play in decarbonizing the use of gas products (power generation, heating). As with biofuels, the roadblocks to development of biogas are the cost and local availability of feedstock.

TotalEnergies is rapidly ramping up in this market, which is essentially local. After acquiring Fonroche Biogaz in France and creating a joint venture with Clean Energy in the United States in 2021, the Company's biomethane production doubled to 0.5 TWh in 2022. The BioBéarn (France) biogas plant came on stream in January 2023 with a planned capacity of 160 GWh/y, making it the largest in France.

The Company's objective is to produce 2 TWh/y of biomethane by 2025 and up to 20 TWh/y by 2030 worldwide. To get there, it is forming strategic partnerships with the agricultural and wastewater treatment sectors to develop growth hubs in Europe and the United States. Thanks to the acquisition of PGB's activities, the main biogas producer in Poland, announced in March 2023, TotalEnergies plans to reach a capacity of 1.1 TWh/y, which should make it the second largest European biogas producer.

#### c. Hydrogen and e-fuels

**Hydrogen:** TotalEnergies is working to decarbonize the hydrogen used in its European refineries by 2030, a move that should reduce $CO_2$ emissions by 3 Mt/y by 2030. In addition to the partnership launched in 2021 at the Normandy refinery, TotalEnergies and Air Liquide signed a partnership agreement in November 2022 to build an innovative and virtuous system thanks to its circular integration of production and valorization of renewable hydrogen, at the Grandpuits biorefinery. At La Mède (France), the Masshylia project to produce green hydrogen in partnership with Engie is advancing.

**E-fuels:** In the longer term, the use of $CO_2$ as a feedstock will make it possible to decarbonize certain transportation sub-sectors even more broadly. Captured $CO_2$ can be combined with green hydrogen to produce synthetic fuels. TotalEnergies is staking out a position in this market. In early 2022, in the United Arab Emirates, the Company joined the initiative of Masdar and Siemens Energy to build a pilot green hydrogen plant that will be used to convert $CO_2$ into sustainable aviation fuel (SAF). TotalEnergies is also developing pilot facilities near its Leuna refinery in Germany dedicated to the use of green hydrogen and captured $CO_2$ to produce molecules that will be used to make sustainable aviation fuel.

(1) According to the sustainability and GHG gas reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources.

## OUR CLIMATE AMBITION: NET ZERO EMISSIONS BY 2050, TOGETHER WITH SOCIETY

The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TotalEnergies has factored this development into its strategy and set itself the ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society.

TotalEnergies promotes a policy of reducing GHG emissions based on the following principles in order of priority:

- avoid emissions,
- reduce them by using the best available technologies,
- offset the residual emissions thus minimized.

## REDUCING SCOPE 1+2 EMISSIONS, USING THE BEST AVAILABLE TECHNOLOGIES

### OBJECTIVES

#### We are moving aggressively to curtail emissions at our operated sites

In 2022, GHG emissions from our operated assets were 13% lower than in 2015, standing at close to 40 Mt $CO_2e$. Our objectives emissions include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of CCGT plants.

Across the 2015 scope of the Company's oil and gas activities, Scope 1+2 emissions from its operated facilities fell by more than **29% from 2015 levels, dropping from 46 to 33 Mt $CO_2$ in 2022.** In 2022, with more than 110 GHG emissions reduction projects coming to fruition, we reduced our Scope 1+2 emissions by 0.8 Mt $CO_2e$ across our operated facilities. Examples of our emissions reduction projects in 2022:

- Upstream: Emissions reduced by about 70 kt $CO_2$/y thanks to improvements in gas turbine efficiency and refinements to water injection pumps in Angola (Block 17),
- Refining: Emissions reduced by about 200 kt $CO_2$/y through improvements in energy use and recovery (Normandy, Antwerp).

#### 38 Mt $CO_2e$/year: A new bolder objective for 2025

In September 2022 the Company decided to launch a two-year, $1 billion plan to accelerate its energy efficiency initiatives with the goal of saving nearly 2 Mt $CO_2e$ across its oil and gas operations.

Thanks to that plan, TotalEnergies is accelerating our target emissions reduction for 2025 by 2 Mt $CO_2e$ annually: its new 2025 objective is to reduce Scope 1+2 emissions at its operated facilities to less than 38 Mt $CO_2e$/y. Our objective in 2030 remains inchanged at -40% in 2030 compared to 2015, net of 5 to 10 Mt from natural carbon sinks.

To reach it, the Company is mobilizing every tool at its disposal to prevent and reduce emissions from its operations. Offsetting from natural carbon sinks will begin in 2030, to offset residual emissions in pursuit of its objective.

#### 2030 objective consistent with Paris Agreement

This objective of a 40% reduction in net emissions[1] of GHG (Scope 1+2) for the operated activities is in line with the reduction target of the European Union's "Fit for 55 program" (-37% between 2015 and 2030) and the IEA's Net Zero Emissions 2022 (-35% between 2015 and 2030).

### IMPROVE THE EFFICIENCY OF OUR FACILITIES

#### Progress toward eliminating routine flaring

Curbing routine flaring is a priority for reducing $CO_2$ and methane emissions. In 2000, TotalEnergies committed to discontinuing routine flaring on its new projects. As a founding member of the World Bank's "Zero Routine Flaring by 2030" initiative since 2014, the Company has pledged to end this type of flaring by 2030 and its goal is to reach a level below 0.1 $Mm^3$/d by 2025. The volume of routine flaring fell from 0.7 $Mm^3$/d in 2021 to 0.5 $Mm^3$/d in 2022 - a 93% reduction between 2010 and 2022. Total flaring, including safety flaring as well as routine and non-routine flaring, fell 7% in 2022 from the previous year. As an example of reduction projects in 2022, flaring was cut at Italy's Tempa Rossa field by 32 kt $CO_2e$ thanks to changes in fluid export and separation processes.

#### $1 Billion plan Over Two Years for Faster Energy Efficiency Results

Generating energy savings in the Company's operations yields dividends in several ways: TotalEnergies contributes to the collective campaign for energy efficiency, helps to reduce its carbon emissions and lowers its costs. In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. To that end, the Company will be investing $1 billion in 2023 and 2024 in efforts to further reduce its energy use. This plan, centered on four key pathways and led by OneTech, supports the measures adopted over the past several years within the Company's operating segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 30 initiatives at Marketing & Services and Integrated Gas, Renewables & Power.

### PROGRESS TOWARD ELIMINATING METHANE EMISSIONS

Methane is a greenhouse gas with a global warming potential 28 times higher than that of $CO_2$ and a much shorter atmospheric lifetime[2]. This makes controlling methane emissions a priority in efforts to attenuate global warming. To date, 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come from energy, waste and agriculture. Around 25%[3] stem from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to reduce methane emissions to close to zero by 2030. TotalEnergies is working towards this goal through the Oil & Gas Climate Initiative (OGCI) and wants its conduct to be exemplary.

The Company has been working on this issue for many years and has already halved its methane emissions between 2010 and 2020.

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Around 12 years compared with centuries for $CO_2$. Global Warming Potential of 80 over 20 years and 28 over 100 years Global Warming Potential at 100 years, according to the IPCC 5th Assessment Report, 2014.
(3) IEA - Global Methane Tracker 2022.

### A clear ambition: Zero methane and tangible objectives

In early 2022, the Company set very ambitious, specific targets for the decade ahead: **-50% by 2025 and -80% by 2030, compared to 2020**[1]. These targets cover all of the Company's operated activities and are in line with the 75% reduction in methane emissions from coal, oil and gas between 2020 and 2030 outlined in the IEA's Net Zero Emissions by 2050 scenario. The Company has also maintained its methane intensity target[2] of below 0.1% for its operated gas facilities. In 2022, its methane emissions[3] declined by 42 kt, or 34% from 2020 levels.

### Deployment of AUSEA drones: From estimating to measuring methane emissions

Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions in real-life conditions, thanks to the AUSEA (Airborne Ultralight Spectrometer for Environmental Application) drones deployed across virtually all its operated sites worldwide. In 2022, a campaign to detect and measure emissions on site in real-life conditions covered 95% of operated sites[4] in the Upstream. More than 1,200 AUSEA flights were carried out in eight countries to cover 125 sites.

AUSEA detection technology, which consists of an ultra-light $CO_2$ and $CH_4$ sensor mounted on a drone, was developed in cooperation with the French National Center for Scientific Research (CNRS) and Université de Reims Champagne Ardennes. It is at the cutting edge of scientific research for detecting and quantifying methane emissions on site, with a high level of accuracy (>1kg/h).

TotalEnergies is in advanced discussions with certain operators of our non-operated assets to make this technology available and to carry out targeted detection campaigns.

### Targeted actions for each methane source, asset by asset

The reduction in emissions is a direct result of an action program at the Company's facilities targeting each specific source of methane (venting, flaring, fugitive emissions and incomplete combustion) and adapted to the specific features of each asset.

### Leading the industry through OGMP 2.0

In its "An Eye on Methane" report for 2022, the United Nations Environment Programme (UNEP)[5], confirmed TotalEnergies' **Gold Standard** status. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

## EXPANDING GEOLOGICAL CARBON STORAGE TO REDUCE OUR EMISSIONS AND THOSE OF OUR CLIENTS

CCS (Carbon Capture and Storage) refers to an industrial and commercial process that involves capturing $CO_2$, collecting it from industrial sites known as "carbon hubs", transporting it via ship or pipeline and storing it under the seabed. Saline aquifers[6] and former oil and gas reservoirs offer a safe and permanent means of sequestering carbon. Under the IEA's NZE scenario, the world will still be consuming oil and gas in 2050; consequently, the need for CCS has been assessed at 6 Gt $CO_2$ annually by 2050, compared to a current global volume of about 40 Mt $CO_2$ captured per year. The emerging CCS value chains require immediate investment if they are to be viable and bring carbon neutrality within reach. TotalEnergies is making that investment to reduce emissions from its facilities and those of its customers.

The Company's objective for 2030 is to store more than 10 Mt/y $CO_2$ on an equity share basis. Close to $100 million were invested in 2022, and TotalEnergies plans to increase these investments to $300 million annually in order to reach its objectives.

### From pilot projects to full-scale operation: the emergence of a new industry

In Europe, the North Sea has the potential to become a major CCS hub thanks to dedicated funds from the European Union (the Innovation Fund, the Connecting Europe Facility - CEF) or the increase of the ETS carbon price (80 €/t $CO_2$ at year-end 2022), as well as backing from neighboring countries: Denmark is allocating $2.5 billion to CCUS projects in 2022 and 2023, while the United Kingdom is strengthening its regulatory framework for commercial CCS and boosting its financial support, with a package of £20 billion over 20 years. Moreover, Norway, the U.K. and Denmark have each launched a tender process to award exploration licenses for $CO_2$ storage.

The Company is developing several CCS projects in that region, where we can capitalize on this favorable regulatory climate. In 2022 our first commercial project, Northern Lights, reached an advanced stage of construction: drilling is currently underway and work has begun on the receiving terminal for $CO_2$ and transport vessels.

In August 2022, TotalEnergies and its partners have signed with Yara, ammonia and fertilizer plant, the world's first commercial agreement for the transport and storage of $CO_2$ captured on an industrial site in the Netherlands. As of 2025, 800 kt/y $CO_2$ should be captured, compressed, liquefied in the Netherlands, and transported to the Northern Lights site for permanent storage.

### Expanding $CO_2$ transportation and storage services for customers

In addition to Northern Lights, TotalEnergies is developing several CCS projects that all provide a new use for its operated gas reservoirs at the end of their working life and their offshore facilities.

#### Aramis Project, The Netherlands

This project – developed in the Netherlands by TotalEnergies alongside Shell, Energie Beheer Nederland (EBN) and Gasunie – should offer large-scale, flexible carbon transportation services and open access to offshore carbon storage capacity as a decarbonization solution for industry. Conceptual engineering for phase 1 of the project was completed in 2022 with the goal of storing the first volumes of $CO_2$ in 2027. The project is targeting storage of 5 Mt/y $CO_2$ in its two initial stages, with potential annual storage capacity exceeding 8 Mt/y $CO_2$ by 2030.

(1) Excluding biogenic methane.
(2) The intensity of methane emissions in relation to the commercial gas produced.
(3) Of which 97% from Upstream.
(4) Calculated as a percentage of 100% operated production.
(5) "An Eye on Methane": second IMEO report (Internation Methane Emissions Observatory).
(6) A saline aquifer used for $CO_2$ storage is a geological formation made up of sandstone in which highly saline water circulates, unsuitable for consumption or agricultural use and covered by an impermeable rock that allows the $CO_2$ to be contained permanently.

#### Bifrost Project, Denmark

Bifrost is a CCS project aiming at developing infrastructure to link European industrial hubs with offshore storage in the North Sea. In partnership with Denmark's state-owned Nordsøfonden, TotalEnergies obtained two licenses in early 2023 encompassing the Harald natural gas fields it operates and a saline aquifer, to explore the area's $CO_2$ storage potential. TotalEnergies will operate under those licenses and plans to develop a project totaling more than 5 Mt/y $CO_2$ by 2030, sourced from Denmark as well as Germany, Sweden and Poland.

#### Reducing carbon emissions at the Company's facilities

CCS is also an important lever for reducing emissions at the Company's facilities, whether it is the operator or partner. Those projects span both upstream (native $CO_2$ capture and storage in Papua New Guinea and at Ichtys LNG) and downstream, with studies underway for the Normandy, Antwerp and Leuna refineries.

In May 2022, an agreement was finalized with Sempra Infrastructure, Mitsui & Co., Ltd. and Mitsubishi Corporation to develop the Hackberry Carbon Sequestration (HCS) project at Cameron LNG, a natural gas liquefaction terminal in the US state of Louisiana. The project will provide permanent storage of up to 2 Mt/y $CO_2$ in a saline aquifer.

### OFFSETTING RESIDUAL EMISSIONS WITH NATURAL CARBON SINKS

Forest preservation and restoration can be levers to achieve carbon neutrality worldwide by 2050. The Paris Agreement encourages these solutions as a way to meet climate change mitigation targets, as well as the related market mechanisms for carbon credit trading. The COPs in Glasgow (2021) and Sharm El-Sheikh (2022) yielded progress toward that goal, with the adoption of rules for implementation of Article 6 of the Paris Agreement and the appointment of the supervisory body envisioned in Article 6.4.

Nonetheless, the ongoing enhancements to the framework for meeting that goal raise some complex issues. The civil society is rightly demanding measures to strengthen the integrity and permanence of emissions reductions obtained through carbon credits, and is warning of the need to manage risks that have adverse effects on people or the environment.

TotalEnergies is backing the efforts underway to create a climate of trust that addresses those legitimate concerns and ultimately yields a robust and reputable voluntary credit system, one that boosts public and private funding to ensure that projects beneficial to the climate, people and diversity can be developed at the appropriate scale. That is one of the challenges facing COP 28, to be held in the United Arab Emirates.

#### Avoid, reduce, offset

The Company has embarked on a fundamental transformation in which the priority is to "avoid" and "reduce" emissions. Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, which will continue gradually until 2050, and will offset only its Scope 1+2 residual emissions, amounting to about 10% of the Company's global footprint.

To that end, the Company is investing in forestry, regenerative agriculture and wetlands protection projects. Its approach consists of combining and balancing the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When this is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

In 2022, TotalEnergies forged new partnerships and agreements with recognized stakeholders in Gabon, Peru, Southeast Asia and Guatemala. At year-end 2022, our stock of credits stood at just under 7 million. We have budgeted $100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly $675 million over their lifespan, with the accumulated credits expected to total 45 million in 2030 and 69 million over the lifespan of the projects. The final tally of credits obtained will be determined once the projects have been completed.

### OUR DECARBONIZATION PROGRESS IN 2022

Continued progress in 2022, aligned with, and often ahead of, with its objectives by 2030, demonstrates year after year the strong commitment in the transformation of the Company on the way to its ambition for 2050:

- Emissions from operated facilities have declined by **more than 13% since 2015** - this takes into account 7 Mt $CO_2e$ of emissions from CCGTs corresponding to the implementation of its new strategy in the field of electricity to have flexible power generation capacities - the decrease on operated oil & gas facilities was therefore actually more than 30%.

## TARGETS AND INDICATORS RELATED TO CLIMATE CHANGE

TotalEnergies has set targets and introduced a number of indicators to steer its performance.

The Company's climate targets include among others the following:

| 2030 targets worldwide (Scope 1+2) | In facts |
|---|---|
| – Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt $CO_2e$ in 2015 to less than 38 Mt $CO_2e$ by 2025. By 2030, the target is a reduction of at least 40% of net emissions[1] compared to 2015 for its operated activities, thus bringing them to between 25 Mt and 30 Mt $CO_2e$ | A reduction in GHG emissions (Scope 1+2) from operated facilities from 46 Mt $CO_2e$ in 2015 to **40 Mt $CO_2e$** in 2022 |
| – Improve the **energy efficiency** of operated facilities by 1% per year from 2010 | – **15%** improvement in energy efficiency between 2010 and 2022 |
| – Reduce **methane emissions**[2] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030 | – Methane emissions already reduced by **50%** between 2010 and 2020 and by **34%** between 2020 and 2022 |
| – Maintain **methane emissions intensity** below 0.1% of commercial gas produced at operated gas facilities | – Methane intensity of less than **0.1%** for operated gas facilities |
| – Reduce **routine flaring**[3] to less than 0.1 $Mm^3/d$ by 2025, with the goal of eliminating it by 2030 | – More than **90%** reduction in routine flaring between 2010 and 2022 |

It should be noted that the decrease in the Company's GHG emissions in 2020, and to a lesser extent in 2021, is partly related to the impact of the COVID-19 pandemic on TotalEnergies's activities, hence the references to estimates excluding the COVID-19 effect.

### Indicators related to climate change[4]

| GHG emissions | | Operated domain 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| **SCOPE 1 Direct GHG emissions** | **Mt $CO_2e$** | **37** | **34*** *(33)* | **38*** *(36)* | **42** |
| **BREAKDOWN BY SEGMENT** | | | | | |
| Upstream oil & gas activities | Mt $CO_2e$ | 14 | 14 | 16 | 19 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | Mt $CO_2e$ | 9 | 5 | 3 | – |
| Refining & Chemicals | Mt $CO_2e$ | 15 | 15* *(14)* | 17 | 22 |
| Marketing & Services | Mt $CO_2e$ | <1 | <1 | <1 | <1 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | Mt $CO_2e$ | 23 | 20* *(19)* | 22* *(21)* | 22 |
| Eurasia (incl. Russia) / Oceania | Mt $CO_2e$ | <1 | 1 | 1 | 5 |
| Africa | Mt $CO_2e$ | 9 | 9 | 10 | 12 |
| Americas | Mt $CO_2e$ | 5 | 5 | 4 | 4 |
| **BREAKDOWN BY TYPE OF GAS** | | | | | |
| $CO_2$ | Mt $CO_2e$ | 36 | 32 | 34 | 39 |
| $CH_4$ | Mt $CO_2e$ | 1 | 1 | 2 | 2 |
| $N_2O$ | Mt $CO_2e$ | <1 | <1 | <1 | <1 |
| **SCOPE 2 Indirect emissions from energy use** | **Mt $CO_2e$** | **2** | **2*** *(2)* | **3*** *(3)* | **4** |
| of which Europe: EU 27+ Norway +UK + Switzerland | Mt $CO_2e$ | 1 | 1* *(1)* | 2* *(2)* | 2 |
| **SCOPE 1+2** | **Mt $CO_2e$** | **40** | **37*** *(35.7)* | **41*** *(38)* | **46** |
| of which oil & gas facilities | Mt $CO_2e$ | 33 | 33* *(32)* | 39* *(36)* | 46 |
| of which CCGT | Mt $CO_2e$ | 7 | 4 | 3* *(3)* | – |
| Direct emissions of biogenic $CO_2$[5] | Mt $CO_2e$ | 0.1 | | | |

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(4) Refer to point 5.11 of chapter 5 for the reporting perimeter.
(5) Biogenic $CO_2$ emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

| Methane emissions[a] | | Operated domain 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| | kt $CH_4$ | **42** | **49** | **64** | **94** |
| **BREAKDOWN BY SEGMENT** | | | | | |
| Upstream oil & gas activities | kt $CH_4$ | 41 | 48 | 62 | 92 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | kt $CH_4$ | 1 | <1 | <1 | 0 |
| Refining & Chemicals | kt $CH_4$ | 1 | 1 | 1 | 1 |
| Marketing & Services | kt $CH_4$ | 0 | 0 | 0 | 0 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | kt $CH_4$ | 7 | 7 | 12 | 9 |
| Eurasia (incl. Russia) / Oceania | kt $CH_4$ | 1 | 1 | 3 | 33 |
| Africa | kt $CH_4$ | 23 | 23 | 31 | 49 |
| Americas | kt $CH_4$ | 12 | 18 | 18 | 3 |

| Intensity indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[b] | kg $CO_2$e/boe | 17 | 17 | 18 | 21 |
| Intensity of methane emissions from operated oil & gas facilities (Upstream) | % | 0.11 | 0.13 | 0.15 | 0.23 |
| Intensity of methane emissions from operated gas facilities | % | <0.1 | <0.1 | <0.1 | <0.1 |

| Other indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| Net primary energy consumption (operated scope) | TWh | 166 | 148 | 147 | 153 |
| Renewable energy consumption (operated scope) | TWh | 1 | | | |
| Global energy efficiency indicator (GEEI) | Base 100 in 2010 | 85.1 | 87.0 | 90.2 | 90.8 |
| Flared gas (Upstream oil & gas activities operated scope) (including safety flaring, routine flaring and non-routine flaring) | $Mm^3/d$ | 3.3 | 3.6 | 4.2 | 7.2 |
| of which routine flaring | $Mm^3/d$ | 0.5 | 0.7 | 0.6 | 2.3[c] |

* Valuation of these indicators excluding the COVID-19 effect.
(a) Excluding biogenic methane emissions, equal to less than 1 kt $CH_4$ in 2022. Biogenic methane is nevertheless included in the calculation of Scope 1.
(b) This indicator doesn't include integrated LNG assets in its perimeter.
(c) Volumes estimated upon historical data.

## 3.6.8.5 SUPPLIERS

### SUPPLIER ASSESSMENT

#### The supplier pre-qualification process

The IT Supplier pre-qualification tool developed in 2019, gradually rolled out, is designed to automate and document the supplier pre-qualification process. At the end of 2022, more than 17,000 Suppliers were integrated into this tool.

#### The Supplier assessment process

Since 2016, the Company has had audits of human rights and working conditions at its Suppliers carried out by an independent external service provider. A targeted audit plan is defined each year and includes at-risk Suppliers. In 2022, 200 Suppliers were audited, covering 69,000 workers.

In 2022, TotalEnergies updated the audit framework in order to add environmental issues to it and had nine tests carried out, with a view to rolling out this approach from the 2023 audit plan onwards.

In 2022, the Company set itself the objective of assessing its 1,300 priority Suppliers in terms of human rights and environment by the end of 2025 and then every three years, on their performance in terms of sustainable development (including human rights, working conditions and environment) through assessments covering these aspects.

#### Other initiatives

Work to improve the transparency of the Company's supply chain, including traceability audits on the supply chain, was initiated in 2021, and continued in 2022 with studies on human and environmental rights in the supply of minerals, ore and raw materials. With regard to photovoltaic panels, TotalEnergies has joined a pool of American developers who jointly order and share traceability audits. At the end of 2022, six Suppliers with which the Company works had been audited via these traceability audits.

Saft Groupe conducts annual information gathering campaigns with its suppliers, drawing on the Conflict Minerals Reporting Template (CMRT) and, for cobalt, the Extended Minerals Reporting Template (EMRT) provided by the Responsible Minerals Initiative® (RMI®) of which Saft Groupe became a member in 2022. These tools facilitate the transfer of information throughout the supply chain regarding the processing units of these ores as well as their countries of origin. As part of a progress-led approach, Saft Groupe is also a member of the Global Battery Alliance (GBA), within the World Economic Forum (WEF), a global platform for establishing and collaborating on a sustainable battery value chain.

Finally, pursuant to Rule 13p-1 of the U.S. Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TotalEnergies has filed with the United States Securities and Exchange Commission (SEC) an annual document relating to "conflict minerals"[(1)] sourced from the Democratic Republic of the Congo or neighboring countries. The document indicates whether, during the preceding calendar year, any such minerals were necessary to the functionality or production of a product manufactured by TotalEnergies SE or one of its consolidated entities (or contracted to be manufactured). The purpose of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, please refer to TotalEnergies' most recent publication, available on the TotalEnergies website or sec.gov.

## MITIGATION AND PREVENTIVE ACTIONS

In February 2022, the Company completed the update of the Fundamental Principles of Purchasing to more precisely detail its requirements with regard to its Suppliers, particularly in terms of human rights, respect for biodiversity and responsible use of natural resources.

The training of buyers and the awareness raising and mobilization of Suppliers for a responsible purchasing approach are among the priorities of TotalEnergies' Sustainable Procurement program.

### Training of buyers

TotalEnergies has set up a number of channels of communication to raise employees' awareness of risks and concerns relating to its supply chain. Training modules explaining the Company's ethical commitments and the Fundamental Principles of Purchasing have been developed for and made available to buyers of the Company. In addition to training buyers, numerous awareness-raising initiatives are regularly carried out in order to strengthen the responsible purchasing culture within the Company.

In July 2022, TotalEnergies launched its first training program on responsible purchasing for its buyers. More than 455 of them have already completed this online training course, i.e. 32% of buyers at the end of 2022.

In addition, all new employees of TotalEnergies Global Procurement receive training which includes a section on sustainable procurement, presenting the Fundamental Principles of Purchasing and training on anti-corruption. Awareness webinars on specific topics also took place in 2022, for example on human rights (300 buyers). A quarterly newsletter on responsible purchasing for the Company's Purchasing population (approximately 1,400 people) was also launched and several forums were organized to regularly communicate the progress of the Sustainable Procurement program to all of the Company's buyers.

### Awareness-raising and training of Suppliers

The Company regularly conducts awareness-raising actions with its Suppliers on the responsible procurement approach, particularly on respect for human rights, the protection of workers' health and safety and the preservation of the environment

In June 2022, TotalEnergies set up a platform dedicated to monitoring Suppliers' performance in terms of sustainable development. More than 500 of the 1,300 priority Suppliers invited had already joined this platform at the end of 2022.

In May 2022, the Company published a Practical Guide on Human Rights at Work for Suppliers, available on the TotalEnergies website (heading sustainability / supply chain). The *Suppliers Day* in November 2022 - an event bringing together nearly 200 representatives of the Company's strategic suppliers - focused on sustainable development. The Chairman and Chief Executive Officer and two members of the Executive Committee emphasized the Company's ambition and the commitments towards sustainability expected from suppliers. This event was also the opportunity to give a *Sustainability Award* for the first time to one of the Company's suppliers.

### Progress with other companies

Since 2018 TotalEnergies has been a member of the Action Platform on Decent Work in Global Supply Chains organized by the United Nations Global Compact, and in that capacity it takes part in various workshops that aim to help the Global Compact member companies make progress in that area. In December 2018, the Company committed to pursuing its efforts with regard to decent work and respect for human rights in its supply chain by signing six commitments contained in the United Nations Global Compact. TotalEnergies is also a member of the IPIECA Supply Chain Working Group.

## WHISTLEBLOWING MECHANISMS

An email address (mediation.fournisseurs@totalenergies.com) is available on the TotalEnergies website to enable the Company's suppliers to contact the dedicated internal mediator. The mediator's mission is to facilitate relations between the Company and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of recourse to mediation.

## MONITORING PROCEDURES

The Responsible Purchasing Department within TotalEnergies Global Procurement monitors the implementation of the Sustainable Procurement program, particularly in terms of Suppliers' respect for human rights, health, safety and the environment. The implementation of this program is monitored by the Company's governing bodies and a Steering Committee meeting at least once a year.

(1) Rule 13p-1 defines "conflict minerals" (irrespective of their geographical origin) as: columbite-tantalite (coltan), cassiterite, gold and wolframite as well as their derivatives, which are limited to tantalum, tin and tungsten.

# 4

# Report on corporate governance

The information set out in this chapter forms the Board of Directors' report on corporate governance, produced pursuant to Article L. 225-37 of the French Commercial Code. This report was prepared on the basis of the deliberations of the Board of Directors, and with the assistance of several of the Corporation's corporate functional divisions, including in particular the Legal, Finance and People & Social Engagement Departments. After the sections relevant to their respective duties were reviewed by the Governance and Ethics Committee and the Compensation Committee, the report was approved by the Board of Directors.

# 4.1 Administration and management bodies

## 4.1.1 Composition of the Board of Directors

**As of March 15, 2023**

| 14 | 1 | 82% | 6 years | 45.5% | 5 |
|---|---|---|---|---|---|
| directors | Lead Independent Director | independent directors[(a)] | Average length of service on the Board | of women[(b)] | nationalities represented |

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3). For more information, refer to point 4.1.1.4 of this chapter.
(b) Excluding the directors representing employees in accordance with Article L. 225-27-1 of the French Commercial Code and the director representing employee shareholders in accordance with Articles L. 225-23 and L. 22-10-5 of the French Commercial Code.

The Corporation is administered by a Board of Directors whose 14 members include a director representing employee shareholders elected on the proposal of the shareholders specified in Article L. 225-102 of the French Commercial Code, in accordance with the provisions of Articles L. 225-23 and L. 22-10-5 of the French Commercial Code (hereafter referred to as the "director representing employee shareholders"), and two directors representing employees appointed in accordance with the provisions of Article L. 225-27-1 of the French Commercial Code and the Corporation's Articles of Association (the first appointed by the Central Social and Economic Works Council of the Upstream Global Services UES Amont – Global Services – Holding and the second appointed by the SE Committee, known as "TotalEnergies European Works Council").

Mr. Patrick Pouyanné is the Chairman and Chief Executive Officer of TotalEnergies SE. He has served as Chairman of the Board of Directors since December 19, 2015, the date on which the functions of Chairman of the Board of Directors and Chief Executive Officer of the Corporation were combined (refer to point 4.1.5.1 of this chapter).

A Lead Independent Director is in place. His duties are specified in the Rules of Procedure of the Board of Directors (refer to point 4.1.2.1 of this chapter).

Directors are appointed for a three-year period (Article 11 of the Corporation's Articles of Association)[(1)]. The terms of office of the members of the Board are staggered to space more evenly the renewal of appointments and to ensure the continuity of the work of the Board of Directors and its Committees, in accordance with the recommendations of the AFEP-MEDEF Code, which the Corporation refers to.

The profiles, experience and expertise of the directors are detailed in the biographies hereafter.

### CHANGES THAT OCCURRED WITHIN THE MEMBERSHIP OF THE BOARD OF DIRECTORS AND COMMITTEES DURING FISCAL YEAR 2022

**Appendix 3 of the AFEP-MEDEF Code – Situation as of March 15, 2023**

| | Departure | Appointment/designation | Reappointment |
|---|---|---|---|
| **Board of Directors** | | | |
| 05/25/2022 | Valérie Della Puppa Tibi[(a)] | Emma de Jonge[(a)] | Lise Croteau |
| | | | Maria van der Hoeven |
| | | | Jean Lemierre |
| **Governance and Ethics Committee** | | | |
| 05/25/2022 | | Jacques Aschenbroich | |
| **Compensation Committee** | | | |
| 05/25/2022 | | Jacques Aschenbroich | |
| | Valérie Della Puppa Tibi[(a)] | Angel Pobo[(b)] | |
| **Strategy & CSR Committee** | | | |
| 05/25/2022 | Angel Pobo[(b)] | Emma de Jonge[(a)] | |

(a) Director representing employee shareholders.
(b) Director representing employees.

(1) The Articles of Association also contain specific provisions concerning the terms of office of directors representing employees, taking into account the method of their appointment.

# OVERVIEW OF THE BOARD OF DIRECTORS AS OF MARCH 15, 2023

### Appendix 3 of the AFEP-MEDEF Code

| | Personal information | | | | Experience | Position on the Board | | | | Participation in Board Committees |
|---|---|---|---|---|---|---|---|---|---|---|
| As of March 15, 2023 | Age | Sex | Nationality | Number of shares | Number of directorships[a] | Independence[b] | Initial date of appointment | Term of office expires | Length of service on the Board | |
| Patrick Pouyanné<br>*Chairman and Chief Executive Officer* | 59 | M | | 338,695 | 1 | x | 2015 | 2024 | 8 | ✓ |
| Jacques Aschenbroich | 68 | M | | 1,000 | 2 | ✓ | 2021 | 2024 | 2 | ✓ |
| Patricia Barbizet | 67 | F | | 14,050 | 1 | x | 2008 | 2023 | 15 | ✓ |
| Marie-Christine Coisne-Roquette<br>*Lead Independent Director* | 66 | F | | 5,000 | 1 | ✓ | 2011 | 2023 | 12 | ✓ |
| Jérôme Contamine | 65 | M | | 10,553 | 2 | ✓ | 2020 | 2023 | 3 | ✓ |
| Lise Croteau | 62 | F | | 1,100 | 2 | ✓ | 2019 | 2025 | 4 | ✓ |
| Mark Cutifani | 64 | M | | 2,000 | 0 | ✓ | 2017 | 2023 | 6 | ✓ |
| Romain Garcia-Ivaldi<br>*Director representing employees* | 34 | M | | 178 | 0 | n/a | 2020 | 2023 | 3 | ✓ |
| Maria van der Hoeven | 73 | F | | 1,800 | 0 | ✓ | 2016 | 2025 | 7 | ✓ |
| Glenn Hubbard | 64 | M | | 1,000 | 1 | ✓ | 2021 | 2024 | 2 | |
| Anne-Marie Idrac | 71 | F | | 1,539 | 1 | ✓ | 2012 | 2024 | 11 | ✓ |
| Emma de Jonge<br>*Director representing employee shareholders* | 59 | F | | 184 | 0 | n/a | 2022 | 2025 | 1 | ✓ |
| Jean Lemierre | 72 | M | | 1,042 | 1 | ✓ | 2016 | 2025 | 7 | ✓ |
| Angel Pobo<br>*Director representing employees* | 53 | M | | 539 | 0 | n/a | 2020 | 2023 | 3 | ✓ |

(a) Number of directorships held by the director at listed companies outside his or her group, including foreign companies, assessed in accordance with the recommendations of the AFEP-MEDEF Code, point 20 (refer to point 4.1.1.3 of this chapter).
(b) As of December 31, 2022.

### As of March 15, 2023

**Audit Committee**

**5 members**
**75% independent members[a]**

Maria van der Hoeven*
Patricia Barbizet
Jérôme Contamine**
Lise Croteau**
Romain Garcia-Ivaldi[b]

**Governance and Ethics Committee**

**5 members**
**80% independent members**

Marie-Christine Coisne-Roquette*
Jacques Aschenbroich
Patricia Barbizet
Anne-Marie Idrac
Jean Lemierre

**Compensation Committee**

**4 members**
**100% independent members[a]**

Mark Cutifani*
Jacques Aschenbroich
Marie-Christine Coisne-Roquette
Angel Pobo[b]

**Strategy & CSR Committee**

**6 members**
**60% independent members[a]**

Patrick Pouyanné*
Patricia Barbizet
Marie-Christine Coisne-Roquette
Anne-Marie Idrac
Emma de Jonge[c]
Jean Lemierre

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).
(b) Director representing employees.
(c) Director representing employee shareholders.
* Chair of the Committee.
** Financial expert.

# RENEWAL OF DIRECTORSHIPS AND APPOINTMENT PROPOSED TO THE SHAREHOLDERS' MEETING TO BE HELD ON MAY 26, 2023

The directorships of Ms. Patricia Barbizet, Ms. Marie-Christine Coisne-Roquette, Mr. Jérôme Contamine and Mr. Mark Cutifani, as well as the directorships of the two directors representing employees (Mr. Romain Garcia-Ivaldi and Mr. Angel Pobo) expire at the end of the Annual Ordinary Shareholders' Meeting on May 26, 2023.

### Renewal of directorships

At its meeting on March 15, 2023, the Board of Directors, upon the proposal of the Governance and Ethics Committee, decided to submit to the Annual Shareholders' Meeting to be held on May 26, 2023, the renewal of the directorships of Ms. Marie-Christine Coisne-Roquette and Mr. Mark Cutifani for a three-year term, to expire at the end of the Annual Shareholders' Meeting to be held in 2026 to approve the 2025 financial statements.

- **Ms. Marie-Christine Coisne-Roquette**, a French national, has been a director of TotalEnergies SE since May 13, 2011. She has assumed the functions of Lead Independent Director since May 29, 2020. As it was the case for Mrs. Patricia Barbizet in order to ensure the continuity with respect to the position of Lead Independent Director, the Board proposes to renew her mandate, it being specified that given her seniority on the Board, Mrs. Marie-Christine Coisne-Roquette will no longer be independent under the rules of the Afep-Medef Code and will thus no longer be able to assume the function of Lead Independent Director.

Furthermore, the renewal of her mandate will allow her to continue to provide the Board of Directors with her international experience as an attorney and as a business executive, and of risk management, as well as her knowledge of the electrical equipment distribution sector.

- **Mr. Mark Cutifani**, an Australian national, has been a director of TotalEnergies SE since May 26, 2017. He is Chairman of the Compensation Committee. The renewal of his mandate will allow him to continue to provide the Board of Directors with his expertise in the industry and the cyclical economy of raw materials, his international expertise and his experience as a chief executive officer.

The Board of Directors thanked Mrs. Patricia Barbizet, former Lead Independent Director, for her exceptional contribution to the works of the Board of Directors and its Committees during the last 15 years. In particular, Mrs. Patricia Barbizet was able to provide the Board with her recognized skills in the field of governance and her experience in financial matters. The Board thanked and welcomed the work performed by Mr. Jérôme Contamine who was able to provide the Board and the Audit Committee notably with his cutting-edge skills in financial matters and his experience in the oil & gas sector.

#### Proposed appointments of directors

In accordance with its wish to support the transformation of the Company by appointing a director with experience in electricity and renewables which came out from the last annual assessment on the Board functionning, the Board of Directors, at its meeting on March 15, 2023, decided, on the proposal of the Governance and Ethics Committee, to submit to the Annual Shareholders' Meeting on May 26, 2023 the appointment of Mr. Dierk Paskert as a director for a three-year term, expiring at the end of the Annual Shareholders' Meeting to be held in 2026 to approve the 2025 financial statements.

**Mr. Dierk Paskert**, a German national, has extensive experience in the electricity and renewables business, which will contribute to the support provided by the Board for the transformation of the Company.

Furthermore, the Board decided, upon proposal of the Governance and Ethics Committee, to submit to the Annual Shareholders' Meeting on May 26, 2023, the appointment of Ms. Anelise Lara as a director for a three-year term, expiring at the end of the Annual Shareholders' Meeting to be held in 2026 to approve the 2025 financial statements.

**Ms. Anelise Lara,** a Brazilian national, has a long experience in the oil & gas and Gas & Power sectors, which will usefully complement the various skills existing within the Board. Her knowledge of Brazil is also appreciable given the size of the Company's capital employed in that country, both in terms of oil and gas and renewable energies. She is also committed to promoting diversity by helping young women to progress in their careers.

The Board of Directors would like to point out that the directors of TotalEnergies SE have different profiles. They are present, active and involved in the work of the Board of Directors and the Committees in which they participate. The complementarity of their professional experience and their skills are all assets for the quality of the deliberations of the Board of Directors in the context of the decisions it is called upon to make.

#### Designation of the new directors representing employees

The directorships of Mr. Romain Garcia-Ivaldi and Mr. Angel Pobo, directors representing employees, expires at the end of the Annual Ordinary Shareholders' Meeting on May 26, 2023.

In accordance with the provisions of Article L. 225-27-1 of the French Commercial Code and with the Corporation's Articles of Association, the Central Social and Economic Works Council of the Corporation, at its meeting on February 28, 2023, reappointed Mr. Romain Garcia-Ivaldi as a director representing employees. The European Company Committee (the "SE Committee"), at its meeting on February 16, 2023, reappointed Mr. Angel Pobo for a new mandate of director representing employees.

Mr. Romain Garcia-Ivaldi and Mr. Angel Pobo, directors representing employees thus designated, will exercice their mandates for a three-year term to expire at the end of the Annual Shareholders' Meeting to be held in 2026 to approve the 2025 financial statements.

### DESIGNATION OF THE NEW LEAD INDEPENDENT DIRECTOR

Ms. Marie-Christine Coisne-Roquette has assumed the functions of Lead Independent Director since May 29, 2020. Given her seniority on the Board, Ms. Coisne-Roquette will no longer be independent under the rules of the Afep-Medef Code and will thus no longer be able to assume the function of Lead Independent Director. In this context, the Board of Directors, at its meeting on February 7, 2023, decided that, at the end of the Shareholders' Meeting on May 26, 2023, the functions of Lead Independent Director will be assigned to Mr. Jacques Aschenbroich, independent director.

### COMPOSITION OF THE COMMITTEES OF THE BOARD OF DIRECTORS AT THE END OF THE SHAREHOLDERS' MEETING ON MAY 26, 2023

On the proposal of the Governance and Ethics Committee, the Board of Directors decided at its meeting on February 7, 2023, to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 26, 2023. As of that date, the composition of the Committees will be as follow:

#### As of May 26, 2023

| Audit Committee | Governance and Ethics Committee | Compensation Committee | Strategy & CSR Committee |
|---|---|---|---|
| **5 members** | **5 members** | **4 members** | **6 members** |
| **75% independent members[a]** | **80% independent members** | **100% independent members[a]** | **80% independent members[a]** |
| Maria van der Hoeven* | Jacques Aschenbroich* | Mark Cutifani* | Patrick Pouyanné* |
| Marie-Christine Coisne-Roquette | Marie-Christine Coisne-Roquette | Jacques Aschenbroich | Jacques Aschenbroich |
| Lise Croteau** | Mark Cutifani | Anne-Marie Idrac | Marie-Christine Coisne-Roquette |
| Romain Garcia-Ivaldi[b] | Anne-Marie Idrac | Angel Pobo[b] | Anne-Marie Idrac |
| Glenn Hubbard | Jean Lemierre | | Emma de Jonge[c] |
| | | | Jean Lemierre |

(a) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).
(b) Director representing employees.
(c) Director representing employee shareholders.
* Chair of the Committee. **Financial expert.

### 4.1.1.1 PROFILES, EXPERIENCE AND EXPERTISE OF THE DIRECTORS (INFORMATION AS OF DECEMBER 31, 2022)(1)

## Patrick Pouyanné

**Chairman and Chief Executive Officer of TotalEnergies SE***

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2015
Last reappointment: Annual Shareholders' Meeting on May 28, 2021
End of current term: 2024 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 338,695
Number of TotalEnergies Actionnariat France collective investment fund units held: 12,328.6773 (as of December 31, 2022)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Main function:** Chairman and Chief Executive Officer of TotalEnergies SE*

#### Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TotalEnergies' Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Company representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Company's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Company's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Company's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director for a three-year term. The Board of Directors appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer. Following the renewal of Mr. Pouyanné's directorship at the Shareholders' Meeting on June 1, 2018 and then on May 28, 2021 for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship.

Mr. Pouyanné is thus the Chairman and Chief Executive Officer of TotalEnergies SE.

On June 1, 2022, Mr. Pouyanné was appointed Chairman of the French association, Entreprises pour l'Environnement (EpE). Mr. Pouyanné has also been the Chairman of the Alliance pour l'Education – United Way association since June 2018, having accepted this office as Chairman and Chief Executive Officer of the Corporation. In addition, he has been a member of the Board of Directors of Capgemini (since May 2017), of the Board of Directors of École Polytechnique (since September 2018), of the Institut Polytechnique of Paris (since September 2019), of the Association Française des Entreprises Privées (French association of private companies) (since 2014), of the Institut du Monde Arabe (since 2017) and of the foundation La France s'engage (since 2017).

#### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

Within the Company

- Chairman and Chief Executive Officer of TotalEnergies SE* and Chairman of the Strategy & CSR Committee

Outside the Company

- Director of Capgemini S.E.* (since May 10, 2017), member of the Strategy & CSR Committee (until May 2022), member of the Ethics & Governance Committee and, since May 2022, Chairman of the Compensation Committee

**Directorships that have expired in the previous five years**

None

**Other positions held during fiscal year 2022**

- Chairman of the l'Association Alliance pour l'Education – United Way (since June 2018)
- Chairman of the French business coalition Entreprises pour l'Environnement (EpE) (since June 1, 2022)
- Member of the Board of Directors of École Polytechnique (a public scientific, cultural and professional establishment under French law) (since September 2018)
- Member of the Board of Directors of the Institut Polytechnique de Paris (since September 2019)
- Member of the Board of Directors of AFEP (French Association of private companies) (since 2014)
- Member of the Board of Directors of the Institut du Monde Arabe (since 2017)
- Member of the Board of Directors of the La France s'engage foundation (since September 2017)

(1) Including the information referred to in Articles L. 22-10-10 and L. 225-37-4 of the French Commercial Code, and point 12.1 of Annex I to Commission Delegated Regulation EU 2019/980 of March 14, 2019, supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council on the form, content, review and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market.

* For information relating to the offices held by directors, companies marked with an asterisk are listed companies.

## Jacques Aschenbroich

**Independent director**

Member of the Governance and Ethics Committee
Member of the Compensation Committee

Born on June 3, 1954 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 28, 2021
End of current term: 2024 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,000 (as of December 31, 2022)

Business address: 100 rue de Courcelles, 75017 Paris, France

**Main function:** Chairman of the Board of Directors of Orange* since May 2022

### Biography & Professional Experience

As an engineer graduate of the Corps des Mines, Mr. Jacques Aschenbroich held several positions in the French administration and served in the Prime Minister's office in 1987 and 1988. He then pursued an industrial career in the Saint-Gobain group from 1988 to 2008. After having managed subsidiaries in Brazil and Germany, he became Managing Director of the Flat Glass division of Compagnie de Saint-Gobain and went on to become Chairman of Saint-Gobain Vitrage in 1996.

As Senior Vice-President of Compagnie de Saint-Gobain from October 2001 to December 2008, he managed the flat glass and high-performance materials sectors as from January 2007 and, as the Vice-Chairman of Saint-Gobain Corporation and General Delegate to the United States and Canada, he directed the operations of the group in the United States as from September 1, 2007. He was also a director of Esso SAF until June 2009.

Mr. Jacques Aschenbroich was appointed Director and Chief Executive Officer of Valeo in March 2009 and then Chairman and Chief Executive Officer of Valeo, positions he held from February 2016 to January 26, 2022. Following the change in the Valeo Group's governance, he remained the Chairman of the Board of Directors of Valeo from January 26, 2022 until December 31, 2022, when Mr. Jacques Aschenbroich left the Chairmanship and the Board of Directors of Valeo.

In May 2022, Jacques Aschenbroich was appointed Chairman of the Board of Directors of Orange.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Chairman of the Board of Directors of Orange* since May 2022
- Chairman of the Board of Directors of Valeo* until December 31, 2022 and Chief Executive Officer of Valeo until January 26, 2022
- Director of TotalEnergies SE* and since May 25, 2022, member of the Governance and Ethics Committee and of the Compensation Committee
- Director of BNP Paribas*, Chairman of the Corporate Governance, Ethics, Nominations and CSR Committee, and member of the Financial Statements Committee

**Directorships that have expired in the previous five years**

- Chairman of the Board of Directors of Valeo* until December 31, 2022 and Chief Executive Officer of Valeo until January 26, 2022
- Director of Veolia Environnement*, Chairman of the Comité de recherche, innovation et développement durable and member of the Comité des comptes et de l'audit until May 28, 2021
- Chairman of Valeo Finance, Valeo S.p.A. (Italy) and Valeo (UK) Limited (United Kingdom)

**Other positions held during fiscal year 2022**

- Chairman of the Board of Directors of the Ecole nationale supérieure des mines ParisTech
- Co-Chair of the Franco-Japanese Business Club
- Member of the Board of Directors of AFEP (French Association of private companies)

## Patricia Barbizet

**Director**

Member of the Audit Committee
Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on April 17, 1955 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 16, 2008
Last reappointment: Annual Shareholders' Meeting on May 29, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 14,050[1] (as of December 31, 2022)

Business address: Temaris et Associés SAS, 40 rue François 1er, 75008 Paris, France

**Main function:** Chairwoman of Temaris et Associés SAS

### Biography & Professional Experience

A graduate of École Supérieure de Commerce de Paris (ESCP-Europe) in 1976, Patricia Barbizet started her career in the Treasury division of Renault Véhicules Industriels, and then as CFO of Renault Crédit International. In 1989, she joined the group of François Pinault as CFO, and was CEO of Artémis, the Pinault family's investment company, between 1992 and 2018. She was also CEO and Chairwoman of Christie's from 2014 to 2016.

Patricia Barbizet was Vice Chairwoman of the Board of Directors of Kering and Vice Chairwoman of Christie's Plc. She has been a member of the Board of Directors of TotalEnergies SE since 2008, and was a director of Bouygues, Air France-KLM and PSA Peugeot-Citroën. She chaired the Investment Committee of the Fonds Stratégique d'Investissement (FSI) from 2008 to 2013.

### Directorships and functions held

#### Directorships held at any company during fiscal year 2022

- Chairwoman of Temaris et Associés SAS since October 2018
- Director of TotalEnergies SE*, member of the Audit Committee, member of the Governance and Ethics Committee and of the Strategy & CSR Committee
- Director of Colombus Holdings since July 2019
- Director of Pernod Ricard* since November 2018
- Director of Axa* until April 28, 2022

#### Directorships that have expired in the previous five years

- Director of Axa* until April 28, 2022
- Director of Groupe Fnac Darty* until May 2019
- Director of Artémis until July 2018
- Chief Executive Officer of Artémis until January 2018
- Deputy Chairwoman of Christie's International plc until January 2018
- Director and Vice Chairwoman of the Board of Directors of Kering S.A.* until December 2018
- General Manager (non-executive) and member of the Supervisory Board of Financière Pinault until January 2018
- Permanent representative of Artémis, member of the Board of Directors of Agefi until January 2018
- Permanent representative of Artémis, member of the Board of Directors of Sebdo le Point until January 2018
- Member of the Management Board of Société Civile du Vignoble de Château Latour until January 2018
- Director of Yves Saint Laurent until November 2018
- *Amministratore* & *Amministratore Delagato* of Palazzo Grassi until January 2018
- Member of the Supervisory Board of Ponant until January 2018
- Representative of Artémis on the Supervisory Board of Collection Pinault Paris until January 2018

#### Other positions held during fiscal year 2022

- Chairwoman of the Board of Directors of the public institution (EPIC) Cité de la Musique – Philharmonie de Paris
- Chairwoman of the Supervisory Board of Investissements d'Avenir (French governmental body)
- Chairwoman of the Haut Comité de Gouvernement d'Entreprise (HCGE)

(1) Excluding acquisitions in 2020 completed by Temaris et Associés SAS, legal entity related to Patricia Barbizet.

## Marie-Christine Coisne-Roquette

**Independent director – Lead Independent Director**

Chairwoman of the Governance and Ethics Committee
Member of the Compensation Committee
Member of the Strategy & CSR Committee

Born on November 4, 1956 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 13, 2011
Last reappointment: Annual Shareholders' Meeting on May 29, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 5,000 (as of December 31, 2022)

Business address: Sonepar, 25 rue d'Astorg, 75008 Paris, France

**Main function:** Chairwoman of Sonepar S.A.S. and of Colam Entreprendre SAS

### Biography & Professional Experience

Ms. Coisne-Roquette has a Bachelor's Degree in English. A lawyer by training, with a French Masters' in law and a Specialized Law Certificate from the New York bar, she started her career as an attorney in 1981 at the Paris and New York bars, as an associate of Cabinet Sonier & Associés in Paris. In 1984, she became a member of the Board of Directors of Colam Entreprendre, a family holding company that she joined full time in 1988. As Chairwoman of the Board of Colam Entreprendre and the Sonepar Supervisory Board, she consolidated family ownership, reorganized the group structures and strengthened its shareholding base to sustain the group's growth strategy. Chairwoman and Chief Executive Officer of Sonepar as of 2002, Marie-Christine Coisne-Roquette became Chairwoman of Sonepar S.A.S. in 2016. At the same time, she heads Colam Entreprendre as its Chairwoman and Chief Executive Officer. Formerly a member of the Young Presidents' Organization (YPO), she served on the Executive Committee of MEDEF (France's main employers' association) for 13 years and was Chairwoman of its Tax Commission from 2005 to 2013. She was a member of the Economic, Social and Environmental Council from 2013 and 2015 and is currently a director of TotalEnergies SE.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

Within the Sonepar group

- Chairwoman of Colam Entreprendre S.A.S.
- Permanent Representative of Colam Entreprendre S.A.S., Chairwoman of Sonepar S.A.S.
- Director of Sonepack SAS since mid-2020
- Chairwoman of Développement Mobilier et Industriel (S.A.S.)
- Managing Partner of Ker Coro (société civile immobilière)

Outside the Sonepar group

- Director of TotalEnergies SE*, Lead Independent Director, Chairwoman of the Governance and Ethics Committee, member of the Compensation Committee and of the Strategy & CSR Committee
- Director of EssilorLuxottica*

**Directorships that have expired in the previous five years**

- Chief Executive Office of Sonepack S.A.S. until mid-2020
- Chairwoman of CMI until June 2020
- Member of the Supervisory Board of Akuo Energy S.A.S. (until June 2020)
- Legal representative of Sonepar S.A.S., co-manager of Sonedis (*société civile*) until October 29, 2018

**Other positions held during fiscal year 2022**

- Director at FONDACT
- Director at the Fondation Recherche Alzheimer
- Member of the Board of Directors of AFEP (French association of private companies)
- Vice Chair of the Board of Directors of the Association Nationale des Sociétés par Actions (ANSA)
- Member of the Bureau and director of MEDEF International

## Jérôme Contamine

**Independent director**

Member of the Audit Committee

Born on November 23, 1957 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 10,553
Number of TotalEnergies Actionnariat France collective investment fund units held: 808.649
(as of December 31, 2022)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Main function:** Independent director

### Biography & Professional Experience

The French-born Mr. Contamine is a graduate of Ecole Polytechnique, ENSAE and ENA. After spending four years as an auditor of the French Court of Auditors (Cour des Comptes), he served in a variety of positions between 1988 and 2000 at Elf Aquitaine and later TotalEnergies. From 2000 to 2009, he was Executive Vice President of Finance at Veolia Environnement and he was a member of the Board of Directors of Valeo from 2006 to 2017. From 2009 to 2018, he was Chief Financial Officer of Sanofi. Mr. Contamine is a director, a member of the Audit and Internal Control Committee and the Chairman of the Compensation Committee of Société Générale.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director of TotalEnergies SE* and member of the Audit Committee
- Director of Société Générale*, member of the Audit and Internal Control Committee, Chairman of the Compensation Committee
- Chairman of Sigateo
- Director, Chairman of the Audit Committee, member of the Nominations and Compensation Committee of Galapagos NV*

**Directorships that have expired in the previous five years**

- Director of Valeo*

**Other positions held during fiscal year 2022**

- Member of the Financial Committee of the Fondation des Apprentis d'Auteuil

## Lise Croteau

**Independent director**

Member of the Audit Committee

Born on May 5, 1960 (Canadian)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2019
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 100
Number of TotalEnergies ADS held: 1,000 (as of December 31, 2022)

Business address: 580 Chemin de la Réserve, Mont-Tremblant, Québec, J8E 3L8, Canada

**Main function:** Independent director

### Biography & Professional Experience

Ms. Croteau began her career in 1982 as an auditor within the audit firms, today Raymond Chabot Grant Thornton, then Deloitte, and she joined Hydro-Québec in 1986 where she held positions of control, of risk management and of financial management of increasing responsibility.

From 2015 to 2018, she held the position of Executive Vice President and Chief Financial Officer of Hydro-Québec prior to retiring.

A chartered professional accountant since 1984, Ms. Croteau holds a Bachelor's degree in Business Administration and in 2008 was named a Fellow of the Order of Chartered Professional Accountants of Québec in recognition of her contribution to the profession and for her collaboration in the development of Canadian accounting standards for derivatives.

Her functions within Hydro-Québec have enabled her in particular to develop significant expertise in risk management from 2008, as she has been in charge of risk management, responsible for the company's risk portfolio drawn up as part of the annual exercise of the company's long-term strategic planning. In this context, she had in particular to identify, quantify and monitor risk trends and means of mitigation.

Mrs Croteau was also in charge of market risk management activities, and "Middle Office" credit of Hydro-Québec's market activities for energy transactions on Northeast American markets, debt management and management of the company's employee pension fund.

Ms. Croteau has been an independent director of Boralex since 2018, the Chair of the Audit Committee since 2019 and a member of the Investment and Risk Management Committee since 2021. Boralex, listed in Toronto, is a Canadian leader in renewable energies with operations in wind, solar, hydroelectricity and storage. It also has operations in France, the United States and the United Kingdom.

Since June 2019, Ms. Croteau has been a director on the Boards of Québecor inc. and Québecor Média inc. as well as a member of the Human Resources and Corporate Governance Committee and of the Audit and Management Risks Committee since May 2022, when she was also appointed director of the Board of Directors of Vidéotron and member of the Audit and Management Risks Committee. Québecor is a Canadian leader in the telecommunications, entertainment, news media and culture fields.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director of TotalEnergies SE* and member of the Audit Committee
- Director of Québecor inc.* since June 16, 2019, member of the Human Resources and Corporate Governance Committee and member of the Audit and Management Risks Committee since May 12, 2022
- Director of Québecor Média inc.* (Québecor inc.'s subsidiary) since June 16, 2019, member of the Human Resources and Corporate Governance Committee and member of the Audit and Management Risks Committee since May 12, 2022
- Director and member of the Audit and Management Risks Committee of Vidéotron (Québecor inc.'s subsidiary) since May 12, 2022
- Director of Boralex* since 2018, Chairwoman of the Audit Committee since 2019 and member of the Investment and Risk Management Committee since 2021

**Directorships that have expired in the previous five years**

- Director of TVA Group Inc.* until June 16, 2019

**Other positions held during fiscal year 2022**

None

## Mark Cutifani

**Independent director**

Chairman of the Compensation Committee

Born on May 2, 1958 (Australian)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 26, 2017
Last reappointment: Annual Shareholders' Meeting on May 29, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 2,000 (as of December 31, 2022)

Business address: 19 Oxshott Rise, Cobham, KT11 2RW, United Kingdom

**Main function:** Chief Executive of Anglo American plc.* until April 19, 2022

### Biography & Professional Experience

Mr. Cutifani is a Director and Executive Business Advisor after retiring from Anglo American plc. in June 2022. He has more than 46 years of experience in the mining industry in various parts of the world, covering a broad range of products. He was previously the Chief Executive Officer of AngloGold Ashanti Limited. Before joining AngloGold Ashanti, Mr. Cutifani was COO responsible for global nickel business at Vale. Prior to that, he held various management roles at Normandy Group, Sons of Gwalia, Western Mining Corporation, Kalgoorlie Consolidated Gold Mines and CRA (Rio Tinto).

Mr. Cutifani has a degree in Mining Engineering (with honors) from the University of Wollongong in Australia. He is a Fellow of the Royal Academy of Engineering, the Australasian Institute of Mining and Metallurgy and the Institute of Materials, Minerals and Mining in the United Kingdom.

Mr. Cutifani received an honorary doctorate from the University of Wollongong in Australia in 2013 and an honorary doctorate from Laurentian University in Canada in 2016.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director of TotalEnergies SE* and Chairman of the Compensation Committee
- Senior Independent Non-Executive Director – Laing O'Rourke (Private) since September 1, 2022

Within the Anglo American group

- Director and Chief Executive of Anglo American plc.* until April 19, 2022
- Non-executive director of Anglo American Platinum Limited until May 12, 2022
- Chairman of De Beers plc. until May 12, 2022
- Chairman of De Beers Investments plc. until May 12, 2022

**Directorships that have expired in the previous five years**

- Director and Chief Executive of Anglo American plc.* until April 19, 2022
- Non-executive director of Anglo American Platinum Limited until May 12, 2022
- Chairman of De Beers plc. until May 12, 2022
- Chairman of De Beers Investments plc. until May 12, 2022

**Other positions held during fiscal year 2022**

- Chairman of Board of Trustees – Power of Nutrition since July 2022
- Non-Executive Director – Development Partner Institute since August 2022
- Chair – International Advisory Committee for Global Foundation since July 2022
- Member of International Advisory Committee – AUSIMM since October 2022

## Romain Garcia-Ivaldi

**Director representing employees**

Member of the Audit Committee

Born on September 14, 1988 (French)
Director representing employees of TotalEnergies SE, appointed by the Central Social and Economic Works Council of the Corporation on June 9, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 178
Number of TotalEnergies Actionnariat France collective investment fund units held: 4,015.9105
Number of FCPE TotalEnergies France Capital+ collective investment fund units held: 19.129
(as of December 31, 2022)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Main function:** Employee of TotalEnergies SE*

### Biography & Professional Experience

A graduate of ENSTA Paris engineering school and IFP School, Mr. Garcia-Ivaldi began his career at TotalEnergies in 2012 as an economist on oil and gas projects in Americas region. Between 2015 and 2021, he was a reservoir engineer, serving in a variety of positions in Paris and Lagos (Nigeria). He is currently an economist of new business for TotalEnergies SE. He also obtained the "Certificat Administrateur de Sociétés" IFA-Sciences Po.

Mr. Garcia-Ivaldi was chairman of the Supervisory Board of the TotalEnergies Actionnariat France and TotalEnergies France Capital+ employee shareholding funds from November 9, 2018 to June 17, 2020.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director representing employees of TotalEnergies SE* and member of the Audit Committee

**Directorships that have expired in the previous five years**

None

**Other positions held during fiscal year 2022**

None

## Maria van der Hoeven

**Independent director**

Chairwoman of the Audit Committee

Born on September 13, 1949 (Dutch)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,800 (as of December 31, 2022)

Business address: Sadatdomein 31, 6229 HC Maastricht, The Netherlands

**Main function:** Independent director

### Biography & Professional Experience

Ms. van der Hoeven trained as a teacher, becoming a professor in economic sciences and administration then a school counselor. She subsequently headed the Adult Vocational Education Center in Maastricht for seven years, before leading the Limburg Technology Center. She was a member of the Dutch Parliament, served as Minister of Education, Culture and Science from 2002 to 2007, and was Minister of Economic Affairs of the Netherlands from 2007 to 2010. Ms. van der Hoeven was Executive Director of the International Energy Agency (IEA) from September 2011 to August 2015. During this period, she helped to increase the number of members of the Agency and emphasized the close link between climate and energy policy. In September 2015, Ms. van der Hoeven joined the Board of Trustees of Rocky Mountain Institute (USA) and in the spring of 2016, she became a member of the Supervisory Board of Innogy SE (Germany). Ms. van der Hoeven was Vice Chairwoman of the High-level Panel of the European Decarbonisation Pathways Initiative within the European Commission between 2016 and 2018. Since January 2020, she has been a member of the Supervisory Board of COVRA, a privately held Dutch company that serves as the central depository for radioactive waste in the Netherlands.

### Directorships and functions held

#### Directorships held at any company during fiscal year 2022

- Director of TotalEnergies SE* and Chairwoman of the Audit Committee
- Member of the Supervisory Board of Covra since January 2020 (Netherlands)

#### Directorships that have expired in the previous five years

- Member of the Board of Trustees of Rocky Mountain Institute (USA) until October 30, 2021
- Member of the Supervisory Board of Innogy SE* until October 4, 2019

#### Other positions held during fiscal year 2022

- Member of the EACLN, European Audit Committee Leaders Network, since August 2021
- Member of the Supervisory Board of Erasmus Entreprise (Netherlands) since June 2021
- Special Advisor on energy literacy to the Secretary General of World Energy Council (WEC) since May 2021
- Member of the Board of Leaders pour la Paix (France) since January 2019
- Member of the International Advisory Panel on Energy in Singapore since January 2019
- Senior fellow in CIEP (Clingendael International Energy Programme) (Netherlands)

## Glenn Hubbard

**Independent director**

Born on September 4, 1958 (American)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 28, 2021
End of current term: 2024 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,000 (as of December 31, 2022)

Business address: 572 Kravis Hall, 665 West 130th Street, New York, NY 10027, United States

**Main function:** Russell L. Carson Professor of Finance and Economics, Columbia University and Chairman of the Board, MetLife, Inc.

### Biography & Professional Experience

Mr. Glenn Hubbard obtained in 1983 a PhD in Economics at Harvard University. After graduation, he joined Northwestern University as Assistant Professor of Economics, where he stayed for five years. In 1988 he joined Columbia University, where he continues to teach today. Since then, he has been a visiting professor at Harvard's Kennedy School of Government and Harvard Business School as well as The University of Chicago. In 1991, Glenn Hubbard was appointed Deputy Assistant Secretary for Tax Policy at the United States Department of the Treasury. In 1993, he joined the Federal Reserve Bank of New York's Panel of Economic Advisors, a position he vacated in 2001 when he became Chairman of the United States Council of Economic Advisers (CEA). He also served as Chair of the Economic Policy Committee of the Organization for Economic Cooperation and Development (OECD) as well as a Member of the White House National Economic Council, National Security Council, and the President's Council on Science and Technology. He stepped down as Chair of the CEA in 2003, returning to Columbia University. In 2007, he also rejoined the Panel of Economic Advisors for the Federal Reserve Bank of New York, a position he maintained for 10 years. In 2004, he joined the Boards of Dex Media, KKR Financial Corporation, and Automatic Data Processing (ADP), positions he held for many years. In 2004, he was named Dean of Columbia Business School (Columbia University's graduate school of business), keeping this position until 2019. In 2007, Glenn Hubbard joined the Board of MetLife, Inc. where he continues to serve today after being named Lead Independent Director in 2017 and Chairman in 2019.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Chairman of the Board of MetLife, Inc.*
- Director of BlackRock Fixed Income Funds
- Director of TotalEnergies SE*

**Directorships that have expired in the previous five years**

- Director of Automatic Data Processing until November 2020

**Other positions held during fiscal year 2022**

- Russell L. Carson Professor of Finance and Economics, Columbia University
- Co-Chair, Committee on Capital markets Regulation
- Board Member of Resources for the Future

## Anne-Marie Idrac

**Independent director**

Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on July 27, 1951 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 11, 2012
Last reappointment: Annual Shareholders' Meeting on May 28, 2021
End of current term: 2024 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,539 (as of December 31, 2022)

Business address: 9 place Vauban 75007 Paris, France

**Main function:** Independent director

### Biography & Professional Experience

A graduate of Institut d'Études Politiques de Paris and formerly a student at École Nationale d'Administration (ENA-1974), Ms. Idrac began her career holding various positions as a senior civil servant at the French Ministry of Infrastructure (Ministère de l'Équipement) in the fields of environment, housing, urban planning and transportation. She served as Executive Director of the public institution in charge of the development of Cergy-Pontoise (Établissement public d'Aménagement de Cergy-Pontoise) from 1990 to 1993 and Director of land transport from 1993 to 1995. Ms. Idrac was France's State Secretary for Transportation from May 1995 to June 1997, elected member of Parliament for Yvelines from 1997 to 2002, regional councilor for Île-de-France from 1998 to 2002 and State Secretary for Foreign Trade from March 2008 to November 2010. She also served as Chairwoman and Chief Executive Officer of RATP from 2002 to 2006 and then as Chairwoman of SNCF from 2006 to 2008.

### Directorships and functions held

#### Directorships held at any company during fiscal year 2022

- Director of TotalEnergies SE*, member of the Governance and Ethics Committee and the Strategy & CSR Committee
- Director of Air France-KLM* and Chairwoman of the Sustainable Development and Compliance Committee
- Director of Sanef since October 2019
- Director of Saint Gobain* and Chairwoman of the Nominations and Compensation Committee until June 2022

#### Directorships that have expired in the previous five years

- Director of Saint Gobain* and Chairwoman of the Nominations and Compensation Committee until June 2022
- Director of Bouygues* until June 2021
- Chairwoman of the Supervisory Board of Toulouse-Blagnac Airport until May 2018

#### Other positions held during fiscal year 2022

- Chairwoman of the professional association France Logistique since January 2020
- Member of the Board of Directors of the Fondation Robert Schuman
- Chairwoman of the Fondation Alima since November 2020

## Emma de Jonge

**Director representing employee shareholders**

Member of the Strategy & CSR Committee

Born on March 20, 1963 (Dutch)
Director representing employee shareholders of TotalEnergies SE since the Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 184
Number of TotalEnergies Actionnariat France collective investment fund units held: 1,665.4306
(as of December 31, 2022)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Main function:** Employee of TotalEnergies*

### Biography & Professional Experience

After obtaining a double degree in information systems and management at the University of Grenoble, Emma de Jonge began her career as a project manager and pre-sales support in the Cap Gémini group in 1987. She joined Elf Aquitaine in 1990, where she held several positions as project manager, buyer and internal consultant in the Refining Distribution IT Department. In 2004, as assistant to the SAP support manager for 150 subsidiaries of Total Marketing & Services, she managed relations with the subsidiaries' managers and supplier relations.

From 2010, Emma de Jonge worked primarily as a project manager and in change management in international contexts, in the Europe Card Development Department and then in the Governance Department of Total Marketing & Services. In 2017, she continued these activities as Head of Procure to Pay and then as project manager, first within TotalEnergies Global Procurement, and then within TotalEnergies Global Services in 2022.

Furthermore, Emma de Jonge holds the IFA-Science Po Corporate Director Certificate. She is a member of the European Works Council (since 2020) and an elected member of the Supervisory Board of the TotalEnergies Actionnariat France collective investment fund (since 2020).

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director representing employee shareholders of TotalEnergies SE*, member of the Strategy and CSR Committee since May 25, 2022

**Directorships that have expired in the previous five years**

None

**Other positions held during fiscal year 2022**

- Elected member of the CSE AGSH TotalEnergies Paris (since 2018)
- Elected member of the CSEC AGSH TotalEnergies (since 2018)
- Member of the TotalEnergies European Works Council (since 2020)
- Elected member of the Supervisory Board of the TotalEnergies Actionnariat France collective investment fund (since 2020)

## Jean Lemierre

**Independent director**

Member of the Governance and Ethics Committee
Member of the Strategy & CSR Committee

Born on June 6, 1950 (French)
Director of TotalEnergies SE since the Annual Shareholders' Meeting on May 24, 2016
Last reappointment: Annual Shareholders' Meeting on May 25, 2022
End of current term: 2025 Annual Shareholders' Meeting

Number of TotalEnergies shares held: 1,042 (as of December 31, 2022)

Business address: BNP Paribas, 3 rue d'Antin 75002 Paris, France

**Main function:** Chairman of the Board of Directors of BNP Paribas*

### Biography & Professional Experience

Mr. Lemierre is a graduate of the Institut d'Études Politiques de Paris and the École Nationale d'Administration. He also has an undergraduate law degree. Mr. Lemierre held various positions at the French tax authority, including as Head of the Fiscal Legislation Department and Director-General of Taxes. He was then appointed as Cabinet Director at the French Ministry of Economy and Finance before becoming Director of the French Treasury in October 1995. Between 2000 and 2008, he was President of the European Bank for Reconstruction and Development (EBRD). He became an advisor to the Chairman of BNP Paribas in 2008 and has been Chairman of the Board of Directors of BNP Paribas since December 1, 2014. During his career, Mr. Lemierre has also been a member of the European Monetary Committee (1995-1998), Chairman of the European Union Economic and Financial Committee (1999-2000) and Chairman of the Paris Club (1999-2000). He later became a member of the International Advisory Council of China Investment Corporation (CIC) and the International Advisory Council of China Development Bank (CDB). He is currently Chairman of the Centre d'Études Prospectives et d'Informations Internationales (CEPII) and a member of the Institute of International Finance (IIF).

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

Within the BNP Paribas group

- Chairman of the Board of Directors of BNP Paribas*
- Director of TEB Holding AS

Outside the BNP Paribas group

- Director of TotalEnergies SE*, member of the Governance and Ethics Committee and of the Strategy & CSR Committee

**Directorships that have expired in the previous five years**

None

**Other positions held during fiscal year 2022**

- Member of the Board of Directors of AFEP (French association of private companies)
- Chairman of Centre d'Études Prospectives et d'Informations Internationales (CEPII)
- Member of the Institute of International Finance (IIF)
- Member of the International Advisory Council of China Development Bank* (CDB)
- Member of the International Advisory Council of China Investment Corporation (CIC)
- Member of the International Advisory Panel (IAP) of the Monetary Authority of Singapore (MAS)
- Vice-Chairman of Paris EUROPLACE since 2014

## Angel Pobo

**Director representing employees**

Member of the Compensation Committee

Born on August 14, 1969 (French)
Director representing employees of TotalEnergies SE, appointed by the SE Committee, known as the TotalEnergies European Works Council, on October 14, 2020
End of current term: Annual Shareholders' Meeting on May 26, 2023

Number of TotalEnergies shares held: 539
Number of TotalEnergies Actionnariat France collective investment fund units held: 1,665.0208 (as of December 31, 2022)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Main function:** Employee of TotalEnergies SE*

### Biography & Professional Experience

Mr. Pobo joined TotalEnergies in 1989 as part of Argedis, the subsidiary responsible for service station management and operations in France, where he held a variety of positions before becoming site director in 1998. In 2013, he became a member of the European Works Council. He was the central union representative for the Marketing & Services Unit of Economic and Employee Interest (UES) from 2014 to 2017, and then for the Upstream/Global Services/Holding Company UES beginning in 2017. He is also the union representative on the Economic and Employee Interest Committee and the Central Economic and Employee Interest Committee. On October 14, 2020, he was appointed by the SE Committee, known as the European Works Committee, to sit on the Board of Directors of TotalEnergies SE as a director representing employees and accordingly resigned from his union responsibilities.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022**

- Director representing employees of TotalEnergies SE* and, since May 25, 2022, member of the Compensation Committee

**Directorships that have expired in the previous five years**

None

**Other positions held during fiscal year 2022**

- Mayor of Aubais (France)

## DIRECTORSHIPS OF TotalEnergies SE THAT EXPIRED IN 2022

## Valérie Della Puppa Tibi

**Director representing employee shareholders until May 25, 2022**

Member of the Compensation Committee until May 25, 2022

Born on August 22, 1968 (French)
Director reprensenting employee shareholders of TotalEnergies SE since the Annual Shareholders' Meeting on May 29, 2019 until the Annual Shareholders' Meeting on May 25, 2022

**Main function:** Employee of TotalEnergies SE*

### Biography & Professional Experience

A graduate of the Institut Universitaire de Technologie de Sceaux (Paris XI) in International Trade, Ms. Della Puppa Tibi joined the Company in 1989. She held several positions in international logistics at the Marine Lubricants unit of the Lubrifiants subsidiary. Ms. Della Puppa Tibi also studied at the Conservatoire des Arts et Métiers (International Trade curriculum - Marketing, International Trade, Commodity Markets courses) as well as studying languages (English, Spanish and Italian). In 2002, she joined the Réseau France as a contract pilot for the maintenance of service stations. In 2011, Ms. Della Puppa Tibi joined the Procurement Division of the Refining and Marketing as e-procurement manager, then became Lead Buyer upon the creation of TotalEnergies Global Procurement in 2017.

Ms. Della Puppa Tibi has also been member of the TotalEnergies European Works Council (SE Committee), and a full elected member of the Supervisory Board of the TotalEnergies Actionnariat France and an alternate elected member of the Supervisory Board of the TotalEnergies France Capital+ collective investment funds.

### Directorships and functions held

**Directorships held at any company during fiscal year 2022[1]**

- Director of TotalEnergies SE*, member of the Compensation Committee until May 25, 2022

**Directorships that have expired in the previous five years**

- Director of TotalEnergies SE*, member of the Compensation Committee until May 25, 2022

**Other positions held during fiscal year 2022**

- Member of the TotalEnergies European Works Council (SE Committee)
- Full elected member of the Supervisory Board of the TotalEnergies Actionnariat France and alternate elected member of the Supervisory Board of the TotalEnergies France Capital+ collective investment funds
- Elected member of the UES Amont – Global Services – Holding, Paris Social and Economic Works Council

(1) Information as of May 25, 2022.

### 4.1.1.2 ABSENCE OF CONFLICTS OF INTEREST OR CONVICTIONS

The Board of Directors' Rules of Procedure stipulate the specific rules for preventing conflicts of interest applicable to directors in the following terms (refer to point 4.1.2.1 of this chapter for the full version of the Rules of Procedure):

**"2.5. Duty of loyalty**

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Corporation or any subsidiary of the Company, and they must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Corporation, or any subsidiary of the Company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Corporation or any subsidiary of the Company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Corporation, or from companies related to the Corporation, directly or indirectly, any advantages liable to be considered as being of a nature that may compromise their independence."

**"7.2 Duties of the Lead Independent Director**

5. Prevention of conflicts of interest

Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result and reports to the Board of Directors on these activities.

Pursuant to the obligation to declare conflicts of interest set out in article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director."

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest.

The Lead Independent Director was thus consulted in September 2022 by a director, before he accepted a mandate within an advisory body of an investment bank. As this is an advisory role with no commercial dimension and relating to cross-functional subjects, the Lead Independent Director has concluded that there is no conflict of interest. More generally, no situation relating to a project to take up a mandate or an external function by a director has led the Lead Independent Director to refer the matter to the Governance and Ethics Committee.

On the basis of the work carried out, the Board of Directors noted the absence of potential conflicts of interest between the directors' duties with respect to TotalEnergies and their private interests.

To the Corporation's knowledge, there is no family relationship among the members of the Board of Directors of TotalEnergies SE; there is no arrangement or agreement with the major shareholders, customers or suppliers under which a director was selected; and there is no service agreement that binds a director to TotalEnergies SE or to any of its subsidiaries and provides for special benefits under the terms thereof.

The current directors of TotalEnergies have informed the Corporation that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, nor have they been prohibited from managing a company or disqualified as stipulated in item 12.1 of Annex I of Commission Delegated Regulation (EU) 2019/980 of March 14, 2019, over the last five years.

### 4.1.1.3 PLURALITY OF DIRECTORSHIPS HELD BY DIRECTORS

The number of directorships held by directors in listed companies outside their group, including foreign companies, was assessed as of December 31, 2022, in accordance with the recommendations of the AFEP-MEDEF Code (point 20), which states that "*an executive officer should not hold more than two other directorships in listed corporations, including foreign corporations, outside of his or her group. [This] limit [...] does not apply to directorships held by an executive officer in subsidiaries and holdings, held alone or together with others, of companies whose main activity is to acquire and manage such holdings. [...] A director may not hold more than four other directorships in listed corporations, including foreign corporations, outside of the group.*"

### SUMMARY OF OTHER DIRECTORSHIPS HELD BY MEMBERS OF THE BOARD OF DIRECTORS

| As of December 31, 2022 | Number of directorships held at listed companies[(a)] | Compliance with the criteria of the AFEP-MEDEF Code |
|---|---|---|
| Patrick Pouyanné | 1 | ✓ |
| Jacques Aschenbroich | 2 | ✓ |
| Patricia Barbizet | 1 | ✓ |
| Marie-Christine Coisne-Roquette | 1 | ✓ |
| Jérôme Contamine | 2 | ✓ |
| Lise Croteau | 2 | ✓ |
| Mark Cutifani | 0 | ✓ |
| Romain Garcia-Ivaldi[(b)] | 0 | ✓ |
| Maria van der Hoeven | 0 | ✓ |
| Glenn Hubbard | 1 | ✓ |
| Anne-Marie Idrac | 1 | ✓ |
| Emma de Jonge[(c)] | 0 | ✓ |
| Jean Lemierre | 1 | ✓ |
| Angel Pobo[(b)] | 0 | ✓ |

(a) In accordance with the criteria of the AFEP-MEDEF Code.
(b) Director representing employees.
(c) Director representing employee shareholders.

## 4.1.1.4 DIRECTORS' INDEPENDENCE

At its meeting on March 15, 2023, the Board of Directors, on the proposal of the Governance and Ethics Committee, reviewed the independence of the Corporation's directors as of December 31, 2022. At that Committee's proposal, the Board considered that, pursuant to the AFEP-MEDEF Code to which the Corporation refers, a director is independent when "*he or she has no relationship of any kind whatsoever with the corporation, its group or its management that may interfere with the exercise of his or her freedom of judgment*".

For each director, this assessment was based on the independence criteria set forth in points 10.5 to 10.7 of the AFEP-MEDEF Code, revised in December 2022, and as described below.

**Criterion 1: Employee corporate officer within the previous five years**

*"Not to be or not to have been within the previous five years:*

- *an employee or executive officer of the company;*
- *an employee, executive officer or director of a company consolidated within the corporation;*
- *an employee, executive officer or director of the company's parent company or a company consolidated within this parent company."*

**Criterion 2: Cross-directorships**

*"Not to be an executive officer of a company in which the corporation holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive officer of the corporation (currently in office or having held such office within the last five years) holds a directorship."*

**Criterion 3: Significant business relationships**

*"Not to be a customer, supplier, commercial banker, investment banker or consultant:*

- *that is significant to the corporation or its group;*
- *or for which the corporation or its group represents a significant portion of its activity.*

*The evaluation of the significance or otherwise of the relationship with the company or its group must be debated by the Board, and the quantitative and qualitative criteria that led to this evaluation (continuity, economic dependence, exclusivity, etc.) must be explicitly stated in the annual report."*

**Criterion 4: Family ties**

*"Not to be related by close family ties to a company officer."*

**Criterion 5: Auditor**

*"Not to have been an auditor of the corporation within the previous five years."*

**Criterion 6: Period of office exceeding 12 years**

*"Not to have been a director of the corporation for more than twelve years. Loss of the status of independent director occurs on the date of this 12th anniversary."*

**Criterion 7: Status of non-executive officer**

*"A non-executive officer cannot be considered independent if he or she receives variable compensation in cash or in the form of securities or any compensation linked to the performance of the corporation or group."*

**Criterion 8: Status of the major shareholder**

*"Directors representing major shareholders of the corporation or its parent company may be considered independent, provided these shareholders do not take part in the control of the corporation. Nevertheless, beyond a 10% threshold in capital or voting rights, the Board, upon a report from the nominations committee, should systematically review the qualification of a director as independent in the light of the make-up of the corporation's capital and the existence of a potential conflict of interest."*

The Board confirmed, regarding the independence as of December 31, 2022, of Ms. Coisne-Roquette, Mr. Aschenbroich, Mr. Contamine, Ms. Croteau, Mr. Cutifani, Ms. van der Hoeven, Mr. Hubbard, Ms. Idrac as well as Mr. Lemierre that the independence analyzes previously carried out remained relevant.

In particular, the following was noted as of the date of December 31, 2022.

- The level of business relations between the Company's companies and those of the Sonepar group, of which **Ms. Coisne-Roquette** is Chairwoman, does not represent a significant portion of the Sonepar group's overall activity. The amount of the Company's purchases from Sonepar in 2022 (*i.e.*, $18,000) represents less than 0.0001% of the Company's purchases made in 2022 (*i.e.*, approximately $26.6 billion[(1)]). The amount of purchases made by Sonepar from the Company's companies in 2022 (*i.e.*, $4.93 million) represents less than 0.02% of the total amount of purchases made by Sonepar in 2022 (*i.e.*, approximately $28.6 billion). It was noted that there is no economic dependency or exclusive business relationship between the two groups.

  It was thus concluded that Ms. Coisne-Roquette could be deemed to be an independent director.
- The level of business relations between the companies of the Company and those of the Orange group, of which **Mr. Aschenbroich** is Chairman of the Board of Directors, is not significant for TotalEnergies or for Orange. The amount of purchases made by the Company from Orange in 2022 (*i.e.*, $32.5 million) represents less than 0.12% of the purchases made by the Company in 2022 (*i.e.*, approximately $26.6 billion[(2)]). The amount of purchases made by Orange from the Company's companies in 2022 (*i.e.*, $35.4 million) represents 0.17% of the total amount of purchases made by Orange in 2022. It was established that there is no economic dependency or exclusive business relations between the two groups.
- The level of business relations between the Company's companies and those of the BNP Paribas group, of which **Mr. Lemierre** is Chairman of the Board of Directors, and **Mr. Aschenbroich** is a director and member of the Audit Committee, is not significant for TotalEnergies and BNP Paribas. It represents an insignificant portion of BNP Paribas' overall activity (less than 0.2% of the bank's net banking income[(3)]) and an insignificant portion of the total amount of external financing for the Company's activities (less than 5%). It was noted the absence of economic dependence and exclusivity in the business relations between the two groups.

  It was thus concluded that Mr. Lemierre and Mr. Aschenbroich could be deemed to be independent directors.
- The level of business relations between the Company's companies and those of the Société Générale group, of which **Mr. Contamine** is a director, a member of the Audit and Internal Control Committee and the Chairman of the Compensation Committee, is not significant for TotalEnergies or Société Générale. It represents an insignificant share of Société Générale's overall activity (less than 0.3% of the bank's net banking income[(4)]) and an insignificant share of the total amount of external financing of the Company's activities (less than 5%). It was noted the absence of economic dependence and exclusivity in the business relations between the two groups.

  It was thus concluded that Mr. Contamine could be deemed to be an independent director.
- The level of business relations between the Company's companies and those of the MetLife Inc. group, of which **Mr. Hubbard** is Chairman of the Board of Directors, is not significant for TotalEnergies or MetLife Inc. The amount of insurance premiums paid by the Company's companies to the MetLife Inc. group in 2022 was not significant and represents a non significant portion of the revenues generated by this group in 2022. It was noticed that there is no significant business relationship, economic dependency or exclusive business relationships between the two groups.

  It was thus concluded that Mr. Hubbard could be deemed to be an independent director.

Ms. Barbizet, who was appointed director by the Annual Shareholders' Meeting held on May 16, 2008, cannot be considered an independent director pursuant to Article 10.5.6 of the AFEP-MEDEF Code.

The percentage of independent directors on the Board based on its composition as of December 31, 2022, was 82%[(5)]. The rate of independence within the Board of Directors is higher than that recommended by the AFEP-MEDEF Code, which specifies that at least half of the members of the Board in widely-held companies with no controlling shareholders should be independent.

(1) Purchases of goods and services (excluding petroleum products and chartering for Trading-Shipping activities).
(2) Purchases of goods and services (excluding petroleum products and chartering for Trading-Shipping activities).
(3) 2022 net banking income.
(4) 2022 net banking income.
(5) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

## SUMMARY OF THE INDEPENDENCE OF THE MEMBERS OF THE BOARD OF DIRECTORS

**Appendix 3 of the AFEP-MEDEF Code – Independence of directors**

**As of December 31, 2022**

| Criteria[a] | Patrick Pouyanné | Jacques Aschenbroich | Patricia Barbizet | Marie-Christine Coisne-Roquette | Jérôme Contamine | Lise Croteau | Mark Cutifani | Romain Garcia-Ivaldi[b] | Maria van der Hoeven | Glenn Hubbard | Anne-Marie Idrac | Emma de Jonge[c] | Jean Lemierre | Angel Pobo[b] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Criterion 1:** Employee corporate officer within the past 5 years | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 2:** Cross-directorships | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 3:** Significant business relationships | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 4:** Family ties | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 5:** Auditor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 6:** Period of office exceeding 12 years | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 7:** Status of non-executive officer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | n/a |
| **Criterion 8:** Status of the major shareholder | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | n/a | ✓ | ✓ | ✓ | n/a | ✓ | ✓ |
| **Compliance with the independence criteria of the AFEP-MEDEF Code** | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | n/a[d] | ✓ | ✓ | ✓ | n/a[d] | ✓ | n/a[d] |

(a) In this table, ✓ signifies that a criterion for independence is satisfied and ✗ signifies that a criterion for independence is not satisfied.
(b) Director representing employees.
(c) Director representing employee shareholders.
(d) Excluding the director representing employee shareholders and the directors representing employees, in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

## 4.1.1.5 DIVERSITY POLICY OF THE BOARD OF DIRECTORS

The Board of Directors places a great deal of importance on its composition and the composition of its Committees. In particular, it draws on the work of the Governance and Ethics Committee, which reviews annually and proposes, as circumstances may require, desirable changes to the composition of the Board of Directors and Committees based on TotalEnergies' strategy.

The Governance and Ethics Committee conducts its work within the framework of a formal procedure so as to ensure that the directors' areas of expertise are complementary and their backgrounds are diverse, to maintain an overall proportion of independent members that is appropriate to the TotalEnergies' governance structure and shareholder base, to allow for a balanced representation of women and men on the Board, and to promote an appropriate representation of directors of different nationalities. These principles underpin the selection process for directors.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve better gender balance and an openness to more international profiles. Based on its composition as of March 15, 2023, the 14 members of the Board of Directors include 8 male directors and 6 female directors, with 5 nationalities represented.

In accordance with Articles L. 225-27-1, L. 225-23 and L. 22-10-5 of the French Commercial Code, the directors representing employees and the director representing employee shareholders are not taken into account for the application of the provisions relating to the gender balance of the Board. Therefore, the proportion of women on the Board was 45.5% as of December 31, 2022 (5 women and 6 men out of 11 directors). The threshold of 40% of directors of each gender required by Articles L. 225-18-1 and L. 22-10-3 of the French Commercial Code was reached on December 31, 2022.

## COMPETENCE OF THE DIRECTORS

| | Patrick Pouyanné | Jacques Aschenbroich | Patricia Barbizet | Marie-Christine Coisne-Roquette | Jérôme Contamine | Lise Croteau | Mark Cutifani | Romain Garcia-Ivaldi | Glenn Hubbard | Maria van der Hoeven | Anne-Marie Idrac | Emma de Jonge | Jean Lemierre | Angel Pobo | Total | Total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Corporate management | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | ✓ | | 9 | 64% |
| International | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | 11 | 79% |
| Finance, accounting, economics | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | | 9 | 64% |
| Risk management | | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | ✓ | | 6 | 43% |
| Governance | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | 12 | 86% |
| Climate - sustainable development | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | 9 | 64% |
| Industry | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | 8 | 57% |
| Energy | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | 8 | 57% |
| Public affairs, geopolitics | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | 8 | 57% |

## FOCUS ON THE COMPETENCE OF DIRECTORS IN CLIMATE MATTERS

### Patrick Pouyanné

Patrick Pouyanné has been involved in climate issues since the 1990s when he was in the French administration. Thus, he followed the preparation of the COP1 in Berlin in 1995 when he was technical advisor in charge of environmental issues in the French Prime Minister's office.

Following his appointment at the head of the Company at the end of 2014, Patrick Pouyanné is embarking on a major transformation of TotalEnergies. His roadmap is to make progress in the energy transition, while creating value for the Company's shareholders, with a twofold challenge for TotalEnergies: supply more energy with fewer emissions. He has set TotalEnergies a new ambition in terms of sustainable development and of energy transition to carbon neutrality. He proposes that the Board of Directors submit it to the 2021 Shareholders' Meeting for opinion. As Chairman of the Board of Directors and Chairman of the Strategy & CSR Committee, Patrick Pouyanné has taken the initiative to organize strategic seminars gathering the directors on climate-related issues, with contributions from leaders and experts, like in October 2020, when Mrs. Christina Figueres spoke at a seminar on "Climate issues and the impact on energy demand: consequences for the Company's strategy". In October 2021, Mr. Fatih Birol, Executive Director of the International Energy Agency, spoke on energy and climate issues. In October 2022, Mr. Larry Fink, Chairman & CEO of BlackRock, spoke at the strategic seminar during which were discussed various themes: energy markets-geopolitics; new energies and mobility by 2030 (road, marine transport, aviation); integrated electricity business model.

Patrick Pouyanné also brings his strategic vision on the major global issues of sustainable development to numerous international forums such as the World Economic Forum or the Global Compact of the United Nations.

### Jacques Aschenbroich

The automotive industry, and mobility in general, are particularly concerned by the challenge of decarbonization, which requires massive investments in technologies and products. At the head of Valeo since 2009 until 2022, Jacques Aschenbroich has implemented a strategic plan aimed at ensuring the group's growth through the development of technologies to reduce $CO_2$ emissions. As early as 2010, he put the reduction of $CO_2$ at the center of the strategy. In 2015, Valeo signed the Climate Manifesto, through which major companies affirm their driving role and leadership in favor of a more sustainable world. In 2021, Valeo presented its commitment to carbon neutrality by 2050 (with an intermediary target to reduce by 45% the carbon footprint by 2030) and joined the "Business Ambition for 1.5 °C" campaign, bringing together companies committed to carbon neutrality by 2050 using the SBTi (Science-Based Targets initiative) framework.

Jacques Aschenbroich brings to the Board of Directors of TotalEnergies his experience as the head of an industrial, international and technological group that is exposed to climate issues.

### Patricia Barbizet

Since 2009, Patricia Barbizet actively has contributed to the deliberations of the TotalEnergies Board of Directors and the committees, of which she is a member, on the various major issues facing the Company, and in particular climate change. In her previous role as Lead Independent Director on the Board of Directors of TotalEnergies, which she held from 2015 to 2020, Patricia Barbizet participated in numerous roadshows and discussions with shareholders and investors, where climate change issues were central to the discussions.

Her skills and experience as an executive led her to reinforce her conviction in terms of CSR, and the creation of value by the company in the long term, by taking into consideration the social and environmental challenges of its activities, particularly in terms of the climate. She has chaired the Haut Comité de Gouvernance d'Entreprise (HCGE) of Paris place since November 2018.

As a Lead Independent Director of Pernod-Ricard since 2018, Patricia Barbizet contributes to the development of the strategy of this company by integrating climate issues and transitional measures that facilitate decarbonization.

### Marie-Christine Coisne-Roquette

As Chairwoman of Sonepar and its animating holding, Marie-Christine Coisne-Roquette is driving the strategy of the Sonepar group, the world leader in the distribution of electrical equipment, solutions and related services to professionals.

She engaged Sonepar in a global Sustainable Development approach by adhering to the United Nations Global Compact and Science Based Targets and by joining the Medef's "Ambition 4 Climate" initiative. Sonepar implements a sustainable development approach in close partnership with its stakeholders and has launched the "Energy Transition Academy", an online training program for its 45,000 employees and customers to help them reduce their emissions and become actors of change. The energy transition is at the heart of the family-owned group's activity, both through the adoption of a trajectory to reduce its carbon footprint and through the promotion of a "green offer" that provides its customers with clean energy solutions and the development of circular, renewable and eco-efficient products and services.

As a Lead Independent Director on the Board of Directors of TotalEnergies, Marie-Christine Coisne-Roquette participates in numerous discussions and roadshows with shareholders and investors on climate change and energy transition issues.

#### Jérôme Contamine

Jérôme Contamine is a director, a member of the Audit and Internal Control Committee and Chairman of the Compensation Committee of Société Générale. His financial profile and his expertise in sustainable finance enabled him to be associated with the discussions that led Société Générale to join the UNEP-FI Net-Zero Banking Alliance as a founding member in 2021, and to commit to aligning portfolios with roadmaps aiming at global carbon neutrality by 2050. Société Générale is also committed to supporting the energy transition through a dedicated range of sustainable financing solutions and support for the development of renewable energies and future solutions.

As Executive Managing Director of Veolia from 2006 to 2009, Jérôme Contamine actively participated in the group's actions to contribute to better energy management for its customers and to reduce their GHG emissions.

#### Lise Croteau

After serving as Executive Vice President and Chief Financial Officer of Hydro-Québec, one of the world's largest producers of hydroelectricity, Ms. Lise Croteau now uses her skills and knowledge of renewables and of the management of risks related to climate change in the service of the companies in which she sits as an independent director. Since 2018, she has been a director of Boralex, the Canadian leader in renewable energy, and since June 2019, a director of Québecor inc.

#### Mark Cutifani

As the Chief Executive of the mining company Anglo American Plc. until April 2022, Mark Cutifani has driven a transformational strategy for the group in a sector particularly challenged by climate issues. As head of the company for the past 9 years, Mark Cutifani has been instrumental in advancing climate and environmental transition plans, including refocusing the company's business and separating it from its thermal coal assets.

#### Romain Garcia-Ivaldi

A graduate of ENSTA Paris and IFP School, and currently an economist for new exploration and production projects at TotalEnergies, Romain Garcia-Ivaldi contributes as a director representing employees to the Board of Directors' discussions on the challenges of the transformation of the industry and energy efficiency as well as to issues related to non-financial reporting within the Audit Committee. Romain Garcia-Ivaldi has taken part in numerous training sessions offered by the Company on the challenges of the energy transition.

He also holds a certificate for company directors from IFA-Sciences Po.

#### Maria van der Hoeven

Maria van der Hoeven led the International Energy Agency (IEA) from 2011 to 2015 during a period of great change in the global energy economy, with a particular focus on the consideration of climate change in energy policy. One of her main priorities has been the implementation of a new strategy to integrate the main emerging players in the energy sector of the 21st century. Another of her priorities was to extend energy services to the one billion people in the world who had no access to them. In recognition of the IEA's efforts to address the crisis of energy poverty, Maria van der Hoeven served on the advisory board of the UN Sustainable Energy for All initiative. She was named a Senior Fellow of the Clingendael International Energy Program in 2015. Her personal skills led to her appointment as Vice-Chair of the European Decarbonisation Pathways Initiative High-Level Experts Group of the European Commission, whose final report was published in November 2018. Maria van der Hoeven was also appointed as a member of the Global Commission on Economics and Climate and the Global Commission on the Geopolitics of Energy Transformation, an independent initiative launched at the IRENA Assembly in January 2018. Previously, Maria van der Hoeven served as the Minister of Economic Affairs of the Netherlands from 2007 to 2010, during which time she influenced energy policy on the national, regional and global levels. Before becoming Minister of Economic Affairs, Maria van der Hoeven was Minister of Education, Culture and Science from 2002 to 2007. She was a member of the Board of Directors of Rocky Mountain Institute, an organization recognized in the field of the energy transition.

#### Glenn Hubbard

Glenn Hubbard is Professor of Finance and Economics and Dean of the Columbia Business School at Columbia University, holding the Russell L. Carson Chair in Finance and Economics. He has published numerous scientific articles on economics and finance. His work covers a variety of areas, including energy economics and taxation, and in particular the issue of $CO_2$ pricing, as well as the role of companies in climate change mitigation and how they address their exposure to climate risk. Glenn Hubbard is co-chair of the American committee on capital markets regulation and was the co-chair of the Study Group on Corporate Boards.

Glenn Hubbard is also a member of the Board of Directors of Resources for the Future, a non-profit organization dedicated to independent economic research in the areas of the environment, natural resources and energy. Glenn Hubbard is also a director of BlackRock Fixed Income Funds and the Chairman of MetLife, a US-based energy transition insurer that has set environmental goals for 2030 to reduce the environmental impact of its global operations and supply chain. MetLife is a founding member of the Climate Leadership Council, supporting carbon pricing.

#### Anne-Marie Idrac

Former Secretary of State for Transport, Secretary of State for Trade to the Minister of the Economy, Industry and Employment, Member of Parliament, President of the RATP and then of the SNCF, Anne-Marie Idrac is now an independent director and consultant.

She has been working on companies' environmental and sustainability issues for many years. She took over the chairmanship of the CSR Club of the IFA (French Institute of Directors) in 2013, when it was created, with the objective of promoting the integration of social and environmental responsibility and sustainability of corporate projects into strategic thinking. This work led to the publication in 2017, under the aegis of the IFA, of a report on the theme "CSR & sustainability of corporate projects, strategic missions of Boards".

Anne-Marie Idrac's competence in the field of transport and logistics led her to join the Air France-KLM Board of Directors in 2017 and to take over the chairmanship of its Sustainable Development and Compliance Committee. She then took part in discussions on decarbonizing the air transport sector, which was the first sector to organize itself at the global level by defining $CO_2$ emission-reduction targets. Air France-KLM supports the objectives of the International Air Transport Association (IATA). In 2018, she was appointed as the senior official for the French strategy for the development of self-driving vehicles.

She was also a director of Saint-Gobain, which has published a roadmap for its commitment to achieve zero net carbon emissions by 2050, including intermediate emission-reduction targets for 2030. She was until 2020 a director and Chairperson of the Bouygues Sustainable Development Committee, when the group engaged its decarbonization process by focusing on innovative low-carbon solutions for its customers. She has chaired France Logistique since 2020 and is, in this capacity, very involved in the energy transition of road freight transport, participating in public/private, national and European work in this field.

#### Emma de Jonge

Emma de Jonge joined the Company in 1990. In 2020, she is an elected member of the Supervisory Board of the TotalEnergies Actionnariat France and is appointed as a director representing employees at the Shareholders' Meeting held on May 25, 2022. Emma de Jonge is a member of the TotalEnergies European Works Council (Committee of the European Company), social negotiation body within which the social issues of the Company's transformation and changes in the Energy sector are dealt with.

She takes advantages of her knowledge of the Company and her experience in the Information Systems, Procurement and Project Management to contribute to the work of the Board's as part of its transformation strategy.

Emma de Jonge participated in numerous training courses offered within the Company on the challenges of energy transition and also holds a certificate for company directors from IFA-Sciences Po.

#### Jean Lemierre

Jean Lemierre is the Chairman of BNP Paribas. As early as 2015, BNP Paribas committed to accelerate the energy transition by aligning its financing and investment activities with the conclusions of the Paris Agreement. In 2021, the group took another important step in the fight against global warming and the energy transition towards a more planet-friendly economy, by joining the Net-Zero Banking Alliance. This initiative brings together banks wishing to contribute to the financing of a "net zero" economy by 2050, in particular through strong commitments to align the greenhouse gas emissions generated by their lending and investment activities with a target of global carbon neutrality by 2050.

In addition, Jean Lemierre has been the Vice-Chairman of the Paris Europlace Association since 2014, whose priorities include the promotion of sustainable and responsible finance. In this context, Paris Europlace's objective is to perpetuate and raise awareness of the Paris financial center's action in environmental and sustainable finance and to develop initiatives on the European and international levels in these various fields. As a result, Paris Europlace launched a new initiative "Paris Green & Sustainable Finance" in May 2016, which became "Finance for Tomorrow" in June 2017. This initiative aims to promote sustainable finance in France and internationally, by helping to redirect financial flows ("Shift the Trillions") towards a low-carbon and inclusive economy, in line with the Paris Agreement.

With his experience and competence in sustainable finance, Jean Lemierre contributes to the reflections of the Board of Directors and the Strategy & CSR Committee, of which he is a member, on these subjects.

#### Angel Pobo

Angel Pobo joined the Company in 1989. In October 2020, he was appointed by the SE Works Council to sit on the Company's Board of Directors as the director representing employees, and became a member of the Strategy & CSR Committee in 2021. He uses his knowledge of the Company to bring a social dimension to the Board of Directors and the Strategy & CSR Committee, particularly at a time when the Company is taking a major turn in its strategy and initiating an in-depth transformation. Angel Pobo has taken part in numerous training sessions offered by the Company on the challenges of the energy transition.

### 4.1.1.6 TRAINING OF DIRECTORS AND KNOWLEDGE OF THE COMPANY

**Training of Directors**

Directors may ask to receive training in the specificities of the Company, its businesses and its business sector, as well as any training that may help them perform their duties as directors. At her request, the Lead Independent Director received specific training from the IFA on April 7 and 9, 2020, in relation to her duties as Lead Independent Director as of May 29, 2020.

A continuing training program relating to the climate for directors has been approved in 2021. It includes in particular various modules on the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and issues of global warming.

In 2022, as part of this training program, directors participated in the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences).

The directors representing employees receive in-house training time at the Corporation and/or economics training offered by an outside body chosen by the director, after the Secretary of the Board has accepted the body and the training program. This training time, which was initially set at 20 hours per year, was increased to 60 hours per year by decision of the Board of Directors at its meeting on July 26, 2017, a decision the Board confirmed at its meeting on July 29, 2020, pursuant to Article L. 225-30-2 of the French Commercial Code.

In addition, the director representing employee shareholders may, at his or her request, be given training time set at 40 hours per year. Training may be undertaken within the Corporation or the Company, and/or provided by an external body chosen by the director, once the body and program have been accepted by the Secretary of the Board, in line with the conditions set out in the regulations.

Pursuant to Article R. 225-34-3 of the French Commercial Code, and upon a proposal made by the Governance and Ethics Committee, the Board of Directors decided that the training should enable the directors representing employees and the directors representing employee shareholders to acquire and refine the knowledge and techniques needed for the performance of their duties, and that the content of the training should principally address the role and operations of the Board of Directors, the rights and obligations of directors and their liability, and the organization and business activities of the Corporation and more generally the Company. It includes a climate component in accordance with what the Board decided to propose to all of its members at its meeting held on October 27, 2021. The training may be provided at an outside training facility or within the Corporation itself. The Secretary of the Board, with the consent of the Chairman of the Board of Directors, is responsible for the procedures by which the training program determined by the Board of Directors is implemented.

**Site visits and knowledge of the Company**

Directors may participate in visits of the sites of the Company. These site visits by the directors are opportunities to meet with the Company's employees, partners and local leading figures in the energy sector.

Site visits by groups of directors are planned for the first semester of 2023 in France, Qatar and Congo.

In 2022, the Audit Committee members visited the trading offices of two of the Company's entities in Geneva. In 2021, the directors visited the Digital Factory on the occasion of a Board of Directors' meeting held there. In 2019, four directors had the opportunity to visit the CSTJF engineering and research center in Pau, France, and two directors visited the site in Saclay, France, where the Company's Research & Development division is located. In 2018, three directors visited the Umm Shaif offshore field in Abu Dhabi, and two other directors visited the deepwater operational center in Lagos, the FPSO of the AKPO offshore field and the LNG plant on Bonny Island, Nigeria.

The directors also have regular contact with Company management, either with members of the Executive Committee at Board meetings or operational managers during visits to the Company's sites. These interactions help the directors better understand TotalEnergies' activities in a practical way.

As it was the case in 2021 and in the previous editions, a director met with the Company's female employees at the TWICE (TotalEnergies Women's Initiative for Communication and Exchange) event (refer to point 5.6.3.1 of chapter 5) in March 2022, a global event at which she spoke about her career.

## 4.1.2 Functioning of the Board of Directors

| 9 | 98.4% | 1 |
|---|---|---|
| meetings of the Board of Directors in 2022 | Directors' average attendance rate at Board meetings in 2022 | executive session chaired by the Lead Independent Director in 2022 |

### 4.1.2.1 WORKING PROCEDURES OF THE BOARD OF DIRECTORS

The working procedures of the Board of Directors are set out in its Rules of Procedure, which specify the mission of the Board of Directors and the rules related to the organization of its work. The Board's Rules of Procedure also specify the obligations of each director, as well as the role and powers of the Chairman and the Chief Executive Officer.

A member of the Central Social and Economic Committee attends the Board meetings in an advisory capacity, pursuant to Article L. 2312-75 of the French Labor Code.

French Law N° 2019-486 of May 22, 2019, on the growth and transformation of businesses (known as the PACTE Law) amended Article L. 225-27-1 of the French Commercial Code, lowering to eight the number of directors above which a second director representing employees must be appointed. Pursuant to those provisions, a second director representing employees was appointed by the SE Committee, on October 14, 2020.

The Rules of Procedure of the Board of Directors are reviewed on a regular basis in order to adapt them to changes in governance rules and practices. In 2014, changes were made to include, in particular, new provisions relating to information of the Board of Directors in the event of new directorships being assumed by the directors or changes in existing directorships, together with a reminder of the obligations of confidentiality inherent to the work of the Board. In December 2015, changes were made to provide for the appointment of a Lead Independent Director in the event of the combination of the functions of Chairman of the Board and Chief Executive Officer and to define his or her duties. In July 2018, changes were made in response to the new demands pertaining to social and environmental responsibility further to the revision of the AFEP-MEDEF Code in June 2018. In July 2020, the Rules of Procedure governing the Board of Directors were amended further to reflect the Corporation's conversion into a European company and the changes introduced by the PACTE Law. In July 2021, it was again amended to incorporate the change of name of the Corporation, decided at the Shareholders' Meeting on May 28, 2021.

The text of the latest unabridged version of the Rules of Procedure of the Board of Directors, as approved by the Board of Directors at its meeting on July 28, 2021, is provided below. It is also available on the Corporation's website under "Our Company/Our identity/Our governance."

## RULES OF PROCEDURES OF THE BOARD OF DIRECTORS

The Board of Directors of TotalEnergies SE[1] has approved the following rules of procedure.

### 1. ROLE OF THE BOARD OF DIRECTORS

The Board of Directors is a collegial body that determines the course of the Corporation's business and oversees its implementation, in accordance with its corporate interest by taking into account the social and environmental challenges of its activity. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the corporate purpose, the Board may address any issue related to the Corporation's operation and make any decision concerning the matters falling within its purview. Within this framework, the Board's duties and responsibilities include, but are not limited to, the following:

- appointing the executive directors[2] and supervising the handling of their responsibilities;
- striving to promote creation of long-term value by the Company;
- defining the Corporation's strategic orientations and, more generally, that of the Company;
- regularly reviewing, in relation with such strategic orientations, opportunities and risks such as financial, legal, operational, social and environmental risks as well as measures taken as a result;
- being informed of market developments, the competitive environment and the main challenges facing the Company, including with regard to social and environmental responsibility;
- approving investments or divestments being considered by the Company that exceed 3% of shareholders' equity as well as any significant transaction outside the announced strategy of the Company;
- reviewing information on significant events related to the Corporation's operations, in particular for investments and divestments involving amounts exceeding 1% of shareholders' equity;
- conducting any audits and investigations it deems appropriate. In particular, the Board, with the assistance of the Committees it has established, ensures that:
  - authority has been properly defined and that the various corporate bodies of the Corporation make proper use of their powers and responsibilities,
  - no individual is authorized to commit to pay or to make payments, on behalf of the Corporation, without proper supervision and control,
  - a system for preventing and detecting corruption and influence peddling is in place,
  - a non-discrimination and diversity policy within the Corporation and its Company exists and is implemented,
  - the internal control function operates properly and the statutory auditors are able to perform their mission satisfactorily, and
  - the Committees duly perform their responsibilities;
- approving the internal assessment procedure regarding ordinary agreements finalized under normal conditions as well as "regulated" agreements;
- ensuring the quality of the information provided to shareholders and financial markets through the financial accounts that it closes and the reports that it publishes, as well as when major transactions are completed;
- convening and setting the agenda for Shareholders' Meetings or meetings of bond holders;
- ensuring that its composition as well as that of the Committees it establishes are balanced in terms of diversity (nationality, age, gender, skills and professional experience);
- preparing on an annual basis, according to criteria set by the Code of corporate governance to which the Corporation refers, the list of directors it deems to be independent amongst the directors other than the director representing employee shareholders and the director or directors representing employees who are not counted for the purpose of determining the proportion of independent directors within the Board of Directors as well as within its Committees; and
- appointing a Lead Independent Director under the conditions set out in article 7, when the Chairman of the Board of Directors is also the Chief Executive Officer pursuant to a decision by the Board of Directors.

### 2. OBLIGATIONS OF THE DIRECTORS OF TotalEnergies SE

Before accepting a directorship, all candidates receive a copy of the Corporation's Articles of Association and these Rules of Procedure. They must ensure that they have broad knowledge of the general and particular obligations related to their duty, especially the laws and regulations governing directorships in European companies (*Societas Europaea*) registered in France, whose shares are listed in one or several regulated markets. They must also ensure that they are familiar with the guidelines set out in the Corporate Governance Code to which the Corporation refers.

Accepting a directorship creates an obligation to comply with applicable regulations relating in particular to the functioning of the Board of Directors, and with the ethical rules of professional conduct for directors as described in the Corporate Governance Code to which the Corporation refers.

It also creates an obligation to comply with these rules of procedure and to uphold the Company's values as described in its Code of Conduct.

When directors participate in and vote at meetings of the Board of Directors, they are required to represent all of the Corporation's shareholders and to act in the interest of the Corporation as a whole.

(1) TotalEnergies SE is referred to in these rules of procedure as the "Corporation" and collectively with all its direct and indirect subsidiaries as the "Company".
(2) The term "executive director" refers to the Chairman and Chief Executive Officer, if the Chairman of the Board of Directors is also responsible for the management of the Corporation; the Chairman of the Board of Directors and the Chief Executive Officer, if the two roles are carried out separately; and, where applicable, any Deputy Chief Executive Officers or Chief Operating Officers, depending on the organisational structure adopted by the Board of Directors.

### 2.1 Independence of judgment

Directors undertake to maintain, in all circumstances, the independence of their analysis, judgment, decision-making and actions as well as not to be unduly influenced, directly or indirectly, by other directors, particular groups of shareholders, creditors, suppliers or, more generally, any third party.

### 2.2 Other directorships or functions

Directors must keep the Board of Directors informed of any position they hold on the management team, board of directors or supervisory board of any other company, whether French or foreign, listed or unlisted. This includes any positions as a non-voting member (*censeur*) of a board. To this end, directors expressly undertake to promptly notify the Chairman of the Board of Directors, and the Lead Independent Director if one has been appointed, of any changes to the positions held, for any reason, whether appointment, resignation, termination or non-renewal.

### 2.3 Participation in the Board's work

Directors undertake to devote the amount of time required to duly consider the information they are given and otherwise prepare for meetings of the Board of Directors and of the Committees of the Board of Directors on which they sit. They may request from the executive directors any additional information they deem necessary or useful to their duties. If they consider it necessary, they may request training on the Company's specificities, businesses and industry sector, its challenges in terms of social and environmental responsibility as well as any other training that may be of use to the effective exercise of their duties as directors.

Unless unable, in which case the Chairman of the Board shall be provided advance notice, directors are to attend all meetings of the Board of Directors, meetings of Committees of the Board of Directors on which they serve and Shareholders' Meetings.

The Chairman of the Board ensures that directors receive all relevant information concerning the Corporation, including that of a negative nature, particularly analyst reports, press releases and the most important media articles.

### 2.4 Confidentiality

Directors and any other person who attends all or part of any meeting of the Board of Directors or its Committees are under the strict obligation not to disclose any details of the proceedings.

All documents reviewed at meetings of the Board of Directors, as well as information conveyed prior to or during the meetings, are strictly confidential.

With respect to all non-public information acquired during the exercise of their functions, directors are bound, even after their functions have ceased, by professional secrecy not to divulge such information to outside parties of the Corporation and to employees of the Company. This obligation goes beyond the mere duty of discretion provided for by law.

Directors must not use confidential information obtained prior to or during meetings for their own personal benefit or for the benefit of anyone else, for whatever reason. They must take all necessary steps to ensure that the information remains confidential. Confidentiality and privacy are lifted when such information is made publicly available by the Corporation.

### 2.5 Duty of loyalty

Directors must not take advantage of their office or duties to gain, for themselves or a third party, any monetary or non-monetary benefit.

They must notify the Chairman of the Board of Directors and the Lead Independent Director, if one has been appointed, of any existing or potential conflict of interest with the Corporation or any subsidiary of the Company, and they must refrain from participating in the vote relating to the corresponding resolution as well as from participating in any debates preceding such vote.

Directors must inform the Board of Directors of their participation in any transaction that directly involves the Corporation, or any subsidiary of the Company, before such transaction is finalized.

Directors must not assume personal responsibilities in companies or businesses having activities in competition with those of the Corporation or any subsidiary of the Company without first having informed the Board of Directors.

Directors undertake not to seek or accept from the Corporation, or from companies related to the Corporation, directly or indirectly, any advantages liable to be considered as being of a nature that may compromise their independence.

### 2.6 Duty of expression

Directors undertake to clearly express their opposition if they deem a decision being considered by the Board of Directors is contrary to the Corporation's corporate interest and they must endeavor to convince the Board of Directors of the pertinence of their position.

### 2.7 Transactions in the Corporation's securities and stock exchange rules

While in office, directors are required to hold the minimum number of registered shares of the Corporation as set by the Articles of Association.

Generally speaking, directors must act with the highest degree of prudence and vigilance when completing any personal transaction involving the financial instruments of the Corporation, its subsidiaries or affiliates that are listed or that issue listed financial instruments.

To that end, directors must comply with the following requirements:

1. Any shares or ADRs of the Corporation or its listed subsidiaries are to be held in registered form, either with the Corporation or its agent, or as administered registered shares with a French broker (or North American broker for ADRs), whose contact details are communicated by the director to the Secretary of the Board of Directors.
2. Directors shall refrain from directly or indirectly engaging in (or recommending engagement in) transactions involving the financial instruments (shares, ADRs or any other securities related to such financial instruments) of the Corporation or its listed subsidiaries or shareholding, or any listed financial instruments for which the director has insider information.

   Inside information is precise information, which has not yet been made public, relating directly or indirectly, to one or more issuers of financial instruments or to one or more financial instruments, and which, if it were made public, would be likely to have a significant effect on the prices of those financial instruments or on the price of financial instruments related to them.
3. Any transaction in the Corporation's financial instruments (shares, ADRs or related financial instruments) is strictly prohibited during the thirty calendar days preceding the publication of its periodic results (quarterly, half-year or annual) as well as on the day of any such announcement.
4. Moreover, directors shall comply with the provisions under which performance shares may not be sold:
   - within thirty calendar days prior to the publication by the Corporation of a press release relating to the half-year and annual results, such publication constituting the announcement of an interim financial report or a year-end report within the meaning of the applicable regulations;
   - as well as in the event of knowledge of inside information within the meaning of Article 7 of Regulation (EU) No 596/2014 on market abuse, and which has not been made public.

5. Directors are prohibited from carrying out transactions on any financial instruments related to the Corporation's share (Paris option market (MONEP), warrants, exchangeable bonds, etc.) and from buying on margin or short selling such financial instruments.
6. Directors are also prohibited from hedging the shares of the Corporation and any financial instruments related to them, and in particular:
   - Corporation shares that they hold; and, where applicable:
     - Corporation shares subscription or purchase options;
     - rights to Corporation shares that may be awarded free of charge; and
     - Corporation shares obtained from the exercise of options or definitively granted.
7. Directors must make all necessary arrangements to declare, pursuant to the form and timeframe provided by applicable law, to the French securities regulator (*Autorité des marchés financiers*) and to the Financial Conduct Authority, as well as to the Secretary of the Board of Directors, any transaction involving the Corporation's securities conducted by themselves or by any other person to whom they are closely related.

## 3. FUNCTIONING OF THE BOARD OF DIRECTORS

### 3.1 Board meetings

The Board of Directors meets whenever circumstances require and at least every three months.

Prior to each Board meeting, the directors receive the agenda and, whenever possible, all other materials necessary to consider for the session.

Directors may be represented by another director at a meeting of the Board, provided that no director holds more than one proxy at any single meeting.

Whenever authorized by law, directors are considered present for quorum and majority purposes who attend Board meetings through video conferencing or other audiovisual means that are compliant with the technical requirements set by applicable regulations.

### 3.2 Directors' compensation

Within the limit of a ceiling set by the Shareholders' Meeting, the Board of Directors determines the directors' compensation based on a fixed portion as well as a variable portion that takes into account each director's actual participation in the work of the Board of Directors and its Committees together with, if applicable, the exercise of the duties of the Lead Independent Director.

The Chief Executive Officer or, if the functions are combined, the Chairman and Chief Executive Officer, does not receive any compensation for his participation in the work of the Board and its Committees.

### 3.3 Secretary of the Board of Directors

The Board of Directors, based on the recommendation of its Chairman, appoints a Secretary of the Board who assists the Chairman in organizing the Board's activities, and particularly in preparing the annual work program and the schedule of Board meetings.

The Secretary of the Board drafts the minutes of Board meetings, which are then submitted to the Board for approval.

The minutes of the Board meetings are drafted in French and executed by the Chairman of the meeting and at least one director. If the Chairman of the meeting is unable to attend, it is executed by at least two directors. Non-binding translations of extracts from the minutes may be drawn up into another language than French. However, only the minutes in French shall prevail.

The Secretary of the Board is authorized to dispatch Board meeting minutes and to certify copies and extracts of the minutes.

The Secretary is responsible for all procedures pertaining to the functioning of the Board of Directors. These procedures are reviewed periodically by the Board.

All Board members may ask the Secretary for information or assistance.

### 3.4 Evaluation of the functioning of the Board

The Board evaluates its functioning at regular intervals not exceeding three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices.

## 4. ROLE AND AUTHORITY OF THE CHAIRMAN

The Chairman represents the Board of Directors and, except under exceptional circumstances, has sole authority to act and speak on behalf of the Board of Directors.

The Chairman organizes and oversees the work of the Board of Directors and ensures that the corporate bodies operate effectively and in compliance with good governance principles. The Chairman coordinates the work of the Board of Directors and its Committees. The Chairman establishes the agenda for each Board meeting, including items suggested by the Chief Executive Officer.

The Chairman ensures that directors receive, in a timely manner and in a clear and appropriate format, the information they need to effectively carry out their duties.

In liaison with the general management, the Chairman is responsible for maintaining relations between the Board of Directors and the shareholders of the Corporation. The Chairman monitors the quality of information disclosed by the Corporation.

In close cooperation with the general management, the Chairman may represent the Corporation in high-level discussions with government authorities and major partners of the Company, both at a national and international level.

The Chairman is regularly informed by the Chief Executive Officer of significant events and situations relating to the Company, particularly with regard to strategy, organisation, monthly financial reporting, major investment and divestment projects and key financial transactions. The Chairman may ask the Chief Executive Officer or other senior executives of the Corporation, provided that the Chief Executive Officer is informed, to supply any information that may help the Board or its Committees to carry out their duties.

The Chairman may meet with the statutory auditors in order to prepare the work of the Board of Directors and the Audit Committee.

Every year, the Chairman reports to shareholders at the Shareholders' Meeting on the Board of Directors' work.

## 5. AUTHORITY OF THE CHIEF EXECUTIVE OFFICER

The Chief Executive Officer is responsible for the Corporation's overall management. He represents the Corporation in its relationships with third parties and chairs the Executive Committee. The Chief Executive Officer is vested with the broadest powers to act on behalf of the Corporation in all circumstances, subject to the powers that are, by law, restricted to the Board of Directors and to the Annual Shareholders' Meeting, as well as to the Corporation's corporate governance rules and in particular these rules of procedure of the Board of Directors. The Board of Directors decides on any limitations of the powers of the Chief Executive Officer.

The Chief Executive Officer is responsible for presenting the Company's results and prospects to shareholders and the financial community on a regular basis. At each meeting of the Board of Directors, the Chief Executive Officer presents an overview of significant events of the Company.

The Chief Executive Officer proposes to the Board of Directors who present it to the shareholders at the Shareholders' Meeting, the Management Report of the Corporation as well as the consolidated Management Report.

## 6. BOARD COMMITTEES

The Board of Directors approved the creation of:

- an Audit Committee;
- a Governance and Ethics Committee;
- a Compensation Committee; and
- a Strategy & CSR Committee.

The roles and composition of each Committee are set forth in their respective rules of procedure, which have been approved by the Board of Directors.

The Committees perform their duties under the authority and for the benefit of the Board of Directors.

Each Committee reports on its activities to the Board of Directors.

## 7. LEAD INDEPENDENT DIRECTOR

### 7.1 Appointment of the Lead Independent Director

When the functions of the Chairman of the Board and Chief Executive Officer are combined, the Board of Directors appoints a Lead Independent Director, on the recommendation of the Governance and Ethics Committee, among the directors considered to be independent by the Board of Directors.

The appointed Lead Independent Director holds this position while in office as director, unless otherwise decided by the Board of Directors, which may choose to terminate his duties at any time. If for any reason the director is no longer deemed to be independent, his or her position as Lead Independent Director will be terminated.

The Lead Independent Director, if one is appointed, chairs the Governance and Ethics Committee.

### 7.2 Duties of the Lead Independent Director

The Lead Independent Director's duties include:

1. Convening meetings of the Board of Directors – Meeting Agenda

   The Lead Independent Director may request that the Chairman and Chief Executive Officer call a meeting of the Board of Directors to discuss a given agenda.

   He may request that the Chairman and Chief Executive Officer include additional items on the agenda of any meeting of the Board of Directors.

2. Participation in the work of the Committees

   If not a member of the Compensation Committee, the Lead Independent Director is invited to attend meetings and participates in the work of the Compensation Committee relating to the annual review of the executive directors' performance and recommendations regarding their compensation.

3. Acting as Chairperson of Board of Directors' meetings

   When the Chairman and Chief Executive Officer is unable to attend all or part of a meeting of the Board of Directors, the Lead Independent Director chairs the meeting. In particular, he or she chairs those Board meetings the proceedings of which relate to the evaluation of the performance of the executive directors and the determination of their compensation, which take place in their absence.

4. Evaluation of the functioning of the Board of Directors

   The Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

5. Prevention of conflicts of interest

   Within the Governance and Ethics Committee, the Lead Independent Director organizes the performance of due diligence in order to identify and analyze potential conflicts of interest within the Board of Directors. He informs the Chairman and Chief Executive Officer of any conflicts of interest identified as a result and reports to the Board of Directors on these activities.

   Pursuant to the obligation to declare conflicts of interest set out in article 2.5 of these Rules, any director affected by an existing or potential conflict of interest must inform the Chairman and Chief Executive Officer and the Lead Independent Director.

6. Monitoring of the satisfactory functioning of the Board and compliance with the Rules of Procedure

   The Lead Independent Director ensures compliance with the rules of the Corporate Governance Code to which TotalEnergies SE refers and with the Rules of Procedure of the Board of Directors. He or she may make any suggestions or recommendations that he deems appropriate to this end.

   He or she ensures that the directors are in a position to carry out their tasks under optimal conditions and that they have sufficient information to perform their duties.

   With the agreement of the Governance and Ethics Committee, the Lead Independent Director may hold meetings of the directors who do not hold executive or salaried positions on the Board of Directors. He reports to the Board of Directors on the conclusions of such meetings.

7. Relationships with Shareholders

   The Chairman and Chief Executive Officer and the Lead Independent Director are the shareholders' dedicated contacts on issues that fall within the remit of the Board.

   When a shareholder approaches the Chairman and Chief Executive Officer in relation to such issues, the latter may seek the opinion of the Lead Independent Director before responding appropriately to the shareholder's request.

   When the Lead Independent Director is approached by a shareholder in relation to such issues, he or she must inform the Chairman and Chief Executive Officer, providing his or her opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

   With the consent of the Chairman of the Board of Directors, the Lead Independent Director may represent the Board of Directors at meetings with the shareholders of the Corporation on matters of corporate governance.

### 7.3 Resources – conditions of office and activity report

The Chairman and Chief Executive Officer must regularly update the Lead Independent Director on the Corporation's activities.

The Lead Independent Director has access to all of the documents and information necessary for the performance of his or her duties.

The Lead Independent Director may consult the Secretary of the Board and use the latter's services in the performance of his or her duties.

Under the conditions set out in article 3.2 of these Rules and those established by the Board of Directors, the Lead Independent Director may receive additional compensation for the duties entrusted to him or her.

The Lead Independent Director must report annually to the Board of Directors on the performance of his or her duties. During Annual Shareholders' Meetings, the Chairman and Chief Executive Officer may invite the Lead Independent Director to report on his or her activities.

### 4.1.2.2 ACTIVITY OF THE BOARD OF DIRECTORS IN 2022

Directors are in principle summoned to Board meetings by letter sent the week preceding the meetings. Whenever possible, documents to be considered for decisions to be made at Board meetings are sent with the notice of meetings. The minutes of the previous meeting are expressly approved at the following Board meeting.

In 2022, the Board of Directors met 9 times. The overall attendance rate for the directors was 98.4%. The Audit Committee met 7 times, with an attendance rate of 100%; the Compensation Committee met 3 times, with 100% attendance; the Governance and Ethics Committee held 4 meetings, with 94.4% attendance; and the Strategy & CSR Committee met 4 times, with 100% attendance.

A table summarizing individual attendance at the Board of Directors and Committee meetings is provided below.

#### DIRECTORS' ATTENDANCE AT BOARD AND COMMITTEE MEETINGS IN 2022

| | Board of Directors | | Audit Committee | | Compensation Committee | | Governance and Ethics Committee | | Strategy & CSR Committee | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Directors** | Attendance rate | Number of meetings | Attendance rate | Number of meetings | Attendance rate | Number of meetings | Attendance rate | Number of meetings | Attendance rate | Number of meetings |
| Patrick Pouyanné, *Chairman and Chief Executive Officer* | 100% | 9/9 | – | – | – | – | – | – | 100% | 4/4 |
| Jacques Aschenbroich | 88.9% | 8/9 | – | – | 100% | 1/1 | 100% | 2/2 | – | 4[e] |
| Patricia Barbizet | 100% | 9/9 | 100% | 7/7 | – | – | 100% | 4/4 | 100% | 4/4 |
| Marie-Christine Coisne-Roquette *Lead Independent Director* | 88.9% | 8/9 | – | – | 100% | 3/3 | 100% | 4/4 | 100% | 4/4 |
| Jérôme Contamine | 100% | 9/9 | 100% | 7/7 | – | – | – | – | – | 3[e] |
| Lise Croteau | 100% | 9/9 | 100% | 7/7 | – | – | – | – | – | 4[e] |
| Mark Cutifani | 100% | 9/9 | – | – | 100% | 3/3 | – | – | – | 4[e] |
| Valérie Della Puppa Tibi[a][b] | 100% | 4/4 | – | – | 100% | 2/2 | – | – | – | 1[e] |
| Romain Garcia-Ivaldi[c] | 100% | 9/9 | 100% | 7/7 | – | – | – | – | – | 4[e] |
| Maria van der Hoeven | 100% | 9/9 | 100% | 7/7 | – | – | – | – | – | 4[e] |
| Glenn Hubbard | 100% | 9/9 | – | – | – | – | – | – | – | 4[e] |
| Anne-Marie Idrac | 100% | 9/9 | – | – | – | – | 75% | 3/4 | 100% | 4/4 |
| Emma de Jonge[b][d] | 100% | 5/5 | | | | | | | 100% | 3/3 |
| Jean Lemierre | 100% | 9/9 | – | – | – | – | 100% | 4/4 | 100% | 4/4 |
| Angel Pobo[c] | 100% | 9/9 | – | – | 100% | 1/1 | – | – | 100% | 1/1[f] |
| **Attendance rate** | **98.4%** | | **100%** | | **100%** | | **94.4%** | | **100%[g]** | |

(a) Director until May 25, 2022.
(b) Director representing employee shareholders.
(c) Director representing employees.
(d) Director since May 25, 2022.
(e) Voluntary participation (director not a member of the Strategy & CSR Committee).
(f) One participation as a member, then three voluntary participation.
(g) Excluding voluntary participation.

The Board meetings included, but were not limited to, a review of the following subjects:

**February 9**

- closing of the 2021 accounts (Consolidated Financial Statements, parent company accounts) after the Audit Committee's report and work performed by the statutory auditors
- draft allocation of the result of the Corporation, setting of the dividend for fiscal year 2021, ex-dividend and payment dates of final dividend for 2021
- 2022 shareholder return policy
- main investor relations messages
- presentation to the Board of the work of the Governance and Ethics Committee, which met on February 2, 2022
- presentation by an independent consultant firm of its report on the assessment of the Board's functioning
- update on directorships and committee memberships
- report of the Lead Independent Director on her mandate for fiscal year 2021
- assessment of the independence of the directors as of December 31, 2021
- allocation of the directors' compensation for the 2021 fiscal year
- Market Abuse Regulations – blackout periods
- information on transactions on the Corporation's securities by the executive directors
- update on directors' and executives' liability insurance
- update on the succession plan of the executive officers and of the Chairman and Chief Executive Officer
- preparation of the Annual Shareholders' Meeting: management report of the Board of Directors
- report on the implementation of the procedure to assess current transactions finalized under normal conditions and information on regulated agreements finalized by the Corporation
- information on Corporation share buybacks
- reduction in the Corporation's share capital by cancellation of treasury shares
- information on bond issues
- renewal of the authorization to issue bonds
- renewal of the authorization to issue security, commitments and guarantees
- renewal of the authorization to issue guarantees for certain financial transactions

- setting of the calendar related to the dividend (interim dividends and final dividend) for fiscal year 2023
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- presentation to the Board of the work of the Compensation Committee, which met on December 15, 2021 and February 2, 2022 (calculation of the compensation of the Chairman and Chief Executive Director for fiscal year 2021, compensation policy for fiscal year 2022, guidelines for the free granting of performances shares - 2022 Plan)

**March 16**

- update on the Company's assets in Russia
- approval of the Company's financial policy
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting on March 16, 2022
- Sustainability & Climate Report
- update on the presentation of the Sustainability and Climate strategy exposed to investors on March 24, 2022
- examination of the 16th draft resolution to be submitted to the Shareholders' Meeting on May 25, 2022: resolution a consultative nature asking to shareholders to give a favorable opinion on the *Sustainability & Climate - Progress Report 2022*
- presentation to the Board of the work of the Governance and Ethics Committee at its meeting on March 14, 2022
- update on the appointment process of the director representing employee shareholders
- proposal for modification of the Committees composition to be effective as of the Shareholders' Meeting on May 25, 2022
- presentation to the Board of the work of the Compensation Committee at its meeting on March 16, 2022
- compensation of the Chairman and Chief Executive Officer (in his absence) for fiscal year 2021
- compensation policy for directors: general principles of the setting of the compensation for executive directors, compensation policy applicable to the Chairman and Chief Executive Officer for fiscal year 2022 (in his absence), compensation policy for directors
- confirmation of the final grant of performance shares under the 2019 Plan in the light of the fulfillment of the performance conditions
- grant of performance shares to the Chairman and Chief Executive Officer and other beneficiaries (2022 Plan)
- presentation to the Board of the work of the Audit Committee at its meeting on March 16, 2022
- closing of 2021 accounts including the update of the Note on "Post closing event" integrating the situation of the Russo-Ukranian conflict to date
- approval of the new Company's tax policy
- preparation for the Annual Shareholders' Meeting: date and location of the Shareholders' Meeting; setting of the agenda for the Shareholders' Meeting; approval of the various chapters of the Universal Registration Document forming the management report as defined by the French Commercial Code, the report on corporate governance and the special reports on subscription and purchase options on shares of the Corporation and the granting of performance shares; approval of the report of the Board of Directors and of the text of the draft resolutions submitted to the Shareholders' Meeting; press release
- update on the answer to the opinion of the UES Amont – Global Services – Holding, Social and Economic Works Council on the strategic orientations of the Corporation
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights

**April 27**

- update on the regimes of sanctions adopted against Russia and their consequences on the Company's activities and on the organisation put in place to comply with; information of the Board concerning mail exchanges between the Corporation and an activist regarding activities of the Company in Russia
- consolidated financial statements, results for the first quarter of 2022 after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meeting on April 25, 2022
- update on the allocation principles for 2022 cash flow and on the shareholder return policy
- setting of a first interim dividend for fiscal year 2022
- main investor relations messages
- preparation and organization of the Shareholders' Meeting on May 25, 2022: draft answer to the request of the Central Social and Economic Works Council of the Upstream Global Services UES Amont – Global Services – Holding relating to the methods of examination by this corporate body of the resolutions presented to the Shareholders' Meeting, feedback on the Lead Independent Director's roadshows and letters from shareholders, request for the inclusion of draft resolutions on the agenda of the Shareholders' Meeting, amendment of the agenda of the Shareholders' Meeting with the inclusion of an item relating to the Corporation's strategy in terms of climate and energy transition
- information on the 2022 capital increase reserved for employees
- information on Corporation share buybacks
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights

**May 24**

- preparation and organization of the Shareholders' Meeting on May 25, 2022: answers to written questions, information on the vote on draft resolutions and reports of proxy advisors
- approval of the acquisition by TotalEnergies of 50% of Clearway Energy Group, US renewable energy player, as well as the sale of 50% minus 1 share of its 50.6% shareholding in SunPower to GIP
- approval of the participation of TotalEnergies in the project for the extension of the giant gas North Field project in Qatar
- approval of the acquisition by TotalEnergies of 25% of Adani New Industries Limited (ANIL) with a view of producing and commercializing green hydrogen in India at an industrial scale
- delegation of powers to operate on the Corporation's shares
- information related to the 2022 capital increase reserved for employees

**July 27**

- presentation to the Board of the work of the Governance and Ethics Committee on July 27, 2022
- update on the Shareholders' Meeting: presentation of the Corporation's institutional shareholding structure, information on the outcome of the votes at the Shareholders' Meeting on May 25, 2022 and summary of the 2022 shareholders' meetings
- confidentiality of the work of the Board of Directors
- conditions for exercising the term of director representing employee shareholders
- presentation of the strategic outlook for Exploration & Production, including safety, reduction of the environmental footprint, improvement of operational efficiency, resilience and project selectivity
- Consolidated Financial Statements, results for the second quarter of 2022 and the first half of 2022 after the Audit Committee's report and work performed by the statutory auditors; results of the parent company for the first half of 2022
- information of the Board on the half-yearly financial report

- minutes of the Audit Committee meetings on June 13, 2022 and July 25, 2022
- shareholder return policy; setting of a second interim dividend for fiscal year 2022; information on Corporation share buybacks
- main investor relations messages
- information on the declarations regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- program of the Strategic seminar on October 25 and 26, 2022 and site visit projects for members of the Board of Directors

#### September 22

- approval of the acquisition by TotalEnergies of 34% of Casa dos Ventos Holding, Brazil's leading renewable energy developer
- strategic outlook for Gas, Renewables & Power activities
- presentation of the Company's five-year plan
- update on the shareholder return policy
- approval of the Board's supplementary report on the 2022 capital increase reserved for employees
- approval of the principle of a new capital increase reserved for employees with delegation to the Chairman and Chief Executive Officer to decide its realization, to set the terms and conditions within the limits detailed by the Board

#### September 28

- shareholder return policy; decision to pay a special interim dividend amounting to 1 euro per share in December 2022 and continuation of a share buyback on the year
- presentation of the draft communication to investors on the outlook of TotalEnergies

#### October 26

- update on the Russian activities of the Company and information of the Board on the project to withdraw the two Company's representatives from the Board of Directors of the Novatek company
- presentation to the Board of the report of the meeting of the Strategy & CSR Committee on September 22, 2022
- presentation of the strategic outlook for Marketing & Services' activities
- Consolidated Financial Statements, results for the third quarter of 2022, after the Audit Committee's report and work performed by the statutory auditors
- presentation to the Board of the work of the Audit Committee at its meetings on October 11 and 24, 2022
- setting of a third interim dividend on the dividend for fiscal year 2022
- main investor relations messages
- information on Corporation share buybacks
- information on the notifications regarding the crossings of the thresholds in the Corporation's share capital or voting rights

#### December 14

- approval of the participation of TotalEnergies in the expansion project of a petrochemical complex downstream of the Satorp refinery, in Saudi Arabia, which will be integrated to the Satorp joint venture, taking into consideration the social and environmental challenges of the project
- approval of the investment project in LNG in the United States, taking into consideration the social and environmental challenges of the project
- information of the Board on the project to acquire SARB and Umm Lulu held by CEPSA at Abu Dabi, taking into consideration the social and environmental challenges of the project
- presentation to the Board of the work of the Strategy & CSR Committee held on October 25 and 26, 2022
- 2023 budget
- 2023 insurance policy
- the Corporation's policy on gender equality and pay equity
- information on Corporation share buybacks
- information on the notifications regarding the crossings of the thresholds in the Corporation's share capital or voting rights
- 2023 work program for the Board of Directors.

## 4.1.2.3 COMMITTEES OF THE BOARD OF DIRECTORS

### THE AUDIT COMMITTEE

#### Composition

As of March 15, 2023, the Audit Committee is made up of five members, with a 75% rate of independence (excluding director representing employees).

Ms. Maria van der Hoeven chairs the Committee. Ms. Patricia Barbizet, Ms. Lise Croteau, Mr. Jérôme Contamine and Mr. Romain Garcia-Ivaldi sit on the Committee. Ms. Lise Croteau and Mr. Jérôme Contamine were appointed financial experts in this Committee by the Board of Directors on March 17, 2021. The careers of the Committee members confirm their possession of acknowledged expertise in the financial, accounting or audit fields (refer to point 4.1.1.1 of this chapter).

On the proposal of the Governance and Ethics Committee, the Board of Directors decided to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 26, 2023 (for further information, please refer to point 4.1.1 of this chapter).

#### Duties

The rules of procedure of the Audit Committee define the Committee's duties as well as its working procedures.

The Audit Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended on February 8, 2017, in order to adapt the Committee's role and responsibilities to the European audit reform, on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

Notwithstanding the duties of the Board of Directors, the Audit Committee is tasked with the following missions in particular:

#### Regarding the statutory auditors:

- making a recommendation to the Board of Directors on the statutory auditors the Annual Shareholders' Meeting for designation or renewal, following their selection procedure organized by General Management and enforcing the applicable regulations;
- monitoring the statutory auditors in the performance of their missions and, in particular, examining the additional report drawn up by the statutory auditors for the Committee, while taking account of the observations and conclusions of the High Council of Statutory Auditors (Haut Conseil du Commissariat aux Comptes) further to the inspection of the auditors in question in application of the legal provisions, where appropriate;

- ensuring that the statutory auditors meet the conditions of independence as defined by regulations, and analyzing the risks to their independence and the measures taken to mitigate these risks; to this end, examining all the fees paid by the Company to the statutory auditors, including for services other than the certification of the financial statements, and making sure that the rules applying to the maximum length of the term of the statutory auditors and the obligation to alternate are obeyed;
- approving the delivery by the statutory auditors of services other than those relating to the certification of the financial statements, in accordance with the applicable regulations.

**Regarding accounting and financial information:**

- following the process to produce financial information and, where appropriate, formulating recommendations to guarantee its integrity, where appropriate;
- monitoring the implementation and the proper workings of a disclosures Committee in the Corporation and reviewing its conclusions;
- examining the assumptions used to prepare the financial statements, assessing the validity of the methods used to handle significant transactions and examining the Corporation financial statements and annual, half-yearly, and quarterly Consolidated Financial Statements prior to their examination by the Board of Directors, after regularly monitoring the financial situation, cash position and off-balance sheet commitments;
- guaranteeing the appropriateness and the permanence of the accounting policies and principles chosen to prepare the statutory and Consolidated Financial Statements of the Corporation;
- examining the scope of the consolidated companies and, where appropriate, the reasons why companies are not included;
- examining the process to validate the proved reserves of the companies included in the scope of consolidation;
- reviewing, if requested by the Board of Directors, major transactions contemplated by the Corporation.

**Regarding internal control and risk management procedures:**

- monitoring the efficiency of the internal control and risk management systems, and of internal audits, in particular with regard to the procedures relating to the production and processing of accounting, financial and non-financial information, without compromising its independence, and in this respect:
  - checking that these systems exist and are deployed, and that actions are taken to correct any identified weaknesses or anomalies;
  - reviewing, based in particular on the risk maps developed by the Corporation, the exposure to risks, such as financial risks (including material off-balance sheet commitments), legal risks, operational risks, social and environmental risks, as well as measures taken as a result;
  - annually examining the reports on the work of the TotalEnergies Risk Management Committee (formerly named Group Risk Committee) and the major issues for the Company;
  - examining the annual work program of the internal auditors and being regularly informed of their work;
  - reviewing significant litigation at least once a year;
  - overseeing the implementation of the Financial Code of Ethics;
  - proposing to the Board of Directors, for implementation, a procedure for complaints or concerns of employees, shareholders and others, related to accounting, internal control or auditing matters, and monitoring the implementation of this procedure;
  - where appropriate, examining important operations in which a conflict of interests could have arisen;
  - annually examining the results of the controls carried out within the framework of the procedure implemented in order to assess the agreements on current operations finalized under normal conditions and verifying the relevance of the criteria used to qualify those agreements.

The Audit Committee reports to the Board of Directors on the performance of its duties. It also reports on the results of the statutory auditors' mission concerning the certification of the financial statements, on how this mission contributed to the integrity of the accounting and financial information and its role in this process. It shall inform the Board of Directors without delay of any difficulties encountered.

**Organization of activities**

The Committee meets at least seven times each year: each quarter to review in particular the statutory financial statements of the Corporation and the annual and quarterly Consolidated Financial Statements, and at least on three other occasions to review matters not directly related to the review of the quarterly financial statements.

At each Committee meeting where the quarterly financial statements are reviewed, the Chief Financial Officer presents the Consolidated Financial Statements and the statutory financial statements of the Corporation, as well as the Company's financial position and, in particular, its liquidity, cash flow and debt situation. A memo describing risk exposure and off-balance sheet commitments is communicated to the Committee. This review of the financial statements includes a presentation by the statutory auditors underscoring the key points observed.

As part of monitoring the efficiency of the internal control and risk management systems, as well as internal audits with regard to the procedures relating to the production and processing of accounting, financial and non-financial information, the Committee is informed of the work program of the Audit & Internal Control division and its organization, on which it may issue an opinion. The Committee also receives a summary of the internal audit reports, which is presented at each Committee meeting where the quarterly financial statements are reviewed. The risk management processes implemented within the Company, as well as updates to them, are presented regularly to the Committee.

The Committee may meet with the Chairman and Chief Executive Officer or, if the functions are separate, the Chairman of the Board of Directors, the Chief Executive Officer as well as, if applicable, any Deputy Chief Executive Officer of the Corporation. It may perform inspections and consult with managers of operating or non-operating department, as may be useful in performing its duties. The Chairman of the Committee gives prior notice of such meeting to the Chairman and Chief Executive Officer or, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, both the Chairman of the Board of Directors and the Chief Executive Officer. In particular, the Committee is authorized to consult with those involved in preparing or auditing the financial statements (Chief Financial Officer and principal Finance Department managers, Audit Department, Legal Department) by asking the Corporations Chief Financial Officer to call them to a meeting.

The Committee consults with the statutory auditors regularly, including at least once a year without any Corporation representative present. If it is informed of a substantial irregularity, it recommends to the Board of Directors all appropriate action.

If it considers that it is necessary for the accomplishment of its mission, the Committee asks the Board of Directors for resources to receive assistance or conduct external studies on subjects within its competence. If the Committee calls on external consulting services, it makes sure that they are objective.

**Work of the Audit Committee**

In 2022, the Audit Committee met 7 times, with an attendance rate of 100%. The Chairman and Chief Executive Officer did not attend any of the meetings of the Audit Committee.

The Audit Committee's work mainly focused on the following areas:

**February 7**

- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the fourth quarter and of the 2021 fiscal year. Presentation by the statutory auditors of their work performed in accordance with French and American professional audit standards
- review of the Company's financial position
- update on outstanding balance of guarantees granted by TotalEnergies SE as of December 31, 2021
- update on the 2021 internal audit and 2022 audit plan
- update on the Sarbanes-Oxley process: self-assessment carried out by the Company and audit of the internal control related to financial reporting by the statutory auditors as part of the SOX 404 process
- presentation of the section of the Universal Registration Document on risk factors, countries under economic sanctions, legal proceedings and arbitration, internal control and risk management procedures relating to accounting and financial information
- review of the results of the controls carried out concerning the assessment procedure of ordinary transactions entered into under normal terms

**March 14**

- presentation of the declaration of independence of PricewaterhouseCoopers Audit
- review of the statutory auditors' reports, their declaration of independence and their obligations to the Audit Committee
- the Company's financial policy
- presentation of the insurance policy of the Company
- presentation of the statement of non-financial performance
- presentation of the update to the Vigilance plan and the implementation report
- presentation of the works on the European taxonomy
- process for validating hydrocarbon reserves at the end of the 2021 fiscal year
- presentation of the update of the Company's tax policy
- presentation of the report on the payments made to governments

**April 25**

- review of the Consolidated Financial Statements and statutory financial statements of the parent company for the first quarter of 2022, with a presentation by the statutory auditors of a summary of their limited review
- update on the Company's financial position as of March 31, 2022
- presentation of the 2022 health, safety and environment audit plan and review of the fiscal year 2021
- review of the internal audit

**June 13 (Geneva)**

- visit of the offices of Trading of two entities of the Companies
- update on the transition of the statutory auditors
- presentation of the risk map of Gas, Renewables & Power
- update on accounting standards and the scope of consolidation

**July 25**

- review of the Consolidated Financial Statements of the parent company of the second quarter and the first half of 2022, with a presentation by the statutory auditors of a summary of their limited review
- review of the Company's financial position as of June 30, 2022
- review of the internal audit

**October 11**

- closing of the 2023 agenda of the Audit Committee and calendar of the meetings dates of the Committee in 2024
- audit of the financial statements as of December 31, 2022: analysis by the statutory auditors of the main cross-cutting risks covered by the points of attention in their audit plan for the closing of the 2022 financial statements
- review of the Company's fiscal situation
- review of significant litigation and status update on significant litigation in progress worldwide involving the Company

**October 24**

- review of the Consolidated Financial Statements and statutory financial statements of the third quarter and the first nine months of 2022, with a presentation by the statutory auditors of a summary of their limited review
- review of the Company's financial situation as of September 30, 2022
- update on the internal audits conducted in the third quarter of 2022
- information of the Committee on compliance by relevant employees with the provisions of the Financial Code of Ethics
- presentation of the work of the TotalEnergies Risk Management Committee.

At each meeting related to the quarterly financial statements, the Committee reviewed the Company's financial position in terms of liquidity, cash flow and debt, as well as the significant risks and off-balance sheet commitments of TotalEnergies. The Audit Committee was periodically informed of the risk management processes implemented within the Company as well as the work carried out by the Audit & Internal Control division, which was presented at each Committee meeting where the quarterly financial statements were reviewed.

The Audit Committee reviewed the financial statements in a sufficient amount of time as set out in the recommendations of the AFEP-MEDEF Code.

The statutory auditors attended all Audit Committee meetings held in 2022.

The Chief Financial Officer, the Vice President Accounting and the Senior Vice President Audit & Internal Control division, as well as the Corporate Treasurer, attended all Audit Committee meetings related to their area.

The Chairman of the Committee reported to the Board of Directors on the Committee's work.

## THE GOVERNANCE AND ETHICS COMMITTEE

### Composition

As of March 15, 2023, the Governance and Ethics Committee is made up of five members, with a 80% rate of independence. Ms. Marie-Christine Coisne-Roquette chairs the Committee. Ms. Patricia Barbizet, Ms. Anne-Marie Idrac, Mr. Jacques Aschenbroich and Mr. Jean Lemierre are members of the Committee.

On the proposal of the Governance and Ethics Committee, the Board of Directors decided to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 26, 2023 (for further information, please refer to point 4.1.1 of this chapter).

### Duties

The rules of procedure of the Governance and Ethics Committee define the Committee's duties as well as its working procedures.

The Governance and Ethics Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended on July 25, 2018 to extend the Committee's role and responsibilities to subjects related to compliance and the prevention and detection of corruption and influence peddling, and on July 29, 2020, to take account of the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

The Governance and Ethics Committee is focused on:

- recommending to the Board of Directors the persons that are qualified to be appointed as directors, so as to guarantee the scope of coverage of the directors' competencies and the diversity of their profiles;
- recommending to the Board of Directors the persons that are qualified to be appointed as executive directors;
- preparing the Corporation's corporate governance rules and supervising their implementation;
- ensuring compliance with ethics rules and examining any questions related to ethics and situations of conflicting interests;
- reviewing matters regarding compliance as well as the prevention and detection of corruption and influence peddling.

Its duties include:

- presenting recommendations to the Board of Directors for its membership and the membership of its Committees, and the qualification in terms of independence of each applicant for Directors' positions on the Board of Directors;
- proposing annually to the Board of Directors the list of directors who may be considered as "independent directors";
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- assisting the Board of Directors in the selection of the organization of the governance of the Corporation as well as the selection and evaluation of the executive directors and examining the preparation of their possible successors including establishing a succession plan, including cases of unforeseeable absence;
- recommending to the Board of Directors the persons that are qualified to be appointed as directors;
- recommending to the Board of Directors the persons that are qualified to be appointed as members of a Committee of the Board of Directors;
- proposing methods for the Board of Directors to evaluate its performance, and in particular preparing means of regular self-assessment of the workings of the Board of Directors, and the possible assessment thereof by an external consultant;
- proposing to the Board of Directors the terms and conditions for allocating directors' compensation and the conditions under which expenses incurred by the directors are reimbursed;
- developing and recommending to the Board of Directors the corporate governance principles applicable to the Corporation;
- preparing recommendations requested at any time by the Board of Directors or the general management of the Corporation regarding appointments or governance;
- examining the conformity of the Corporation's governance practices with the recommendations of the Code of Corporate Governance to which the Corporation refers;
- supervising and monitoring the implementation of the approach of the Corporation with regard to ethics, compliance, prevention and detection of corruption and influence peddling and, in this respect, ensuring that the necessary procedures are in place, including those for updating the Company's Code of Conduct and that this Code is disseminated and applied;
- examining any questions related to ethics and potential situations of conflicting interests;
- examining changes in the duties of the Board of Directors.

**Work of the Governance and Ethics Committee**

In 2022, the Governance and Ethics Committee held 4 meetings, with 94.4% attendance. Its work mainly focused on the following areas:

**February 2**

- review of the terms of office of the directors and the members of the Committees
- report on the Board's 2022 assessment by an independent consultant and suggestions for improvement
- report of the Lead Independent Director on her mandate
- proposals to the Board of Directors on the assessment of the directors' independence, based on the independence criteria specified in the AFEP-MEDEF Code
- allocation of the compensation to directors and members of the Committees for fiscal year 2021
- update on the Market Abuse regulation (Regulation (EU) N° 596/2014 of April 16, 2014) and the applicable blackout periods
- information on transactions involving the Corporation's securities by executive directors
- update on the succession plans

**March 14**

- proposal to be presented to the Board to agree the resolution of one of the four candidates to the office of director representing employee shareholders
- proposal to be presented to the Board concerning the modification of the composition of the Committees after the Shareholders' Meeting on May 25, 2022
- examination of the sections of the report on corporate governance within its remit

**July 27**

- presentation of the Company's ethics and compliance policy
- update on the Shareholders' Meeting: summary of the 2022 Shareholders' Meetings, presentation of the structure of the institutional shareholding of the Corporation and of the outcome of the votes at the Shareholders' Meeting on May 25, 2022
- update on the confidentiality of the works of the Board of Directors
- proposals to be presented to the Board of Directors regarding the exercice conditions of the office of the director representing the employee shareholders
- setting of the meeting dates of the Annual Shareholders' Meeting of the Corporation
- discussions on changes in the composition of the Board of Directors

**December 14**

- assessment of the Board of Directors' practices
- change in the Board of Directors' composition and update on the search for new directors

## THE COMPENSATION COMMITTEE

### Composition

As of March 15, 2023, the Compensation Committee is made up of four members, with a 100% rate of independence(1). The Committee is chaired by Mr. Mark Cutifani. Ms. Marie-Christine Coisne-Roquette, Mr. Jacques Aschenbroich and Mr. Angel Pobo (director representing employees) are members of the Committee.

On the proposal of the Governance and Ethics Committee, the Board of Directors decided to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 26, 2023 (for further information, please refer to point 4.1.1 of this chapter).

### Duties

The rules of procedure of the Compensation Committee define the Committee's duties as well as its working procedures.

The Compensation Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

The Committee is focused on:

- examining the executive compensation policies implemented by the Company and the compensation of members of the Executive Committee;
- evaluating the performance and recommending the compensation of each executive director;
- preparing reports which the Corporation must present in these areas.

The Committee's duties include:

- examining the main objectives proposed by the Corporation's general management regarding compensation of the Company's senior executives, including stock option and performance share grant plans as well as equity-based plans, and advising on this subject;
- presenting recommendations and proposals to the Board of Directors concerning:
  - compensation, pension and life insurance plans, in-kind benefits and other compensation (including severance benefits) for the executive directors of the Corporation; in particular, the Committee proposes compensation structures that take into account the Corporation's strategic orientations, objectives and earnings, market practices as well as one or more criteria related to social and environmental responsibility;
  - stock option and performance share grants, particularly grants of restricted shares to the executive directors;
  - examining the compensation of the members of the Executive Committee, including stock option and performance share grant plans as well as equity-based plans, pension and insurance plans and in-kind benefits;
- preparing and presenting reports in accordance with these rules of procedure;
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- preparing recommendations requested at any time by the Chairman of the Board of Directors or the general management of the Corporation regarding compensation;
- at the request of the Chairman of the Board, examining all draft reports of the Corporation regarding compensation of the executive officers or any other matters within its competence.

### Work of the Compensation Committee

In 2022, the Compensation Committee held 3 meetings, with 100% attendance. The Chairman and Chief Executive Officer does not attend the Committee's deliberations regarding his own situation.

Its work mainly focused on the following areas:

#### February 2

- guidelines governing compensation for the Chairman and Chief Executive Officer for the 2021 and 2022 fiscal years and its presentation in the report on corporate governance

#### March 16

- compensation of the Chairman and Chief Executive Officer for fiscal year 2021
- compensation policy applicable to the Chairman and Chief Executive Officer for fiscal year 2022
- presentation of the Letter of the Chairman of the Compensation Committee and presentation of the section of the report on corporate governance regarding compensation
- confirmation of the grant of performance shares in respect of the 2019 plan
- grant of performance shares (2022 plan)
- compensation of the members of the Executive Committee

#### December 14

- benchmark of the first elements of comparison of the compensation of chairmen and CEOs of other companies
- analysis of the proxy advisors' recommendations
- guidelines governing compensation for the Chairman and Chief Executive Officer for fiscal year 2023

(1) Excluding the director representing employee shareholders in accordance with the recommendations of the AFEP-MEDEF Code (point 10.3).

### THE STRATEGY & CSR COMMITTEE

#### Composition

As of March 15, 2023, the Strategy & CSR Committee is made up of six members, including three independent directors and one director representing employees. Mr. Patrick Pouyanné chairs the Committee. Ms. Patricia Barbizet, Ms. Marie-Christine Coisne-Roquette, Ms. Anne-Marie Idrac, Ms. Emma de Jonge and Mr. Jean Lemierre are members of the Committee.

On the proposal of the Governance and Ethics Committee, the Board of Directors decided to modify the composition of the Committees of the Board of Directors at the end of the Shareholders' Meeting on May 26, 2023 (for further information, please refer to point 4.1.1 of this chapter).

#### Duties

The rules of procedure of the Strategy & CSR Committee define the Committee's duties as well as its working procedures.

The Strategy & CSR Committee's rules of procedure were last amended on July 28, 2021 to take account of the change in the Corporation's name decided at the Shareholders' Meeting on May 28, 2021. They had previously been amended notably on July 25, 2018, in order to take account of new social and environmental responsibility requirements, further to the revision of the AFEP-MEDEF Code in June 2018, and on July 29, 2020, to reflect the Corporation's conversion to a European company and various amendments to the Corporation's Articles of Association that were approved by the Shareholders' Meeting on May 29, 2020.

The text of the unabridged version of the rules of procedure approved by the Board of Directors on July 28, 2021, is available on the TotalEnergies website under "Our Company/Our identity/Our governance."

To allow the Board of Directors of the Corporation to ensure the Company's development, the Strategy & CSR Committee's duties include:

- examining the Company's overall strategy proposed by the Corporation's Chief Executive Officer;
- examining the Company's corporate social and environmental responsibility (CSR) issues and, in particular, matters relating to the incorporation of the Climate challenge in the Company's strategy;
- examining transactions that are of particular strategic importance;
- reviewing the competitive environment, the main challenges the Company faces, including with regard to social and environmental responsibility, as well as the resulting medium and long-term outlook for the Company.

#### Work of the Strategy & CSR Committee

In 2022, the Strategy & CSR Committee met 4 times, with 100% attendance. Its work mainly focused on the following areas:

**March 16**

- presentation of the Sustainability & Climate - Progress Report 2022
- TotalEnergies' strategy in Russia

**September 22**

- strategic outlook for Refining & Chemicals
- strategy and outlook of the Company; draft communication to investors on September 28, 2022

**October 25 and 26 (strategy workshop)**

- presentation of the energy markets, of the geopolitical context and of TotalEnergies' portfolio
- presentation dedicated to mobility and new energies
- presentation dedicated to the electricity business model
- discussion with Larry King, CEO of BlackRock
- presentation of TotalEnergies Survey 2022
- training of "Climate Fresco".

## 4.1.3 Report of the Lead Independent Director on her mandate

During the Board meeting of February 7, 2023, Ms. Coisne-Roquette presented a report on her mandate as Lead Independent Director in fiscal year 2022.

The duties of Lead Independent Director were exercised as follows during fiscal year 2022:

#### Contact with the Chairman and Chief Executive Officer

The Lead Independent Director is a privileged interlocutor of the Chairman and Chief Executive Officer with respect to significant matters concerning the Company's business and preparing meetings of the Board of Directors and of the Governance and Ethics Committee that she chairs. In addition to occasional exchanges, the Lead Independent Director thus met in 2022 the Chairman and Chief Executive Officer on a monthly basis and before each meeting of the Board of Directors.

#### Assessment of the Board of Directors' practices

The Lead Independent Director conducted the assessment of the Board of Directors in 2022 whose conclusions are disclosed in point 4.1.4 of this chapter.

#### Prevention of conflicts of interest

The Lead Independent Director has performed due diligence in order to identify and analyze potential conflicts of interest. The Lead Independent Director was thus consulted in September 2022 by a director, before he accepted a mandate within an advisory body of an investment bank. As this is an advisory role with no commercial dimension and relating to cross-functional subjects, the Lead Director has concluded that there is no conflict of interest. More generally, no situation relating to a project to take up a mandate or an external function by a director has led the Lead Director to refer the matter to the Governance and Ethics Committee.

#### Monitoring of the Board's practices

The Lead Independent Director held a meeting on December 14, 2022 with the directors having no executive nor salaried position on the Board. The directors were able to discuss their peers' comments as well as express their views in a constructive atmosphere, it being recalled that they were asked in November 2022 to complete the questionnaire submitted to them as part of the annual assessment of the functioning of the Board.

During the meeting, the various lessons that also emerge from the aforementioned assessment of the Board's functioning were confirmed, particularly with regard to the high quality of the debate with the Chairman and Chief Executive Officer and the files provided to the Board. Similarly, the current pace of one executive session per year was deemed appropriate.

During the meeting, the quality of the debates and work relating to the situation of the Company in Russia and the associated issues was underlined. The Board was thus able to fully support the strategy adopted by the Company throughout 2022.

The 2022 financial year also showed an increase in the communication challenges with which the Company regularly faces and to which the Board is attentive.

**Relationships with directors**

The Lead Independent Director had several contacts with the directors, in particular with the Chairpersons of the Committees. The Lead Independent Director took part in the search and selection of new directors and interviewed several potential candidates. He reported on his meetings, in particular with Mrs. Anne-Lise Lara and Mr. Dierk Paskert, to the Governance and Ethics Committee to finalize his recommendation to the Board of Directors with a view to proposing their appointment as directors to the Shareholders' Meeting.

**Relationships with shareholders**

The Chairman and Chief Executive Officer and the Lead Independent Director are the privileged points of contact for shareholders concerning matters under the Board's responsibility. In accordance with the provisions of the rules of procedure of the Board, when the Chairman and Chief Executive Officer is solicited in this area, he may consult the Lead Independent Director before responding.

When the Lead Independent Director is approached by a shareholder in relation to such issues, he or she must inform the Chairman and Chief Executive Officer, providing his or her opinion, so that the Chairman and Chief Executive Officer may respond appropriately to the request. The Chairman and Chief Executive Officer must inform the Lead Independent Director of the response given.

On April 5 and 6, 2022, the Lead Independent Director met with several shareholders representing more than 20% of the share capital of TotalEnergies SE. The governance of the Corporation, and more particularly the composition of the Board of Directors, its functioning and the role of the Lead Independent Director were discussed. These meetings also provided an opportunity to discuss TotalEnergies' transformation strategy, its progress on this matter, as well as the update on it climate ambition, described in the *Sustainability & Climate – 2022 progress report*. The subject of the compensation of the Chairman and Chief Executive Officer was also raised during these discussions.

**Shareholders' Meeting on May 25, 2022**

At the Shareholders' Meeting, the Lead Independent Director presented the specific tasks she performed as Lead Independent Director during fiscal year 2020, the main conclusions of the investor meetings she attended, the report on the Board's activity in 2021, as well as the new directors and the composition of the Board of Directors at the end of the Shareholders' Meeting.

**Visits to Company sites by the directors**

The members of the Audit Committee held a meeting in Geneva and visited the offices of TOTSA TotalEnergies Trading SA and of GRP in June 2022, in order to better understand the activities and measure the associated issues. Site visits by groups of directors are planned for the first half of 2023 in France, Qatar and Congo.

## 4.1.4 Assessment of the Board of Directors' practices

The Lead Independent Director manages, in accordance with point 7.2.4 of the Board's Rules of Procedure, the evaluation process relating to the functioning of the Board of Directors, using a questionnaire send to each director on November 8, 2022.

The Lead Independent Director reported on this evaluation to the Governance and Ethics Committee at its meetings on December 14, 2022 and February 1, 2023 and then to the Board of Directors which discussed its operating conditions at its meeting on February 7, 2023.

In accordance with point 3.4 of its internal regulations, the Board of Directors conducts a formal assessment of its own functioning at regular intervals of up to three years. The evaluation is carried out under the supervision of the Lead Independent Director, if one has been appointed, or under the supervision of the Governance and Ethics Committee, with the assistance of an outside consultant. The Board of Directors also conducts an annual review of its practices. Furthermore, in accordance with point 7.2.4 of the internal regulations of the Board of Directors, the Lead Independent Director manages the evaluation process relating to the functioning of the Board of Directors and reports on this evaluation to the Board of Directors.

It is reminded that, at the beginning of 2022, a formal assessment, with the assistance of an external consultant, took place under the supervision of the Lead Independent Director. It was carried out in the form of a detailed questionnaire, to which all the directors responded. At the beginning of 2020 and of 2021, a debate was held about the annual functioning of the Board based on a questionnaire filled in by Board members.

Furthermore, in accordance with point 7.2.6 of the Rules of procedure of the Board of Directors, which states that the Lead Independent Director may hold meetings of directors who do not hold executive or salaried positions on the Board of Directors, such a meeting was held on December 14, 2022, at the initiative of the Lead Independent Director. All the directors who do not hold executive or salaried positions on the Board of Directors took part in this meeting alongside Ms. Marie-Christine Coisne-Roquette.

This evaluation revealed a positive assessment of the functioning of the Board of Directors and its committees.

In particular, the following points were noted:

- when a comparison is made by directors with past practices, it always goes in the direction of improvement, for example on the quality of strategic seminars
- the transparency of the Chairman and Chief Executive Officer, his intellectual honesty, his competence, his knowledge of the files and the possibility of addressing all subjects without taboo are recognized;
- the quality of the Lead Independent Director's work is praised by all;
- the format of directors' lunches and the discussions to which they give rise are extremely appreciated and considered to be a quality element of governance.

It was pointed out that the suggestions for improving the functioning of the Board identified by the Board of directors at the meeting on February 9, 2022 have been implemented, namely:

- continue to change the composition of the Board to reflect the Company's transformation in electricity and new energies. Following a research process, the introduction within the Board of additional expertise in the field of electricity will be submitted to the Board of Directors with a view to a proposal for appointment by the Shareholders' Meeting on May 26, 2023;
- encourage a more sequential dispatch of documents relating to the work of the Board and its Committees, in particular the dispatch of minutes within a short period of time after meetings;
- strengthen the training program for directors, in particular on climate and CSR subjects;
- structure the induction program for new directors and set up a program for mentoring by older directors;
- organize the presence to Board meetings of members of the Executive Committee depending on the agenda.

The current rate of one executive session per year is considered appropriate. An additional meeting on a specific subject may be held if, where appropriate, several directors request it.

The following ways of potentially improving the functioning of the Board were identified:

- conduct a specific review of some of the main risks selected by the Board based on the presentation of the risk mapping;
- further develop the Board's information in terms of competitive analysis;
- develop opportunities for directors to know members of the Executive Committee better; it should be noted in this respect that the site visits organized in the first half of 2023 for directors contribute to their training and allow them to meet members of the Executive Committee and local management;
- reassess training needs in the second half of the year, knowing that an external speaker will be invited to the strategic seminar and that the climate training modules identified among the modules available to TotalEnergies employees are accessible on request to directors.

## 4.1.5 General Management

### 4.1.5.1 UNIFIED MANAGEMENT FORM

#### COMBINATION OF THE MANAGEMENT POSITIONS

Mr. Patrick Pouyanné has been a director and the Chairman of the Board of Directors of TotalEnergies since December 19, 2015. He has served as its Chief Executive Officer since October 22, 2014.

On the occasion of the renewal of his directorship, the meeting of the Board of Directors, held at the end of the Shareholders' Meeting on May 28, 2021, decided to renew Mr. Patrick Pouyanné's term of office as Chairman of the Board of Directors and Chief Executive Officer for the duration of his new term of office as a director, *i.e.*, until the Shareholders' Meeting called to approve the financial statements for the year 2023 in 2024.

At the Board of Directors meeting of March 17, 2021, the Lead Independent Director indicated that the discussions held with the Governance and Ethics Committee in the best interests of the Corporation had led to a firm proposal to continue to combine the functions of Chairman and Chief Executive Officer. Indeed, this management form of the Corporation is considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. More than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company.

**Balance of power**

The Lead Independent Director also recalled that the unity of the power to manage and represent the Corporation is also particularly well regulated by the Corporation's governance.

The balance of power is established through the quality, complementarity and independence of the members of the Board of Directors and its four Committees, as well as through the Articles of Association and the Board's Rules of Procedure, which define the means and prerogatives of the Lead Independent Director, notably:

- in her relations with the Chairman and Chief Executive Officer: contribution to the agenda of Board meetings or the possibility of requesting a meeting of the Board of Directors and sharing opinions on major issues;
- in her contribution to the work of the Board of Directors: chairing meetings in the absence of the Chairman and Chief Executive Officer, or when the examination of a subject requires his abstention, evaluation and monitoring of the functioning of the Board, prevention of conflicts of interest, and dialogue with the directors and Committee Chairpersons;
- in her relations with shareholders: the possibility, with the approval of the Chairman and Chief Executive Officer, of meeting with them on corporate governance issues, a practice that has already been used on several occasions.

The balance of power within the governance bodies, in addition to the independence of its members, is further strengthened by the full involvement of the directors, whose participation in the work of the Board and its Committees is exemplary. The diversity of their skills and expertise also enables the Chairman and Chief Executive Officer to benefit from a wide range of contributions.

In addition, the Board's internal rules provide that any investment or divestment transactions contemplated by the Company involving amounts in excess of 3% of shareholders' equity must be approved by the Board, which is also kept informed of all significant events concerning the Corporation's operations, in particular investments and divestments in excess of 1% of shareholders' equity.

Lastly, the Corporation's Articles of Association provide the necessary guarantees of compliance with good governance practices in the context of a unified management structure. In particular, they provide that the Board may be convened by any means, including orally, or even at short notice depending on the urgency of the matter, by the Chairman or by one third of its members, including the Lead Independent Director, at any time and as often as the interests of the Corporation require.

#### LEAD INDEPENDENT DIRECTOR

Ms. Marie-Christine Coisne-Roquette has been acting as Lead Independent Director since the end of the Shareholders' Meeting on May 29, 2020. This position was previously held by Ms. Barbizet.

Given her seniority on the Board, Ms. Marie-Christine Coisne-Roquette will no longer be independent under the rules of the Afep-Medef Code and will thus no longer be able to assume the function of Lead Independent Director. In this context, the Board of Directors, at its meeting on February 7, 2023, decided that, at the end of the Shareholders' Meeting on May 26, 2023, the functions of Lead Independent Director will be assigned to Mr. Jacques Aschenbroich, independent director.

Pursuant to the provisions of the Rules of Procedure of the Board of Directors, the Lead Independent Director chairs the Governance and Ethics Committee.

The duties of the Lead Independent Director are described in detail in the Rules of Procedure of the Board of Directors, the full version of which is provided in point 4.1.2.1 of this chapter.

### 4.1.5.2 THE EXECUTIVE COMMITTEE AND THE COMPANY PERFORMANCE MANAGEMENT COMMITTEE

#### THE EXECUTIVE COMMITTEE

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Company.

It implements the strategic vision defined by the Board of Directors and authorizes the corresponding capital expenditures, subject to the Board of Directors' approval for investments exceeding 3% of shareholders' equity and any significant transaction outside the scope of the company's stated strategy, and subject to the Board's review for investments involving amounts exceeding 1% of shareholders' equity.

The Executive Committee meets as often as necessary and generally on a fortnightly basis.

As of December 31, 2022, the members of Executive Committee were as follows:

- Patrick Pouyanné, Chairman and Chief Executive Officer and Chairman of the Executive Committee
- Helle Kristoffersen, President, Strategy & Sustainability
- Stéphane Michel, President, Gas, Renewables & Power
- Thierry Pflimlin, President, Marketing & Services
- Bernard Pinatel, President, Refining & Chemicals
- Jean-Pierre Sbraire, Chief Financial Officer
- Namita Shah, President, OneTech
- Nicolas Terraz, President, Exploration & Production.

The members of the Executive Committee as of December 31, 2022, informed TotalEnergies that they have not been convicted of fraud, have not been associated with bankruptcy, sequestration, receivership or court-ordered liquidation proceedings, and have not been subject to any incrimination, conviction or sanction pronounced by an administrative authority or professional body, prohibited from managing a company or disqualified from doing so over the last five years.

#### THE PERFORMANCE MANAGEMENT COMMITTEE OF THE COMPANY

The mission of the Performance Management Committee of the Company is to examine, analyze and monitor the HSE, financial and operational results of the Company. It is chaired by the Chairman and Chief Executive Officer and meets monthly.

In addition to the members of the Executive Committee, this Committee is made up of the heads of the TotalEnergies' main business units, along with some of the Senior Vice-Presidents of functions at the Company and business segments levels.

#### BALANCED REPRESENTATION OF WOMEN AND MEN AND DIVERSITY RESULTS IN THE 10% OF POSITIONS AT THE CORPORATION WITH THE HIGHEST RESPONSIBILITIES (ARTICLE L. 22-10-10, 2° OF THE FRENCH COMMERCIAL CODE)

TotalEnergies is committed to respecting the principle of gender equality, principle it promotes and it ensures that it is properly applied. The promotion of gender equality is fostered Company-wide through a global policy of gender diversity, quantitative targets set by executive management, human resources procedures that take gender concerns into consideration, agreements aimed at promoting a better work-life balance and actions to raise awareness and train the workforce.

TotalEnergies' commitment to gender equality in the workplace begins at the recruitment stage and continues throughout a person's career, particularly in the process of identifying high-potential employees and appointing managers.

In order to ensure a better gender balance in its senior management, the Company has set itself the following targets for improvement by 2025 for the highest executive instances in the Company:

- 30% of women on the Executive Committee: women represented 25% in 2022;
- 30% of women in the G70[1]: women represented 32.9% in 2022.

The Company has set the same target for its other governing bodies and leadership positions, with women comprising:

- 30% of women among senior executives: 27.5% were women in 2022;
- 30% of women in senior management: 23.8% were women in 2022.

Moreover, TotalEnergies develops talent pools and regularly organizes campaigns to identify high-potential employees in the Company, in order to offer them a specific development program. At year-end 2022, women accounted for 38.3% of the pool of high-potential employees. Furthermore, there is a particular focus on attracting more women to technical and business careers (at year-end 2022, 23.9% of women were among managers on permanent contracts in technical or sales positions[2]).

At TotalEnergies SE's level, the Company's commitment has materialized by the entry of two women in the Executive Committee (8 people) since 2016. With regard to gender balance in the 10% of the highest management positions of the Corporation[3], the proportion of women equals 20.0%. At Company level, which is the most relevant perimeter in view of the Company's activities, that percentage stands at 24.9%[4].

(1) Senior executives with the most important responsibilities.
(2) Technical and sales functions, excluding support functions (e.g., human resources, legal affairs, purchasing, etc.).
(3) TotalEnergies SE, the Company's parent company, has close to 3,000 employees (full-time-equivalent employees present on December 31 of each fiscal year for the period in question).
(4) Proportion calculated on the basis of 98,679 employees.

## Profile, experience and expertise of the members of the Executive Committee

### Patrick Pouyanné

**Chairman and Chief Executive Officer of TotalEnergies SE**

Chairman of the Strategy & CSR Committee

Born on June 24, 1963 (French)

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

#### Biography & Professional Experience

A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, Mr. Pouyanné held, between 1989 and 1996, various administrative positions in the Ministry of Industry and other cabinet positions (technical advisor to the Prime Minister – Édouard Balladur – in the fields of the Environment and Industry from 1993 to 1995, Chief of staff for the Minister for Information and Aerospace Technologies – François Fillon – from 1995 to 1996). In January 1997, he joined TotalEnergies' Exploration & Production division, first as Chief Administrative Officer in Angola, before becoming Company representative in Qatar and President of the Exploration and Production subsidiary in that country in 1999. In August 2002, he was appointed President, Finance, Economy and IT for Exploration & Production. In January 2006, he became Senior Vice President, Strategy, Business Development and R&D in Exploration & Production and was appointed a member of the Company's Management Committee in May 2006. In March 2011, Mr. Pouyanné was appointed Deputy General Manager, Chemicals, and Deputy General Manager, Petrochemicals. In January 2012, he became President, Refining & Chemicals and a member of the Company's Executive Committee.

On October 22, 2014, he became Chief Executive Officer of TOTAL S.A. and Chairman of the Company's Executive Committee. On May 29, 2015, he was appointed by the Annual Shareholders' Meeting as director for a three-year term. The Board of Directors appointed him as Chairman of the Board of Directors as of December 19, 2015. Mr. Pouyanné thus became the Chairman and Chief Executive Officer. Following the renewal of Mr. Pouyanné's directorship at the Shareholders' Meeting on June 1, 2018 and then on May 28, 2021 for a three-year period, the Board of Directors renewed Mr. Pouyanné's term of office as Chairman and Chief Executive Officer for a period equal to that of his directorship.

Mr. Pouyanné is thus the Chairman and Chief Executive Officer of TotalEnergies SE.

On June 1, 2022, Mr. Pouyanné was appointed Chairman of the French association, Entreprises pour l'Environnement (EpE). Mr. Pouyanné has also been the Chairman of the Alliance pour l'Education – United Way association since June 2018, having accepted this office as Chairman and Chief Executive Officer of the Corporation. In addition, he has been a member of the Board of Directors of Capgemini (since May 2017), of the Board of Directors of École Polytechnique (since September 2018), of the Institut Polytechnique of Paris (since September 2019), of the Association Française des Entreprises Privées (French association of private companies) (since 2014), of the Institut du Monde Arabe (since 2017) and of the foundation La France s'engage (since 2017).

## Helle Kristoffersen

**President, Strategy & Sustainability**

Member of TotalEnergies' Executive Committee

Born on April 13, 1964 (French and Danish)
Member of TotalEnergies' Executive Committee since August 19, 2019

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

Helle Kristoffersen is President Strategy & Sustainability of TotalEnergies and member of the Executive Committee.

Before that, she was President Strategy & Innovation from 2019 to 2021, SVP Strategy and Corporate Affairs in Gas Renewables & Power from 2016 to 2019 and SVP Strategy & Business Intelligence from January 2012 to September 2016, deputy SVP Strategy from 2011 to 2012, within the Company she joined in 2011. Between 1994 and 2011, she held a number of general management positions within the Alcatel group, which became Alcatel-Lucent, and then Nokia.

A dual Danish and French national, Helle Kristoffersen is a graduate of the Ecole Normale Supérieure (Ulm) and the Paris Graduate School of Economics, Statistics and Finance (ENSAE). She also holds a master's degree in econometrics from Université Paris Sorbonne. She is an alumna of the French Institute for Higher National Defense Studies (IHEDN) and a Knight of the French Legion of Honor.

## Stéphane Michel

**President, Gas, Renewables & Power**

Member of TotalEnergies' Executive Committee

Born on February 17, 1973 (French)
Member of TotalEnergies' Executive Committee since March 1, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

A graduate of École Polytechnique (1994) and École des Mines in Paris (1997), Stéphane Michel is Chief Engineer of the France's Corps des Mines.

After serving as Energy Advisor to the French Finance Minister (2002-2004), Stéphane Michel joined the Company in 2005, working as Business Development Manager for the Downstream Asia division, based in Singapore.

In 2008, Stéphane Michel, is appointed TotalEnergies E&P Qatar JV Business Development Manager and in 2010 Managing Director of TotalEnergies E&P Libya. In 2011, he became TotalEnergies E&P Qatar Managing Director and on April 1, 2014, the E&P Senior Vice President Middle East/North Africa and a Member of the Management Committee of the Exploration & Production segment.

On March 1, 2021, Stéphane Michel is appointed President of Gas, Renewables and Power segment and a member of the Executive Committee.

## Thierry Pflimlin

**President, Marketing & Services**

Member of TotalEnergies' Executive Committee

Born on October 22, 1959 (French)
Member of TotalEnergies' Executive Committee since November 15, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

Graduated from the Strasbourg Political Studies Institute and from the HEC Business School, Thierry Pflimlin started his career as commercial attaché at the French Embassy in Hanoi. In 1984, he joined the TOTAL Group where he held a number of international positions in Asia and Africa. After five years as CEO of TOTAL Asia Pacific in Singapore, he moved back to the head office in 2012 to become CEO of TOTAL France. In 2013, he became Senior Vice President Corporate Affairs in the Marketing & Services Division. In September 2016, he became President of Total Global Services. Since November 15, 2021, Thierry Pflimlin has been President, Marketing & Services and a TotalEnergies Executive Committee member.

## Bernard Pinatel

**President, Raffinage-Chimie**

Member of TotalEnergies' Executive Committee

Born on June 5, 1962 (French)
Member of TotalEnergies' Executive Committee since September 1, 2016

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

Bernard Pinatel is a graduate of the École Polytechnique and the Institut d'Études Politiques (IEP) de Paris and has an MBA from the Institut Européen d'Administration des Affaires (INSEAD). He is also a statistician-economist (École Nationale de la Statistique et de l'Administration Économique – ENSAE).

He started his career at Booz Allen & Hamilton, before joining the company TotalEnergies in 1991, where he occupied various operational positions in the production plants and head offices of different subsidiaries, including Hutchinson and Coates Lorilleux. He became the CEO France, and then the CEO Europe of Bostik between 2000 and 2006, and the Chairman and Chief Executive Officer of Cray Valley, from 2006 to 2009. In 2010, he became the Chairman and Chief Executive Officer of Bostik. At TotalEnergies, he became a member of the Company's Management Committee in 2011 and was member of the Management Committee of Refining & Chemicals from 2011 to 2014.

When Arkema took over Bostik in February 2015, he was nominated as a member of the Executive Committee of Arkema, responsible for the High-Performance Materials activity.

He joined TotalEnergies on September 1, 2016, and was appointed President of the Refining & Chemicals segment and a member of the Executive Committee.

## Jean-Pierre Sbraire

**Chief Financial Officer**

Member of TotalEnergies' Executive Committee

Born on October 28, 1965 (French)
Member of TotalEnergies' Executive Committee since August 1, 2019

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

Jean-Pierre Sbraire began his career at TotalEnergies in 1990 in the Trading & Shipping Division. In 1995, he joined Exploration & Production, holding various positions in Paris and Nigeria in finance, economics and business development.

In 2005, he was appointed General Secretary and Finance Manager for TotalEnergies in Venezuela. In 2009, within the Company's Financial Division, he became Senior Vice President, E&P Subsidiaries Financial Operations.

In 2012, he was appointed Vice President, Equity Crude Acquisitions in Trading & Shipping. From September 2016 to September 2017, he served as Company's Treasurer. He then accepted the position of Deputy Chief Financial Officer. In 2019, he was appointed Chief Financial Officer and Executive Committee member.

Jean-Pierre Sbraire is a graduate of ENSTA ParisTech engineering school and has a master's degree from IFP School.

## Namita Shah

**President, OneTech**

Member of TotalEnergies' Executive Committee

Born on August 21, 1968 (French)
Member of TotalEnergies' Executive Committee since September 1, 2016

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

### Biography & Professional Experience

Namita Shah began her career as an Associate Attorney at Shearman & Sterling, a New York-based law firm, where she spent eight years providing advice and supervising transactions including those involving financings of pipeline and power plant companies.

She joined TotalEnergies in 2002 as a Legal Counsel in the E&P mergers and acquisitions team. In 2008, she joined the New Business team, where she was responsible for business development in Australia and Malaysia. She held this position until 2011 when she moved to Yangon as General Manager, TotalEnergies E&P Myanmar.

On July 1, 2014, she was appointed Senior Vice President, Corporate Affairs, Exploration & Production.

On July 1, 2016, Namita Shah was appointed President, People & Social Responsibility and a member of the Executive Committee.

On September 1, 2021, she was appointed President, OneTech and member of the Executive Committee. She continues to supervise the Company People & Social Engagement team, which reports to her.

Indian and French, Namita Shah is a graduate of Delhi University and the New York University of Law.

## Nicolas Terraz

**President, Exploration & Production**

Member of TotalEnergies' Executive Committee

Born on September 9, 1969 (French)
Member of TotalEnergies' Executive Committee since September 1, 2021

Business address: TotalEnergies SE, 2 place Jean Millier, La Défense 6, 92400 Courbevoie, France

**Biography & Professional Experience**

Nicolas Terraz started his career in the French Ministries of Industry (1994-1997) and Public Works and Transportation (1997-2001) and joined TotalEnergies in 2001.

After holding positions in France and in Qatar, Nicolas Terraz served as Managing Director of Total E&P Myanmar (2008-2011), Managing Director of Total E&P France (2011-2014), Vice President New Ventures for Exploration and Production (2014-2015) and Managing Director of Total Upstream Companies in Nigeria (2015-2019).

In 2019, Nicolas Terraz was appointed Senior Vice President Africa and a member of the management committee of the Exploration & Production segment of TotalEnergies.

Born in 1969, Nicolas Terraz is a graduate of the Ecole Polytechnique and the Ecole Nationale des Ponts et Chaussées and earned a Master of Science in Technology and Policy from the Massachusetts Institute of Technology.

## 4.1.6 Shares held by the administration and management bodies

As of December 31, 2022, based on statements by the persons concerned, registered shares ledger and the register of the FCPE fund units custodian, all of the members of the Board of Directors and the executive officers[1] of TotalEnergies held less than 0.5% of the share capital:

- members of the Board of Directors[2]: 378,680 TotalEnergies shares and 20,502.82 units of the FCPE (collective investment fund) invested in TotalEnergies shares;
- Chairman and Chief Executive Officer: 338,695 TotalEnergies shares and 12,328.68 units of the FCPE (collective investment fund) invested in TotalEnergies shares;
- executive officers: 749,618 TotalEnergies shares and 216,699.77 units of the FCPE invested in TotalEnergies shares.

By decision of the Board of Directors on February 7, 2023:

- Executive directors of the Corporation are required to hold a number of TotalEnergies shares equal in value to five years of the fixed portion of their annual compensation; and
- members of the Executive Committee are required to hold a number of TotalEnergies shares equal in value to four years of the fixed portion of their annual compensation.

Executive directors of the Company and members of the Executive Committee have a maximum period of five years from taking office to reach these holding levels.

Executive directors and members of the Executive Committee cannot sell the performance shares that were definitively awarded to them until they have reached the required level of ownership of TotalEnergies shares.

The number of TotalEnergies shares to be considered comprises TotalEnergies shares and units of FCPEs invested in TotalEnergies shares.

(1) As of December 31, 2022, the Company's executive officers are the members of the Executive Committee, i.e. eight people. During the fiscal year 2020, the Corporation, taking into account the definition used by the US regulations applicable to Executive Officers and in the interest of harmonization, has chosen to reduce the list of its Executive Officers to the members of the Executive Committee in order to align this list with the list of "Persons Discharging Managerial Responsibilities" (PDMR) within the meaning of Article 19.5 of Regulation (EU) No. 596/2014 on Market Abuse. For the purposes of this regulation, PDMRs are defined as the persons referred to in Article L. 621-18-2 (a) of the French Monetary and Financial Code ("the directors") and the persons referred to in Article L. 621-18-2 (b) of the same code that the Corporation has defined as the members of the TotalEnergies Executive Committee.

(2) Including the Chairman and Chief Executive Officer, the director representing employee shareholders and the directors representing employees.

## SUMMARY OF TRANSACTIONS IN THE CORPORATION'S SECURITIES (ARTICLE L. 621-18-2 OF THE FRENCH MONETARY AND FINANCIAL CODE)

The following table presents transactions, of which the Corporation has been informed, in the Corporation's shares or related financial instruments carried out in 2022 by the individuals referred to in paragraphs a), b)[1] and c) of Article L. 621-18-2 of the French Monetary and Financial Code:

| 2022 | | Acquisition | Subscription | Transfer | Exchange | Exercise of options |
|---|---|---|---|---|---|---|
| Patrick Pouyanné[a] | TotalEnergies shares | 71,208 | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | 746.31 | 292.49 | – | – | – |
| Jacques Aschenbroich[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Patricia Barbizet[a] | TotalEnergies shares | 3,000 | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Marie-Christine | TotalEnergies shares | 441 | – | – | – | – |
| Coisne-Roquette[a] | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Jérôme Contamine[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | 56.73 | – | – | – | – |
| Lise Croteau[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Mark Cutifani[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Valérie Della Puppa Tibi[a] | TotalEnergies shares | – | – | – | – | – |
| Director until May 25, 2022 | Units in FCPE and other related financial instruments[b] | 13.89 | 153.56 | (19.54) | – | – |
| Romain Garcia-Ivaldi[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | 266.44 | 1,181.16 | (610.32) | – | – |
| Maria van der Hoeven[a] | TotalEnergies shares | 300 | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Glenn Hubbard[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Anne-Marie Idrac[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Emma de Jonge[a] | TotalEnergies shares | – | – | – | – | – |
| Director since May 25, 2022 | Units in FCPE and other related financial instruments[b] | 72.04 | 530.04 | (264.46) | – | – |
| Jean Lemierre[a] | TotalEnergies shares | – | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | – | – | – | – | – |
| Angel Pobo[a] | TotalEnergies shares | 200 | – | – | – | – |
| | Units in FCPE and other related financial instruments[b] | 153.96 | 148.27 | (83.78) | – | – |

(1) The individuals referred to in paragraph b) of Article L. 621-18-2 of the French Monetary and Financial Code include the members of the Executive Committee.

| 2022 | | Acquisition | Subscription | Transfer | Exchange | Exercise of options |
|---|---|---|---|---|---|---|
| Helle Kristoffersen[(a)] | TotalEnergies shares | 14,835 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 1,600.16 | 3,335.91 | (1,626.62) | – | – |
| Stéphane Michel[(a)(c)] | TotalEnergies shares | 9,890 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 1,643.09 | 8,905.45 | (7,474.08) | – | – |
| Thierry Pflimlin[(a)] | TotalEnergies shares | 11,374 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 1,161.45 | 4,343.54 | (3,279.53) | – | – |
| Bernard Pinatel[(a)] | TotalEnergies shares | 26,703 | – | (11,690) | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 2,250.56 | 10,563.12 | (6,266.64) | – | – |
| Jean-Pierre Sbraire[(a)] | TotalEnergies shares | 14,835 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 2,907.56 | 13,096.19 | (6,491.49) | – | – |
| Namita Shah[(a)] | TotalEnergies shares | 25,714 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 2,567.89 | 10,940.13 | (5,410.41) | – | – |
| Nicolas Terraz[(a)] | TotalEnergies shares | 8,407 | – | – | – | – |
| | Units in FCPE and other related financial instruments[(b)] | 1,624.98 | 6,835.32 | (3,410.41) | – | – |

(a) Including related parties within the meaning of the provisions of Article R. 621-43-1 of the French Monetary and Financial Code.
(b) FCPE primarily invested in TotalEnergies shares.
(c) Anne-Thérèse Michel, employee of the Company and a person related to Stéphane Michel, acquired 497 TotalEnergies shares and 1,379.88 FCPE shares in 2022.

## 4.2 Statement regarding corporate governance

For many years, TotalEnergies has taken an active approach to corporate governance and at its meeting on November 4, 2008, the Board of Directors decided to refer to the AFEP-MEDEF Code of Corporate Governance for publicly traded companies (available on the AFEP and MEDEF websites).

The Corporation follows all the recommendation made in the AFEP-MEDEF Code in its revised version dated December 2022 and reports on it in accordance with Article L. 22-10-10 of the French Commercial Code.

| RECOMMENDATION NOT FOLLOWED | EXPLANATION – PRACTICE FOLLOWED BY TotalEnergies |
|---|---|
| **None** | **Not applicable** |

# 4.3 Compensation for the administration and management bodies

## 4.3.1 Board members' compensation

### 4.3.1.1 BOARD MEMBERS' COMPENSATION POLICY

#### AGGREGATE AMOUNT OF DIRECTORS' COMPENSATION DUE TO THEIR DIRECTORSHIPS

In accordance with the provisions of Article L. 22-10-14 of the French Commercial Code, the conditions applicable to Board members' compensation are defined by the Board of Directors on the proposal of the Governance and Ethics Committee, under the conditions provided for by Article L. 22-10-8 of the French Commercial Code and within the limit of an annual fixed amount determined by the Annual Shareholders' Meeting.

The Annual Shareholders' Meeting held on May 29, 2020, set the maximum amount of the annual fixed amount to be allocated to board members for their activity as of 2020 at €1.75 million.

The cap of €1.75 million set by the Shareholders' Meeting held on May 29, 2020 had been exceeded during fiscal year 2022 due to the large number of meetings and the high attendance rate of the directors, which led to a reduction in the remuneration to be paid to them (4.4%).

In addition, the increase in the number of non-French directors, which is proposed (change from 5 to 7) will result in an increase in travel fees which are deducted from the overall cap of the directors' compensation.

The current average annual compensation of directors is at the top of compensation for listed companies under French law, but is lower than that of directors of other CAC40 companies such as Airbus, ArcellorMittal or Stellantis while the size and results of TotalEnergies can be compared to them.

Given these various elements, the Board of Directors has decided to propose to the Shareholders' Meeting on May 26, 2023 to increase the annual compensation package for directors from 1,750,000 euros to 1,950,000 euros (*i.e.*, an increase of 11% compared to the current amount). Such amount could then be reviewed every two to three years depending in particular on inflation.

The rules for allocating directors' compensation and the terms of payment defined by the Board remain unchanged.

#### RULES FOR ALLOCATING DIRECTORS' COMPENSATION DUE TO THEIR DIRECTORSHIPS

The allocation rules of the directors' compensation and their payment conditions defined by the Board at its meeting on July 26, 2017, and remain unchanged since. The compensation due to directors by virtue of their directorships are allocated according to a formula comprised of fixed compensation and variable compensation based on fixed amounts per meeting, which makes it possible to take into account each director's actual attendance at the meetings of the Board of Directors and its Committees, subject to the following conditions:

- a fixed annual portion of €20,000 per director[1];
- a fixed annual portion[1] of €30,000 for the Chairman of the Audit Committee[2];
- a fixed annual portion[1] of €25,000 for the Audit Committee members[2];
- a fixed annual portion[1] of €25,000 for the Chairman of the Governance and Ethics Committee and for the Chairman of the Compensation Committee[2];
- an additional fixed annual portion[1] of €30,000 (on top of the amounts above) for the Lead Independent Director;
- an amount of €7,500 per director for each Board meeting actually attended;
- an amount of €3,500 per director for each Governance and Ethics Committee, Compensation Committee or Strategy and CSR Committee meeting actually attended;
- an amount of €7,000 per director for each Audit Committee meeting actually attended;
- a premium of €4,000 in respect of each actual travel from a country outside France to attend a Board or Committee meeting.

The Chairman and Chief Executive Officer does not receive directors' compensation for his work on the Board and Committees of the Corporation.

The total amount paid to each director is determined after taking into consideration the director's actual presence at each Board of Directors' or Committee's meeting and, if appropriate, since the decision by the Board of Directors on February 9, 2012, after prorating the amount set for each director such that the overall amount paid remains within the maximum limit set by the Shareholders' Meeting. Directors' compensation for each fiscal year is paid following a decision by the Board of Directors, on the proposal of the Governance and Ethics Committee, at the beginning of the following fiscal year.

The director representing employee shareholders and the directors representing employees receive directors' compensation according to the same terms and conditions as any other director.

Moreover, there is no service contract between a director and the Corporation or any of its controlled companies that provides for the grant of benefits under such a contract.

(1) Calculated on a pro rata basis, in the event of change in the course of the year.
(2) Substituting the €20,000 fixed annual portion per director. In case of accumulation of the functions of director and/or Audit Committee member and/or Chairman of a Committee (Audit, Governance and Ethics, Compensation), the difference between the fixed annual portion per director and the fixed annual portion of the other functions is added.

### 4.3.1.2 COMPENSATION PAID TO DIRECTORS DURING FISCAL YEAR 2022 OR ALLOCATED DURING THE SAME FISCAL YEAR

At its meeting on February 7, 2023, the Board of Directors, on the proposal of the Governance and Ethics Committee, set the aggregate amount of compensation (formerly fees) allocated to board members due to their directorships in TotalEnergies SE, for fiscal year 2022.

This amount was determined by applying the principles presented in the directors' compensation policy (point 4.3.1.1 of this chapter), and set for each director, after taking into account his/her actual attendance to each meeting of the Board or of the Committees (refer to point 4.1.2.2 of this chapter – table of the directors' attendance at Board and Committees meetings).

Given the number of Board and Committee meetings held during fiscal year 2022, the amount of compensation determined for each director on the basis of the above allocation rules was subject to a pro rata in application of the Board of Directors' decision on February 9, 2012 in such a way that the total amount paid remains within the cap set by the Shareholders' Meeting on May 29, 2020 (*i.e.*, 1.75 million euros).

The director representing employee shareholders and the directors representing employees benefited from their compensation by virtue of their directorships in the same conditions and under the same basis as the other directors. Ms. Della Puppa Tibi and Mr. Pobo chose to pay, for the entire term of their directorship, all their directors' compensation to their respective trade union membership organizations. Ms. de Jonge and Mr. Garcia-Ivaldi chose to pay all their director's compensation to charities of their choices. During the past two years, the directors currently in office have not received any compensation or in-kind benefits from the Corporation or from its controlled companies other than those mentioned in the table below.

No exceptional compensation was allocated.

Ms. Valérie Della Puppa Tibi, director representing employee shareholders since May 29, 2019 until May 25, 2022, Ms. Emma de Jonge, director representing employee shareholders since May 25, 2022, Mr. Romain Garcia-Ivaldi, director representing employees since June 9, 2020, as well as Mr. Angel Pobo, director representing employees since October 14, 2020, benefit from the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), governed by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2022, this pension plan represented an expense accounted for TotalEnergies SE in favor of Ms. Della Puppa Tibi of €772, in favor of Ms. de Jonge of €1,182, in favor of Mr. Garcia-Ivaldi of €640 and in favor of Mr. Pobo of €756.

The table below presents the total compensation paid to directors during fiscal year 2022 or allocated for the same fiscal year.

TotalEnergies

## TABLE OF COMPENSATION ALLOCATED IN RESPECT OF DIRECTORSHIP AND OTHER COMPENSATION BY NON-EXECUTIVE DIRECTORS

**Table 3 – Position-recommendation – DOC-2021-02 (Appendix 2)**

| Gross (€) | | Amount allocated in respect of fiscal year 2021 | Amount paid during fiscal year 2021 | Amount allocated in respect of fiscal year 2022 | Amount paid during fiscal year 2022 |
|---|---|---|---|---|---|
| Patrick Pouyanné | Compensation by virtue of directorship | None | None | None | None |
| | Other compensation | (a) | (a) | (a) | (a) |
| Patrick Artus[b] | Compensation by virtue of directorship | 66,664 | 132,025 | n/a | 66,664 |
| | Other compensation | – | – | n/a | – |
| Jacques Aschenbroich[c] | Compensation by virtue of directorship | 59,890 | n/a | 99,904 | 59,890 |
| | Other compensation | – | – | – | – |
| Patricia Barbizet | Compensation by virtue of directorship | 153,473 | 119,193 | 162,046 | 153,473 |
| | Other compensation | – | – | – | – |
| Marie-Christine Coisne-Roquette | Compensation by virtue of directorship | 161,000 | 136,389 | 146,749 | 161,000 |
| | Other compensation | – | – | – | – |
| Jérôme Contamine | Compensation by virtue of directorship | 148,000 | 62,441 | 145,315 | 148,000 |
| | Other compensation | – | n/a | – | – |
| Lise Croteau | Compensation by virtue of directorship | 175,500 | 143,811 | 186,902 | 175,500 |
| | Other compensation | – | – | – | – |
| Mark Cutifani | Compensation by virtue of directorship | 110,000 | 90,137 | 130,975 | 110,000 |
| | Other compensation | – | – | – | – |
| Valérie Della Puppa Tibi[d] | Compensation by virtue of directorship[g] | 112,000 | 86,174 | 46,315 | 112,000 |
| | Other compensation | 71,944 | 71,944 | 83,624 | 83,624 |
| Romain Garcia-Ivaldi | Compensation by virtue of directorship[h] | 156,473 | 44,402 | 148,662 | 156,473 |
| | Other compensation | 57,664 | 57,664 | 67,476 | 67,476 |
| Maria van der Hoeven | Compensation by virtue of directorship | 198,473 | 159,811 | 191,683 | 198,473 |
| | Other compensation | – | – | – | – |
| Glenn Hubbard[c] | Compensation by virtue of directorship | 71,890 | n/a | 116,157 | 71,890 |
| | Other compensation | – | – | – | – |
| Anne-Marie Idrac | Compensation by virtue of directorship | 115,500 | 93,174 | 107,075 | 115,500 |
| | Other compensation | – | – | – | – |
| Emma de Jonge[e] | Compensation by virtue of directorship[h] | n/a | n/a | 57,414 | – |
| | Other compensation | n/a | n/a | 125,683 | 125,683 |
| Jean Lemierre | Compensation by virtue of directorship | 115,500 | 93,174 | 110,421 | 115,500 |
| | Other compensation | – | – | – | – |
| Angel Pobo | Compensation by virtue of directorship[g] | 101,500 | 22,322 | 100,382 | 101,500 |
| | Other compensation | 69,410 | 69,410 | 80,618 | 80,618 |
| Christine Renaud[f] | Compensation by virtue of directorship[g] | n/a | 48,697 | n/a | n/a |
| | Other compensation | n/a | n/a | n/a | n/a |
| Carlos Tavares[f] | Compensation by virtue of directorship | n/a | 26,697 | n/a | n/a |
| | Other compensation | – | – | n/a | n/a |
| **TOTAL** | | **1,944,881** | **1,457,465** | **2,107,401** | **2,103,264** |

(a) Refer to the summary tables presented in point 4.3.2 of this chapter.
(b) Director until May 28, 2021.
(c) Director since May 28, 2021.
(d) Director until May 25, 2022.
(e) Director since May 25, 2022.
(f) Director until May 29, 2020.
(g) Ms. Della Puppa Tibi, Ms Renaud, and Mr. Pobo chose to pay, for the entire term of their directorships as directors representing employees, all their directors' compensation to their respective trade union membership organizations.
(h) Ms. de Jonge and Mr. Garcia-Ivaldi chose to pay all their director's compensation to charities of their choices.

## 4.3.2 Chairman and Chief Executive Officer's compensation

**Letter of the Chairman of the Compensation Committee**

Dear Shareholders of TotalEnergies,

I have the honour of chairing the Compensation Committee, working alongside Marie-Christine Coisne-Roquette, Jacques Aschenbroich and Angel Pobo (as the employee representative).

On behalf of the Board of Directors and the Compensation Committee, I am pleased to present the report on the Company's Compensation Report for the year ended December 31, 2022.

In 2022, the Company continued with the consistency of delivery on its multi-energy strategy it has been following for several years. The Company managed to do well from its assets over the year as the environment provided favorable tailwinds as we delivered $36.2 billion adjusted net income and $20.5 billion IFRS net income (including nearly $15 billion in provisions related to Russia).

The Company maintained its investments in oil, to support its production base while still capturing new opportunities, with a focus on low-cost low-emission barrels, and maximized the utilization of its refining units in a context of high margins. In LNG and gas, the Company's strategy to become a more significant player paid off with 48 Mt of LNG sales from its high-quality global portfolio, particularly in terms of its strong position in Europe. In Electricity & Renewables, the Company managed to reach 17 GW of renewables gross installed capacity at year-end 2022, well on track to achieve its 35 GW objective by 2025 and 100 GW by 2030. Altogether, these solid results for 2022 have been achieved while meeting the Company's Scope 1+2 emission reduction target: the Company's management has demonstrated its commitment to deliver on the transition plan, increasing energy with less associated emissions.

Further details on the performance achieved in 2022 and the payouts under the incentive plans are provided in our report.

The Compensation Committee met 3 times during the year and reviewed market developments and the Company performance to assess whether current practices remain appropriately competitive, and with a sufficient focus on strengthening the link between pay and performance.

The Committee noted that following the adjustments made in 2022, the Resolution 13 at the Shareholders' Meeting on May 25, 2022 relating to the compensation policy of the Chairman and Chief Executive Officer received 79,90% of positive votes, much higher than the same resolution in 2021. In addition, the Compensation Committee reviewed the compensation policy with the greatest attention to the comments received from meetings with shareholders and proxy advisors throughout the year.

The Chairman and Chief Executive Officer's compensation has been, as every year, reviewed and compared with that of his peers and with market practice, in particular the national market. The results of this detailed analysis, which is included further in this document, reinforced the Board of Directors' conviction that the proposed compensation components and structure for 2023 are at the appropriate level. The Compensation Committee has therefore recommended to the Board of Directors it maintains the compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting on May 28, 2021.

The base salary remains unchanged compared to 2022 at €1,550,000. The number of performance shares attributed to the Chairman and CEO in 2023 is 110,000 following the decision, approved by the Shareholders' Meeting, of gradually increasing the attribution in the period of 2021-2023 to better align with the market levels and further reconcile the interests of the Chairman and Chief Executive Officer with the Company's shareholders.

Regarding the variable annual compensation, based on this review and feedback, the Compensation Committee recommended to the Board of Directors to make the following changes to the compensation policy, as reflected in the resolution 13 for which we will be seeking shareholder's support.

First, we changed the structure of the variable annual compensation which was allowing to compensate for outperformance on quantitative financial criteria. The feedback received from our shareholders and proxy advisors was that such a structure was supporting an incrementally more positive compensation effect between financial criteria in the event of exceptional performance. Although such a compensation between the criteria did not occur and had no impact on 2021 and 2022 compensation, as all financial criteria had almost reached the maximum, the Compensation Committee recommended to the Board of Directors to remove the outperformance mechanism to prevent any potential additions to compensation that may not be intended to occur on the basis of the results of the financial criteria taken separately.

At the same time, provided the Company's financial results in 2022, the Compensation Committee recommended to the Board to make the financial targets more stringent, and increase the upper boundaries, as explained in the section related to the annual variable portion of the Chairman and Chief Executive Officer's compensation.

Following the very strong improvement of the Company's balance sheet, the Committee also recommended the replacement of the gearing ratio criterion by a new criterion "Underlying Cash Flow Growth" corresponding to the Variation in Cash Flow From Operations (CFFO) excluding market prices effect. This criterion is a key metric to measure the profitable growth of the company. It is so central in the financial communication of the Company to investors as it underpins the growth of the ordinary dividend, since it measures the growth in cash generated by the Company year-on-year, excluding the effect of market prices, i.e. the underlying cash flow growth.

Our shareholders also asked us to provide further clarification for exceptional circumstances under which the Board of Directors could adjust the Chairman and Chief Executive Officer's variable compensation. The Compensation Committee further reviewed the relevance of having such a provision in the policy and decided to maintain this prudence consideration, while enhancing the transparency of the disclosure and providing some examples of such circumstances. As a matter of fact, that provision allowed the Board of Directors to reduce the payout on the fatality criteria as the anticipated rate of achievement did not adequately reflect the number of deaths of subcontractors in 2022. This criterion has been revised in the 2023 remuneration policy as set out in the report, with retroactive application for the 2022 remuneration justified in the particular case.

To further enhance the transparency of our disclosures and provide response to comments received during our shareholder's outreach, the Board of Directors upon recommendation from the Compensation Committee decided to further extend the scope of the CEO pay ratio to ensure taking into account the compensation of employees' representing above the 80% of the salary mass in France, a threshold which is in line with the AFEP recommendation.

In terms of policy changes following the recommendation of our proxy advisors, we introduced a claw back mechanism in the variable compensation of the Company Executive Officers without waiting for the recently adopted Securities and Exchange Commission rule to take effect.

Finally, based on shareholders feedback, as well as the review of the market practices, the Compensation Committee recommended to the Board to review the stock ownership policy, and increase our Chairman and Chief Executive Officer's as well as Executive Committee stock ownership requirement from 2 years to 5 years for the Chairman and Chief Executive Officer's and 4 years for the Executive Committee. This enhanced holding requirement will be in addition to the current requirement for the Chairman and Chief Executive Officer to retain 50% of the shares from performance shares plans until the end of his term. We strongly believe that this best-in-class policy will contribute to further align our executive compensation and shareholder interests in creating long-term value.

On behalf of the Compensation Committee, I would like to thank you for your support and feedback, which we will continue to seek as we review and refine our compensation practices to ensure that they remain aligned with the interests of our shareholders and fully compliant with all legal and regulatory requirements.

**Mark Cutifani**

**Chairman of the Compensation Committee**

The Board of Directors pays the greatest importance to ensuring that the general principles governing the compensation of executive directors, detailed in point 4.3.2.2 of this chapter, lead to a measured and fair compensation, depending on the results obtained, the responsibility assumed and the market.

The general principles of the compensation policy of the executive directors are based on:

- the compensation of the performance
- the alignment with the interest of shareholders
- the competitiveness compared to a reference group of peers and industrial companies of comparable size.

### Key points of the 2022 performance and changes in the compensation of the Chairman and Chief Executive Officer

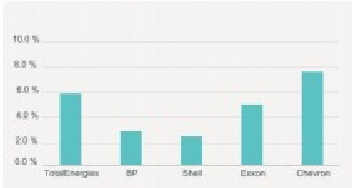
| | TSR* (Total Shareholder Return) | Return on equity | Gearing ratio, (excluding lease commitments) | Pre-dividend organic cash breakeven | Return on average capital employed (ROACE), comparative | Reduction of GHG emissions from operated facilities (Scope 1+2)[1] |
|---|---|---|---|---|---|---|
| **2022** | **33.4%** | **32.5% (+15.6 pts)** | **7.0%** | **\$23.2/b** | **TotalEnergies: 28.2%**<br>**Peers**: 23.4%** | **40 Mt $Co_2e$** |
| 2021 | +25.3% | 16.9% | 15.3% | \$22.9/b | TotalEnergies: 13.9%<br>Peers**: 10.7% | 37 Mt $CO_2e$ |

* The TSR is calculated from the ADR (New York) with the dividend reinvested at year-end.
** Panel average (ExxonMobil, Shell, BP and Chevron).

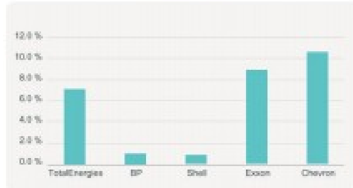
(1) Excluding COVID-19 effect in 2021.

Beyond the strong growth in the 2022 results, TotalEnergies' TSR (Total Shareholder Return) shows a sustained performance.

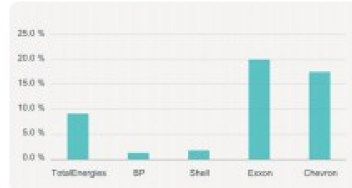
**10-year TSR**




**5-year TSR**

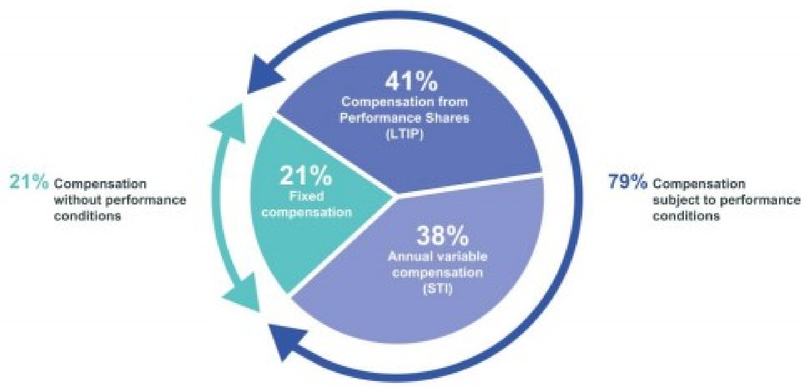



**3-year TSR**




## STRUCTURE OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER'S TOTAL COMPENSATION (EXCLUDING BENEFITS)

**More than 79% of the compensation is subject to performance conditions**




**Annual variable compensation (STI) 2022 in % of the base salary**

- HSE: 26.25%
- Financial parameters: 110%
- Personal contribution: 40%

**Compensation Performance shares (LTIP) 2022 plan**

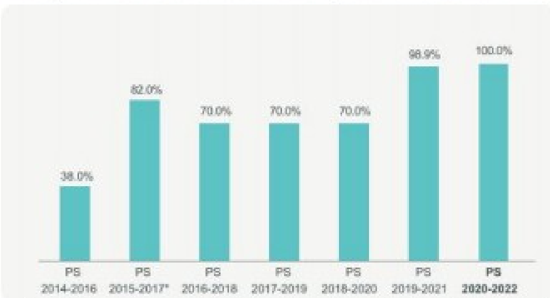
- TSR vs. peers: 25%
- Annual variation in net cash flow per share vs. peers: 25%
- Pre-dividend organic cash breakeven: 20%
- GHG Scope 1+2: 15%
- GHG Scope 3[1] Europe: 15%

(1) GHG Protocol - Category 11.

#### A compensation aligned with the shareholders' interest

**Total "cash" compensation of the Chairman and Chief Executive Officer & TSR (Total Shareholder Return)**


**History of the rate of achievement of performance criteria for performance share plans**




* Note: As the performance criteria differ between the grants made to the executive director and those made to other beneficiaries, the respective achievement rates are 81% and 82%.

| | 2018 Plan | 2019 Plan | 2020 Plan |
|---|---|---|---|
| **TSR** | Achievement rate: 86.7% | Achievement rate: 100% | Achievement rate: 100% |
| **Annual variation of the net cash flow per share** | Achievement rate: 53.3% | Achievement rate: 96.7% | Achievement rate: 100% |
| **Pre-dividend organic cash breakeven** | n/a | Achievement rate: 100% | Achievement rate: 100% |
| **Change in the GHG from operated facilities (Scope 1+2)** | n/a | n/a | Achievement rate: 100% |
| **Achievement rate of the performance shares plan** | 70.0% | 98.9% | 100.00% |
| **Performance shares acquired at the end of the acquisition period by the Chairman and CEO** | 72,000 x 70% = 50,400 | 72,000 x 98.9% = 71,208 | 72,000 x 100% = 72,000 |

### A compensation aligned with market practices and consistent with the two reference panels

#### Comparison groups

The Compensation Committee examines annually the relevance of the two panels of companies selected. These two panels allow us to compare our compensation practices with our peers in the energy sector, but also with companies in our employment pool that are leaders in their markets, in order to offer a competitive compensation program aimed at attracting and retaining the talents of today and tomorrow that are necessary for the development of our Company.

These two reference panels include French, European or American companies, selected from among groups similar in terms of:

- size (sales, capitalization);
- complexity and activities (energy sector);
- internalization of activities;
- and competitors in terms of recruiting talent on an international scale.

#### French comparison panel made up of CAC40 companies

| | | | | |
|---|---|---|---|---|
| Airbus | Dassault Systèmes | Legrand | Renault | Stellantis |
| Air Liquide | Engie | L'Oreal | Safran | ST Microelectronics |
| Alstom | EssilorLuxottica | LVMH | Saint Gobain | Thalès |
| Bouygues | Hermès International | Michelin | Sanofi | Véolia |
| Danone | Kering | Pernod Ricard | Schneider Electric | Vinci |

ArcellorMittal was not included due to a change of CEO during the year 2021.

#### International comparison panel

| | | | |
|---|---|---|---|
| Air Liquide | ENEL | Marathon Petroleum | Schlumberger |
| BASF | Engie | Mercedes-Benz Group | Siemens |
| Centrica | ENI | Philips 66 | Stellantis |
| BP | ExxonMobil | Repsol | TechnipFMC |
| Chevron | General Electric | Shell | Valero Energy |
| E.ON | Iberdrola | RWE | Volkswagen |

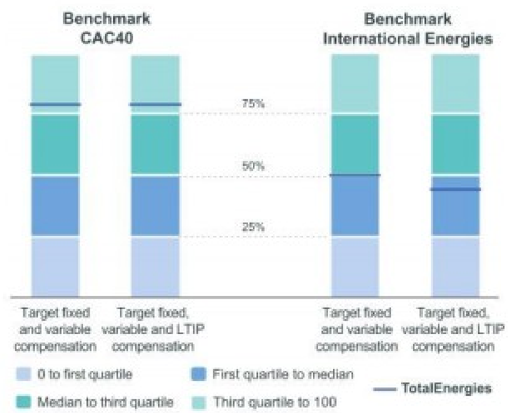
#### Positioning of the benchmarks

The Consultant (Mercer firm) assesses the compensation of the executive director by reference to the two above-mentioned reference panels[(1)].

Compared to the CAC40 panel, Mr. Pouyanné's compensation ranks slightly above the third quartile in total "cash" compensation or in total compensation including performance shares.

Compared to the international "Energies" panel, Mr. Pouyanné's compensation ranked at the median for his total "cash" compensation and between the first quartile and the median for the total compensation including performance shares.

Considering TotalEnergies' performances at the top of CAC40 companies, the Compensation Committee considers the positioning to be appropriate, somewhat out of step with the international benchmark regarding LTIP.




(1) Methodological note: In order to compare our practice for short-term compensation practice with market practice, Mercer has retained a target bonus for the Chairman and Chief Executive Officer equal to 2/3 of the maximum bonus (average ratio observed between target and maximum bonus for the market). The performance shares (LTIP) were valued on the basis of the IFRS expense recognized for the shares granted in 2022.

### Other components of the compensation policy

The compensation policy of the Chairman and Chief Executive Officer is decided by the Board of Directors, consistent with the AFEP-MEDEF's recommendations and on the proposal of the Compensation Committee and takes account of the comments of investors and proxy advisors.

The table below shows what the compensation policy of the Chairman and Chief Executive Officer provides, does not provide and takes into account from the advice of stakeholders:

| What TotalEnergies does | What TotalEnergies does not do | Advice of the stakeholders that TotalEnergies takes into account |
|---|---|---|
| ✓ A strong emphasis on variable compensation (approximately 70%-75% of total compensation) | ✗ No accumulation of an employment contract and a directorship | ✓ From 2022, taking into account for the calculation of the Chairman and CEO compensation ratios, of a population of employees in France representing more than 80% of the total French payroll in accordance with the AFEP recommendations |
| ✓ A significant part corresponding to non-financial targets thus representing 39% of the variable compensation | ✗ No guaranteed variable compensation components | ✓ New rule in 2022 for the obligation to hold TotalEnergies' shares: 5 years of base compensation for the Chairman and CEO and 4 years for the members of the Executive Committee within a maximum period of 5 years from taking office |
| ✓ Taking into account for the objectives relating to the annual variable compensation and the performance share plan of financial criteria measured on a peer group in a "pay for performance" logic | ✗ No upholding for the executive director of vesting rights to performance shares in case of dismissal or termination of gross negligence or willful misconduct | ✓ Deletion as of 2023 of the over-performance for each financial criterion of the annual variable portion of the executive director.<br>Some proxy advisors had underlined that the taking into account of the potential over-performance for each of the 4 financial criteria with an overall cap at 110% of the financial criteria would allow an offsetting between criteria |
| ✓ The granting of performance shares to the executive director is part of a broad plan of more than 12,000 employers (12% of the workforce of the Company) | | ✓ Clarification for extraordinary circumstances allowing the Board of Directors to adjust the variable compensation of the executive director |
| ✓ Golden hellos capped to the value of opportunities lost in the previous employer | | |

## 4.3.2.1 COMPENSATION OF MR. PATRICK POUYANNÉ FOR FISCAL YEAR 2022

At its meeting on February 7, 2023, the Board of Directors set, on the proposal of the Compensation Committee, the Chairman and Chief Executive Officer's compensation in respect of fiscal year 2022, by applying the principles and criteria set in the compensation policy of the Chairman and Chief Executive Officer for fiscal year 2022 submitted by the Board of Directors to the Ordinary Shareholders' Meeting on May 25, 2022, and approved by the latter at 79.90% (resolution 13).

In accordance with Article L. 22-10-9 of the French Commercial Code, the information presented below reports on the total compensation and benefits of all kinds, paid to Mr. Patrick Pouyanné by virtue of his mandate as Chairman and Chief Executive Officer of TotalEnergies SE for fiscal year 2022 or allocated by virtue of this mandate in respect of the same fiscal year[1], as well as all the other information provided for in this Article L. 22-10-9.

It is reminded that the payment to the Chairman and Chief Executive Officer of the annual variable component for fiscal year 2022 is conditional upon the approval of the Ordinary Shareholders' Meeting on May 26, 2023, of the fixed, variable and extraordinary components of the total compensation and the benefits of all kinds paid during fiscal year 2022 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

The Ordinary Shareholders' Meeting to be held on May 26, 2023, will be convened to approve the total compensation and the benefits of all kinds paid during fiscal year 2022 or attributed to the Chairman and Chief Executive Officer for the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

(1) Including attributions in the form of stock, securities or rights giving access to the company's share capital or rights to the attribution of securities of the Corporation or of the companies mentioned in Articles L. 228-13 and L. 228-93 of the French Commercial Code.

## TABLE SUMMARIZING THE COMPENSATION, OPTIONS AND SHARES ALLOCATED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

### SUMMARY OF THE COMPENSATION TO THE EXECUTIVE DIRECTOR

#### +9.6% INCREASE ON THE ALLOCATED COMPENSATION IN RESPECT FOR THE FISCAL YEAR 2022

The +9.6% increase of the compensation allocated to the Chairman and Chief Executive Officer in 2022 is linked to the increase in fixed compensation from €1,400,000 to €1,550,000 as of January 1, 2022 and to its impact on the variable compensation. It should be recalled that this increase decision was taken by the Board of Directors in March 2021 and validated by the Shareholders' Meeting on May 28, 2021, taking into account the fact that the base salary had not been reviewed for 2016. This 9.6% increase is equivalent to the average increase that benefits to the managers in the common social framework ("Socle social commun") (+9.8). As a reminder, the base compensation increase corresponds for the Chairman and Chief Executive Officer to an annual increase of its base compensation since 2016 of approximately 1.7%, to be compared to the average annual 2.38% increase budget of employees of the "Socle social commun" "approximately 15,000 employees in France) over the same period of time.

**Table 2 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)**

| | Fiscal year 2021 | | Fiscal year 2022 | |
|---|---|---|---|---|
| *(€)* | Amount allocated for the fiscal year | Amount paid during the fiscal year[(a)] | Amount allocated for the fiscal year | Amount paid during the fiscal year[(a)] |
| **Patrick Pouyanné** | | | | |
| *Chairman and Chief Executive Officer* | | | | |
| Fixed compensation | 1,400,000 | 1,400,000 | 1,550,000[(b)] | 1,550,000[(b)] |
| Annual variable compensation | 2,506,000 | 1,972,740 | 2,731,875 | 2,506,000 |
| Multi-year variable compensation | – | – | – | – |
| Extraordinary compensation | – | – | – | – |
| Compensation due to his directorship as a director | – | – | – | – |
| In-kind benefits[(c)] | 65,329 | 65,329 | 71,604 | 71,604 |
| **TOTAL** | **3,971,329** | **3,438,069** | **4,353,479** | **4,127,604** |
| | | | **+9.6%** | |

(a) Variable portion paid for the prior fiscal year.
(b) The annual base salary (fixed compensation) of Mr. Pouyannée as Chairman and Chief Executive Officer was set at €1,550,000 in accordance with the compensation policy voted by the Shareholders' Meeting on May 25, 2022.
(c) Company car and life insurance and health expense reimbursement plans paid for by the Corporation.

#### +11.1% INCREASE ON THE NUMBER OF PERFORMANCE SHARES (from 90,000 to 100,000)

The 11.1% increase in the number of performance shares allocated to the Chairman and Chief Executive Officer in 2022 follows the decision validated by the Shareholders' Meeting on May 28, 2021 to increase the number of performance shares to be allocated to the Chairman and Chief Executive Officer during fiscal years 2021, 2022 and 2023 to respectively 90,000, 100,000 and 110,000 shares to be more in line with the levels practiced by the markets and to increase the alignment of interests between the Chairman and Chief Executive Officer and the shareholders of the Company.

**Table of allocated compensation in constant IFRS valuation[(1)]**

| *(in €, except the number of shares)* | Exercice 2021 | Exercice 2022 | Variation |
|---|---|---|---|
| **Patrick Pouyanné** | | | |
| *Chairman and Chief Executive Officer* | | | |
| Compensation allocated in respect of the fiscal year (detailed in table 2) | 3,971,329 | 4,353,479 | +9.6% |
| Number of performance shares granted during the financial year | 90,000 | 100,000 | +11.1% |
| *Valuation of the performance shares allocated with constant IFRS value* | *1,972,800* | *2,192,000* | *+11.1%* |
| **COMPENSATION ALLOCATED IN RESPECT FOR THE FINANCIAL YEAR WITH CONSTANT IFRS VALUATION** | **5,944,129** | **6,545,479** | **+10.1%** |

The evolution of the compensation presented in the table below includes the evolution of the TotalEnergies share price taken into account for the valuation of the performance shares from €27.4 to €37.22 between 2021 and 2022, which gives a value of the granted shares higher, whereas, at constant value, the evolution of the compensation is 10.1% as shown in the table above. Performance shares valuations correspond to a valuation made in accordance with IFRS 2 standard (refer to Note 9 of the Consolidated Financial Statements) and not to a compensation actually received during the financial year. The benefit of the performance shares is subject to the achievement of performance conditions assessed over a three-year period.

(1) By retaining the fair value of the share in 2021, *i.e.*, €27.40.

**Table 1 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)**

| *(€, except the number of shares)* | Fiscal year 2021 | Fiscal year 2022 |
|---|---|---|
| **Patrick Pouyanné** | | |
| *Chairman and Chief Executive Officer* | | |
| Compensation allocated in respect of the fiscal year (detailed in table 2) | 3,971,329 | 4,353,479 |
| Valuation of multi-year variable compensation allocated during the fiscal year | – | – |
| Valuation of stock options granted during the fiscal year (detailed in table 4) | – | – |
| Valuation of performance shares granted during the financial year (detailed in table 6) | 1,972,800 | 2,977,600 |
| *Number of performance shares granted during the financial year* | 90,000 | 100,000 |
| Valuation of the other long-term compensation plans | – | – |
| **TOTAL** | **5,944,129** | **7,331,079** |

Note: The valuations of the options and performance shares correspond to a valuation performed in accordance with IFRS 2 (refer to Note 9 to the Consolidated Financial Statements) and not to any compensation actually received during the fiscal year. Entitlement to performance shares is subject to the fulfillment of performance conditions assessed over a three-year period.

## SUMMARY OF THE MULTI-ANNUAL VARIABLE COMPENSATION PAID TO THE EXECUTIVE OFFICER

**Table 10 – AFEP-MEDEF Code**

| | |
|---|---|
| Patrick Pouyanné | |
| *Chairman and Chief Executive Officer* | None |

**Table 11 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)**

| Executive directors | Employment contract | Supplementary pension plan | Payments or benefits due or likely to be due upon termination or change in duties | Benefits related to a non-compete agreement |
|---|---|---|---|---|
| Patrick Pouyanné<br>*Chairman and Chief Executive Officer*<br>Start of term of office: December 19, 2015<br>End of term of office: 2024 Shareholders' Meeting to approve the financial statements for fiscal year 2023 | NO | YES<br>Internal supplementary defined benefit pension plan[(a)] and defined contribution pension plan | YES[(a)]<br>Severance benefit and retirement benefit | NO |

(a) Payment subject to performance conditions. Details of these commitments are provided below. The retirement benefit cannot be combined with the severance benefit.

## SUMMARY TABLE OF THE COMPONENTS OF THE COMPENSATION FOR MR. PATRICK POUYANNÉ, CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF TotalEnergies SE, PAID DURING FISCAL YEAR 2022 OR ALLOCATED IN RESPECT OF THE SAME FISCAL YEAR

| Components of compensation submitted for vote | Amount paid during fiscal year 2022 | Amount allocated in respect of fiscal year 2022 or accounting valuation | Presentation |
|---|---|---|---|
| **Fixed compensation** | €1,550,000 | €1,550,000 (amount paid in 2022) | Mr. Pouyanné's annual fixed compensation in his capacity as Chairman and Chief Executive Officer has been set by the Board of Directors at €1,550,000 (base salary) for fiscal year 2022.<br>This fixed compensation represents 36% of the total cash compensation allocated in respect of fiscal year 2022 (*i.e.*, excluding performance shares and benefit in kind). |
| **Annual variable compensation** | €2,506,000 (amount allocated in respect of fiscal year 2021 and paid in 2022) | €2,731,875 (amount allocated in respect of fiscal year 2022 and to be paid in 2023) | The variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2022 by virtue of his duties as Chairman and Chief Executive Officer has been set at €2,731,875. This corresponds to 176.25% (of a maximum of 180%) of his base salary, taking into account the results of the economic parameters and the evaluation of the personal contribution of the Chairman and Chief Executive Officer.<br>This annual variable compensation corresponds to 64% of the total cash compensation allocated in respect of fiscal year 2022 (*i.e.*, excluding performance shares and benefit in kind). |
| **Multi-year variable compensation** | n/a | n/a | The Board of Directors has not granted any multi-year or deferred variable compensation. |
| **Compensation by virtue of directorship** | n/a | n/a | Mr. Pouyanné does not receive compensation due to his directorship in TotalEnergies SE. Mr. Pouyanné does not receive compensation from companies TotalEnergies SE controls. |
| **Stock options (SO), performance shares (PS) or all other forms of long-term compensation** | | SO: none<br>PS: €2,977,600[1] (accounting valuation) | On March 16, 2022, Mr. Pouyanné was granted 100,000 existing shares of the Corporation pursuant to the authorization of the Corporation's Extraordinary Shareholders' Meeting of May 28, 2021 (sixteenth resolution) subject to the conditions set out below. These shares were granted under a broader share plan approved by the Board of Directors on March 16, 2022, in favor of more than 11,700 beneficiaries. |
| **Payment for assuming a position** | n/a | n/a | Mr. Pouyanné was not granted any payment for assuming his position. |
| **In-kind benefits** | – | €71,604 (accounting valuation) | The Chairman and Chief Executive Officer is entitled to a company vehicle. He is covered by the following life insurance plans provided by various life insurance companies:<br>– An "incapacity, disability, death" insurance policy applicable to all employees, partly paid for by the Corporation;<br>– a second "disability and life insurance" plan, fully paid by the Corporation, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS.<br>The Chairman and Chief Executive Officer also benefits from the health expense reimbursement plan applicable to all employees. |
| **Severance benefit** | None | None | The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office.<br>The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy and subject to performance conditions. |
| **Retirement benefit** | None | None | The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Company under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement.<br>Entitlement to retirement benefits is subject to conditions related to the performance of the beneficiary.<br>The retirement benefit cannot be combined with the severance benefit described above. |

(1) In accordance with the accounting of the performance shares for fiscal year 2022 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the vesting period, this amount corresponds to the 100,000 shares granted in 2022, valued on the basis of a unit fair value of €37.22. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, *i.e.*, on March 16, 2022, on the basis of the closing price of the TotalEnergies share on that date of €45.54.

| Components of compensation submitted for vote | Amount paid during fiscal year 2022 | Amount allocated in respect of fiscal year 2022 or accounting valuation | Presentation |
|---|---|---|---|
| **Non-compete compensation** | | n/a | Mr. Pouyanné has not received any non-compete compensation. |
| **Supplementary pension plan** | | None | The Chairman and Chief Executive Officer benefits from the legal AGIRC-ARRCO scheme, as well as from the internal supplementary defined contribution scheme applicable to all employees of TotalEnergies SE, referred to in Article L. 242-1 of the French Social Security Code, and from the supplementary defined benefit pension scheme, referred to in Article L. 137-11 of the French Social Security Code. |
| **Approval by the Shareholders' Meeting** | | | The commitments made to the Chairman and Chief Executive Officer regarding the pension and insurance plans, the retirement benefit and the severance benefit (in the event of forced departure related to a change of control or strategy) were authorized by the Board of Directors on March 14, 2018, and approved by the Shareholders' Meeting on June 1, 2018. |

### A) Details of the assessment of the performance criteria for the determination of the annual variable compensation for fiscal year 2022

For the setting of the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2022 due to his duties as Chairman and Chief Executive Officer, the Board of Directors reviewed, at its meeting on February 7, 2023, the level of achievement of the economic parameters based on the quantifiable targets set by the Board of Directors at its meeting on March 16, 2022. The Board of Directors also assessed the Chairman and Chief Executive Officer's personal contribution on the basis of the target criteria set during its meeting on March 16, 2022, to qualitatively assess his management.

The payment to the Chairman and Chief Executive Officer of the annual variable component for fiscal year 2022 is conditional upon the approval of the Ordinary Shareholders' Meeting on May 26, 2023, of the fixed, variable and extraordinary components of the total compensation and the benefits of all kinds paid during fiscal year 2022 to the Chairman and Chief Executive Officer or allocated to the latter during the same fiscal year, in accordance with Article L. 22-10-34 of the French Commercial Code.

It is reminded that the variable portion of Mr. Pouyanné's compensation allocated in respect of fiscal year 2021 by virtue of his duties as Chairman and Chief Executive Officer and paid in 2022 (after the approval by the Ordinary Shareholders' Meeting on May 25, 2022, of the fixed, variable and extraordinary components of the total compensation and the benefit-in-kind paid in respect of fiscal year 2021) was set at €2,506,000 corresponding to 179% (of a maximum of 180%) of his fixed annual compensation based on results of the economic parameters and the evaluation of his personal contribution.

Annual variable compensation allocated in respect of fiscal year 2022 (expressed as a percentage of the base salary)

| | % targets +over-performance | | % allocated | |
|---|---|---|---|---|
| **Summary of the quantifiable targets** | | | | |
| **Safety and greenhouse gas (GHG) emissions** | | **30%** | | **26.25%** |
| a) Safety | | 20% | | 16,25% |
| – TRIR | 6% | | *6.00%* | |
| – FIR, by comparison[1] | 6% | | *2.25%* | |
| – Evolution of the number of Tier 1 + Tier 2 incidents | *8%* | | *8.00%* | |
| b) Evolution of GHG emissions (Scope 1+2) | | 10% | | 10% |
| **Financial parameters** | | | | |
| – Return on equity (RoE) | 30%+10%[1] | | | 40% |
| – Gearing ratio (excluding lease commitments) | 30%+10%[1] | | | 40% |
| – Pre-dividend organic cash breakeven | 30%+10%[1] | | | 36.8% |
| – Return on average capital employed (ROACE), comparative | 20%+10%[1] | | | 30% |
| Maximum percentage that may be allocated in respect of financial parameters | | **110%** | | **110%** |
| **Maximum percentage that may be allocated in respect of economic quantifiable parameters** | | **140%** | | **136.25%** |
| **Personal contribution (qualitative criteria)** | | | | |
| – Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity | | 15% | | 15% |
| – Profitable growth in renewables and electricity | | 10% | | 10% |
| – Corporate Social Responsibility (CSR) performance, notably the integration of climate issues in the Company's Strategy, the Company's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity | | 15% | | 15% |
| **Maximum percentage that may be allocated in respect of the personal contribution** | | **40%** | | **40%** |
| **TOTAL** | | **180%** | | **176.25%** |

(1) 10% for stretch overperformance.

The results of financial parameters leads to an over-performance resulting in an achievement rate of 146.8%, which has been reduced to 110% by the capping rule in the compensation policy approved by the Shareholders' Meeting on May 25, 2022.

### Safety and Greenhouse gas emissions criteria

The Board of Directors assessed achievement of the targets set for the Safety and Greenhouse gas emissions criteria as follows:

The **safety evolution** was assessed for a maximum of 20% of the base salary through (i) the achievement of the annual TRIR (Total Recordable Incident Rate) target, (ii) the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate) compared to those of the four large competitor oil companies (ExxonMobil, Shell, BP and Chevron), as well as (iii) through change in the Tier 1 + Tier 2 indicator[2]. These three sub-criteria were assessed based on the elements set out in the 2022 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting on May 25, 2022.

Concerning the 2022 fiscal year, the following elements were noted:

- the **TRIR** was 0.67, which is below the target of 0.7. The result of this criterion was thus set at its maximum of 6%;
- the number of **Tier 1 + Tier 2** incidents was 48, which is below the level of 70 allowing to achieve the target. The result of this criterion was set at its maximum of 8%;
- at 0.765, the **FIR** is ranked between the maximum FIR of the panel of majors *i.e.*, 1.74 and the minimum FIR of the panel of majors *i.e.*, 0.44. The result of this criterion would thus have been set at 75% of its maximum of 6% *i.e.*, 4.5%;

However, with the three accidental deaths of subcontractors in 2022, the Board of Directors noted that the Chairman and Chief Executive Officer considered that the achievement rate of the FIR criterion (HSE) did not reflect adequately the number of deaths too high in his opinion in 2022.

On the proposal of the Compensation Committee, the Board of Directors decided at its meeting on February 7, 2023 to revise the FIR criterion as follows and to apply it as from 2022:

- up to 50%: the maximum weighting of this sub-criterion is reached if there is no accidental death and is zero from at least one accidental death,
- up to 50%: the maximum weighting of this sub-criterion is reached if TotalEnergies' FIR is the best of the panel of majors and will be zero if the FIR is the worst of the panel. The weighting of the criterion is calculated based on TotalEnergies' FIR by linear interpolation between these two points of reference

This change leads to an achievement rate of the FIR for 2022 of 2.25% compared to 4.5% with the method initially planned.

The result of the criterion related to the safety evolution was thus set at 16.25%.

The **evolution of the greenhouse gas (GHG) emissions on operated facilities** was assessed for a maximum weighting of 10% of the base salary, through the achievement of a GHG (Scope 1+2) reduction emission target from 46 Mt $CO_2e$ in 2015 to 40 Mt $CO_2e$ in 2025, corresponding to a reduction of 600 kt $CO_2e$/y, *i.e.*, a target of 41.8 Mt $CO_2e$ for 2022.

This criterion was assessed based on the elements set out in the 2022 compensation policy for the Chairman and Chief Executive Officer, as approved by the Shareholders' Meeting on May 25, 2022.

(1) The Board of Directors decided on February 7, 2023 to revise the FIR criterion by applying retroactively for 2022 the definition of the criterion as proposed in the 2023 compensation policy.
(2) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

The Board noted that the GHG Scope 1+2 emissions from operated facilities amounted to 40 Mt $CO_2e$ in 2022. They are up compared to 2021 because of the exceptional operating rate of gas power plants in Europe but remain below the target for 2022. The result of this criterion was thus set at its maximum of 10%.

**Financial parameters**

- **The return on equity (ROE)**, as published by the Company on the basis of its balance sheet and consolidated statement of income was assessed for a maximum of 30% of the base salary, based on the elements set out in the 2022 compensation policy of the Chairman and Chief Executive Officer.

  The Board noted that the ROE for fiscal year 2022 was 32.5%, *i.e.*, above the 18% target for the over-performance. The result of this criterion was thus set at its maximum, *i.e.*, 40%.

- **The gearing ratio** (excluding lease commitments) was assessed for a maximum of 30% of the base salary, based on the elements set out in the compensation policy of the Chairman and Chief Executive Officer for 2022.

  The Board thus noted that the gearing ratio (excluding lease commitments) at year-end 2022 was 7.0%, *i.e.*, above the target of the over-performance (below 15%). The result of this criterion was thus set at its maximum, *i.e.*, 40%.

- **The pre-dividend organic cash breakeven criterion** was assessed at a maximum of 30% of the base salary according to components set in the compensation policy of the Chairman and Chief Executive Officer for 2022.

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes[1] (MBA) covers the organic investments[2]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.

  Regarding fiscal year 2022, the Board noted that the pre-dividend organic cash breakeven set at $23,2/b, *i.e.*, at a level resulting in a 6.8% over-performance. The result of this criterion was thus set at 36.8%.

- **The return on average capital employed (ROACE) criterion, by comparison,** was assessed as a maximum weighting of 20% of the base salary. TotalEnergies' ROACE, as published from the consolidated balance sheet and the income statement, was compared to the ROACE average of each of the four peers (ExxonMobil, Shell, BP and Chevron). The ROACE is equal to the net adjusted operating income[3] divided by the average of the capital employed (at replacement costs, net of deferred income tax and non-current liabilities) of the start and end of the fiscal year.

  This criterion was assessed based on the elements set out in the 2022 compensation policy for the Chairman and Chief Executive Officer.

  For fiscal year 2022, the Board noted that TotalEnergies' ROACE is 4.8% above the average of the ROACEs of the four peers, *i.e.,* above the target of the over-performance (more than 4%). The result of this criterion was thus set at its maximum, *i.e.*, 30%.

Considering an extraordinary performance, and as the maximum amount for the abovementioned financial criteria cannot exceed 110% of the base salary, the result of the financial criteria was capped at 110% of the base salary.

**Personal contribution**

The personal contribution of the Chairman and Chief Executive Officer was assessed at its maximum of 40% of the base salary based on the three criteria set in the compensation policy of the Chairman and Chief Executive Officer for 2022:

- Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity, for up to 15%;
- Profitable growth in renewables and electricity, for up to 10%;
- Corporate Social Responsibility (CSR) performance, including the integration of climate issues in the TotalEnergies strategy, the Company's reputation in the domain of Corporate Social Responsibility, as well as the policy concerning all aspects of diversity, for up to 15%.

The Board of Directors set the results of each of these criteria at their maximum, because of the following components which were observed during the past fiscal year:

- **Criterion 1: Steering of the Corporation's strategy of moving towards carbon neutrality,** in line with the 2020/2030 targets, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity;

  During fiscal year 2022, the Board observed that the Chairman and Chief Executive Officer achieved the following:

- TotalEnergies is considered as the oil & gas major the most advanced in low-carbon energies, being in particular the one dedicating the most important CAPEX budgets and in growth and demonstrating an ability to implement original M&A transactions (Clearway by exchange of shares with SunPower, Cas dos Ventos by private transaction) that are made possible due to the personal involvement of the Chairman and Chief Executive Officer. In December 2022, Bernstein published an analysis pointing out that TotalEnergies is ahead of BP and Shell regarding portfolio of renewable power generation projects.
- TotalEnergies is the only oil & gas company whose annual progress in GW is comparable to that of the most ambitious utilities such as ENEL (+ 6 to 7 GW); it is to be noted that Iberdrola lowered its annual target from + 6 GW to + 4 GW in November 2022.
  - Acceleration of the transformation strategy with net investments of around $16 billion pour 2022, dont $4 billion in decarbonized energies. 2 major equity investments:
    - Acquisition of 50% of Clearway Energy Group, major player in the United States, with 7.7 GW of solar and wind assets in operation as well as a portfolio of 25 GW in development
    - Creation of a JV with Casa dos Ventos, Brazil's leading renewable energy developer, (TTE 34%/CDV 66%), to develop, build and operate a renewable portfolio including 4.5 GW of onshore wind and 1.6 GW of solar projects
- Continuation of the LNG growth strategy, energy for transition, despite the decision to no longer develop new projects in Russia:
    - Acquisition of 6.25% in the LNG project North Field East in Qatar, with a capacity of 32 Mt/y and of 9.375% in the LNG project North Field South of 16 Mt/y

(1) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost, excluding the impact of contracts recognized at fair value in the iGRP segment and including capital gains on the disposal of renewables projects (as of the first quarter of 2020).
(2) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(3) Adjustment items include special items, the inventory effect and the impact for change in fair value.

- Expansion of the Cameron LNG plant beyond its initial 13.5 Mt/y capacity including the development of a fourth train with a LNG production capacity of 6.75 Mt/y and a 5% increase of the initial capacity of the first 3 trains through debottlenecking. The project will also include design enhancements aiming at reducing the emissions of the facility, including in particular electric drive technology
- Launch of the front-end engineering and design (FEED) studies for the Papua LNG project's upstream production facilities, in Papua New Guinea
- Signing of an agreement with the Korea's Hanwha Energy Corporation for the supply of 600 kt/y of LNG over 15 years, starting in 2024.

- **Criterion 2: Profitable growth in renewables and electricity**

During fiscal year 2022, the Board observed that the Chairman and Chief Executive Officer fully achieved the following:

- The results of the Integrated Power segment reached for the first time in 2022 the level of $1 billion, ahead on the roadmap of the Company
- The targets of production capacity of renewable energies at year-end 2022 were exceeded: 16.8 GW vs a 16 GW target and the Net operating income of Integrated Power reached $1 billion
- TotalEnergies is one of the few private companies in the energy sector to have an ambition of 100 GW of renewables in 2030; the roadmap to achieve this objective relies on an addition of 6 GW of new wind and solar projects each year until 2025. The 2022 achievement is + 6.8 GW.
- *Solar*
  - Acquisition of SunPower's commercial and industrial solar business in the United States
  - Creation of a joint venture with ENEOS to develop onsite B2B solar distributed generation across Asia, with the objective to develop 2 GW capacity over the next 5 years
  - Acquisition of Core Solar with a portfolio of projects of 4 GW in the United States
  - Startup of the Al Kharsaah solar power plant of 800 MW in Qatar, jointly owned at 40% by the Consortium formed by TotalEnergies (49%) and Marubeni (51%), and at 60% by QatarEnergy Renewable Solutions
  - Achievement of the target of 500 MW of distributed solar production capacities worldwide and of 1,000 MW of secure projects.
- *Offshore wind*
  - Obtaining rights to develop offshore wind farms of 3 GW on the East coast of the United States, offshore New York and New Jersey and of 2 GW in Scotland with Green Investment Group (GIG) and RIDG
  - Start of Seagreen, Scotland's largest offshore wind farm, with a capacity of 1,075 MW.
- Downstream and low-carbon molecules
  - Sustainable aviation fuel:
    - Agreement with SARIA to develop SAF production on the Grandpuits platform in France
    - Start of the production of sustainable aviation fuel on the Normandy platform, in France
    - Start-up of the ethane cracker of Port Arthur, in the United States
    - Hydrogen: acquisition of a 25% interest in Adani New Industries Limited (ANIL), for the production of green hydrogen in India
    - Feasibility study with ENEOS of a production unit of of Sustainable Aviation Fuel with a 300 kt/y capacity in the Negishi refinery in Japan
  - Circular economy:
    - Signature of an agreement with Honeywell to promote the development of advanced plastic recycling in Europe
    - Commercial agreement with New Hope Energy for the production of polymers from recycled pastics in the United States
- Launch of TotalEnergies ON, the start up acceleration program dedicated to the electricity business with the first 10 selected start-ups

- **Criterion 3: Corporate Social Responsibility (CSR) performance**, measured according to three axes: the integration of the Climate in the TotalEnergies strategy, the Company's reputation in the domain of CSR as well as the policy concerning all aspects of diversity.

During fiscal year 2022, the Board observed that the Chairman and Chief Executive Officer achieved in particular the following:

- *Regarding the inclusion of the Climate in the Company's strategy*
  - Publication of the Sustainability & Climate – 2022 Progress Report presenting progress on TotalEnergies transformation strategy and the update of its climate ambition
  - 2022 climate resolution approved at 89% by shareholders at the Shareholders' Meeting on May 25, 2022: TotalEnergies is the oil & gas company whose strategy on energy transition obtained the highest percentage of support in advisory votes in Shareholders' Meetings in 2022: 89% for TotalEnergies compared to 88.5% for BP and 80% for Shell
  - TotalEnergies is the only oil company to have foreshadowed its activities as a carbon-neutral energy company in 2050 together with society: publication in March 2022 in the Sustainability & Climate Report
- *Regarding the Company's CSR ratings*
  - Reinstatement of TotalEnergies dans les Dow Jones Sustainability Indices (DJSI) World and Europe at the end of 2022
  - Listed on the FTSE4Good index on the London Stock Exchange since 2001
  - **A** rating by the MSCI non-financial rating agency (on a scale from AAA to C)
  - A score of **30.1** (Medium Risk) on a scale from 0 to 100 (0 being the best score) on the "ESG Risk Rating" of the ESG Sustainalytics rating agency. TotalEnergies is the first among its peers
  - Rating progress from Robust to **Advanced** with the rating agency ESG Moody's
  - **B-** rating in 2022 by the ISS ESG non-financial rating agency, with "Prime" status since 2006 (securities recommended for socially responsible investors)
  - **A-** rating on the CDP Climate Change questionnaire (highest score amongst oil & gas companies)
- *Regarding the diversity policy:*
  - Increase in the proportion of women in the G70 (32.9% at year-end 2022 compared to 32% at year-end 2021)
  - Increase in the proportion of senior executive women (27.5% at year-end 2022 compared to 26.5% at year-end 2021)
  - Overachievement of the 30% target of women in Management Committees in the business segments and large functional division (33.3% at year-end 2022)
  - From 2022, 5% of the variable portion of the senior executives is based on the efforts made in terms of promoting diversity (diversity and internationalization).

All the set targets being considered as largely met, the personal contribution of the Chairman and Chief Executive Officer was determined at its maximum, *i.e.*, **40%** of the fixed compensation.

### B) Details of the performance criteria applicable to performance shares (2022 Plan)

The definitive number of performance shares granted to the Chairman and Chief Executive Officer is subject to the beneficiary's continued presence in the Company during the vesting period and to performance conditions as described below.

Applicable performance conditions are the following:

- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the TSR criterion during the three vesting years (2022, 2023 and 2024). The TSR criterion considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share expressed in dollars during the three vesting years (2022, 2023 and 2024).
- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven regarding the target set for the three vesting years (2022, 2023 and 2024). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- For 15% of the shares, the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for fiscal years 2022, 2023 and 2024.
- For 15% of the shares, the criterion of the change in the indirect greenhouse gas (GHG) emissions related to the use by customers of the energy products (Scope 3[2]) in Europe for the achievement of the target to reduce these GHG emissions set for fiscal years 2022, 2023 and 2024.

In accordance with Article L. 225-197-1 of the French Commercial Code, Mr. Pouyanné will, until the end of his term, be required to retain in registered form, 50% of the shares definitively granted at the end of the three-year acquisition period as part of the 2022 plan.

In addition, the Board of Directors has noted that, pursuant to the Board's Rules of Procedure applicable to all directors, the Chairman and Chief Executive Officer is not allowed to hedge the shares of the Corporation or any related financial instruments and has taken note of Mr. Pouyanné's commitment to abstain from such hedging operations with regard to the performance shares granted.

#### Treatment of performance shares in the event of the Chairman and Chief Executive Officer leaving the Company

- In the event of the retirement or of a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition,
- In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a *pro rata* basis according to the length of time of his presence within the Company,
- In the event of resignation or termination of his function for gross negligence or misconduct, his vesting rights in the course of acquisition will be lost in whole.

The upholding of existing vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares. In case of exceptional circumstances, the Board of Directors may decide to maintain stock options and performance share grants after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.

### C) Details of the commitments made by the Corporation to the Chairman and Chief Executive Officer

#### Severance benefit

It will not be due in case of gross negligence or willful misconduct or if the Chairman and Chief Executive Officer leaves the Corporation of his own volition, accepts new responsibilities within the Company or may claim full retirement benefits within a short time period.

Receipt of this severance benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

#### Retirement benefit

Receipt of this retirement benefit is contingent upon a performance-related condition applicable to the beneficiary, which is deemed to be fulfilled if at least two of the criteria defined below are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the average pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

#### Supplementary pension plans

Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the AGIRC-ARRCO supplementary pension plan.

He also participates in the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), covered by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2022, this pension plan represented a booked expense to TotalEnergies SE in favor of the Chairman and Chief Executive Officer of €2,468.

The Chairman and Chief Executive Officer also participates in a supplementary defined-benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Corporation and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years.

(1) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(2) GHG Protocol - category 11.

This pension plan applies to all TotalEnergies SE employees whose reference compensation exceeded, as of July 4, 2019, an amount equal to 8 times the annual ceiling for calculating French Social Security contributions (PASS), set at €40,524 for 2019 (*i.e.*, €324,192), and above which there is no conventional pension plan.

To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Corporation at the Corporation's initiative or in case of disability.

The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Company since January 1, 1997, has been maintained for the benefit of this plan.

The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. This pension plan provides a pension for its beneficiaries equal to 1.8% of the portion of the compensation falling between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times the PASS, multiplied by the number of years as at December 31, 2019, of service up to a maximum of 20 years.

The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the AGIRC-ARRCO pension point.

The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016.

The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS.

Based on Mr. Pouyanné's years of service capped at 20 years on December 31, 2016, the commitments made by TotalEnergies SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2022, a gross annual retirement pension estimated at €638,431. It corresponds to 14.91% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2022 (*i.e.*, €1,550,000) and the variable portion paid in 2023[1] for fiscal year 2022 (*i.e.*, €2,731,875).

Nearly the full amount of TotalEnergies SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2022, is €16.1 million for the Chairman and Chief Executive Officer (€16.2 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value TotalEnergies SE's commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2022, as well as the statistical life expectancy of the beneficiaries.

The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2022, a gross annual pension estimated at €766,735, corresponding to 17.91% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2022 and variable portion paid in 2023 for fiscal year 2022).

In line with the principles for determining the compensation of the executive directors as set out in the AFEP-MEDEF Code which the Corporation uses as a reference, the Board of Directors took into account the benefit accruing from participation in the pension plans when determining the Chairman and Chief Executive Officer's compensation.

### COMPENSATION RATIOS – ANNUAL TREND OF THE COMPENSATION, OF PERFORMANCE OF THE CORPORATION AND OF THE RATIOS

In accordance with Article L. 22-10-9, 6° and 7° of the French Commercial Code, below are indicated the ratios between the level of compensation of the Chairman and Chief Executive Officer and the average and median compensation of TotalEnergies SE employees, as well as the annual trend of the compensation, of performance of the TotalEnergies SE[2], of the average compensation of the Corporation's employees and of the ratios during the last five fiscal years.

Also presented are the ratios between the level of compensation of the Chairman and Chief Executive Officer of TotalEnergies SE and the average and median compensation of employees within a scope extended to all Corporation employees in France more than representing more than 80% of the payroll according to the Afep guidelines.

The elements included in the calculation of the compensation ratios relate to all elements of compensation paid during fiscal year N whether in the numerator **for the executive directors** or in the denominator for **employees** (fixed compensation, variable component paid during fiscal year N in respect of fiscal year N-1, extraordinary or differed compensation, incentive and profit-sharing compensation paid during fiscal year N in respect of N-1, employers' social charges and contributions...) as well as the valuation of the performance shares granted during fiscal year N (excluding in-kind benefits) according to IFRS standards.

It should be mentioned that the employers' social charges and contributions are taking into account for executive directors and employees starting from 2022 in accordance with the Afep guidelines, as updated in February 2021. Data from 2018 to 2021 were thus restated as defined in 2022.

The employees included in the denominator are employees who have been present and active throughout the year in question, their compensation being taken on a full-time basis. Trainees, professional contracts, people on sabbatical or on long-term absence are therefore not included in the denominator.

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 26, 2023.
(2) TotalEnergies SE, the parent company of the Company (full-time-equivalent employees present on December 31 of each fiscal year for the period in question).

**Table of ratios pursuant to I. 6° and 7° of Article L. 22-10-9 of the French Commercial Code presented in accordance with Afep guidelines updated in February 2021**

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Change (%) in compensation paid to Mr. Patrick Pouyanné, Chairman and Chief Executive Officer of TotalEnergies SE (since December 19, 2015) | 12% | -8% | -20%[1] | 24% | 31% |
| **Information relating to the scope of TotalEnergies SE: 2,950 present employees on permanent contracts (CDI) and in activity (9% of employees in France and 19.1% of the payroll France) as of December 31, 2022** | | | | | |
| Change (%) in average compensation of employees | 3% | 3% | -7%[2] | 2% | 25% |
| Ratio compared to average compensation of employees | 45 | 40 | 34 | 42 | 44 |
| Change in ratio (%) relative to previous year | 8% | -11% | -14% | 25% | 5% |
| Ratio compared to median compensation of employees | 57 | 51 | 42 | 51 | 54 |
| Change in ratio (%) relative to previous year | 9% | -11% | -18% | 25% | 6% |
| **Additional information on the enlarged scope representing at least 80% of the payroll of the employees France (19,262 employees) as of December 31, 2022** | | | | | |
| Change (%) in average compensation of employees | 2% | 3% | -5%[3] | 1% | 16% |
| Ratio compared to average compensation of employees | 66 | 59 | 49 | 61 | 68 |
| Change in ratio (%) relative to previous year | 10% | -10% | -16% | 25% | 13% |
| Ratio compared to median compensation of employees | 84 | 74 | 61 | 77 | 86 |
| Change in ratio (%) relative to previous year | 11% | -12% | -19% | 27% | 12% |
| **Performance of TotalEnergies SE (on a consolidated basis)** | | | | | |
| Change in net adjusted income[4] | 28% | -13% | -66% | x4.4 | x2.0 |
| Change in operating cash flow before working capital changes[5] | 15% | 7% | -40% | 86% | 57% |

## 4.3.2.2 COMPENSATION POLICY OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The compensation policy of the Chairman and Chief Executive Officer for fiscal year 2023 was set by the Board of Directors, at its meetings on February 7, 2023 and on March 15, 2023, in accordance with the provisions of Article L. 22-10-8 of the French Commercial Code, on the proposal of the Compensation Committee. It will be submitted to the Shareholders' Meeting on May 26, 2023. It is based on the general principles for determining the compensation of executive directors set out below.

### GENERAL PRINCIPLES FOR DETERMINING THE COMPENSATION OF THE EXECUTIVE DIRECTORS

The general principles for determining the compensation and other benefits granted to the executive directors of TotalEnergies SE are as follows. They were approved by the Board of Directors and clarified at the Board meeting on March 16, 2022, on two specific points: one concerns the treatment of performance shares granted to the Chairman and Chief Executive Officer in the event of his leaving the Company, and the other concerns the possibility for the Board to approve a compensatory payment in the event of the recruitment of an executive director from outside the Company, where this recruitment results in the loss of deferred benefits *(buy-out award)*. These two clarifications were made in order to take into account certain remarks made by the proxy advisors and certain shareholders:

- Compensation as well as benefits for the executive directors are set by the Board of Directors on the proposal of the Compensation Committee. Such compensation must be reasonable and fair in a context of solidarity and motivation within the company. Compensation for the executive directors is based on the market, the work performed, the results obtained and the responsibilities assumed.
- Compensation for the executive directors includes a fixed portion and a variable portion. The fixed portion is reviewed at least every two years.
- The amount of the variable portion is reviewed each year and may not exceed a stated percentage of the fixed portion. Variable compensation is determined based on pre-defined quantifiable and qualitative criteria that are periodically reviewed by the Board of Directors. Quantifiable criteria are limited in number, objective, measurable and adapted to the Company's strategy.
- The variable portion rewards short-term performance and the progress made toward paving the way for medium-term development. It is determined in a manner consistent with the annual performance review of the executive directors and the Company's medium-term strategy.
- The Board of Directors monitors the change in the fixed and variable portions of the executive directors' compensation over several years in light of the Company's performance.
- There is no specific pension plan for the executive directors. They are eligible for retirement benefits and pension plans available to certain employee categories in the Company under conditions determined by the Board.

(1) The reduction in compensation paid to Mr. Pouyanné between 2019 and 2020 is partly due to the Chairman and Chief Executive Officer's decision to temporarily cut his fixed compensation by 25% as from May 1, 2020, until December 31, 2020, due to the economic context, as well as the significant reduction in the IFRS valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019). If the fixed compensation of Mr. Pouyanné had not been reduced by 25% as from May 1, 2020 until December 31, 2020, and if the performance shares granted had been valued on the basis of a unit fair value of €24.85 (fair value based on a calculation using identical parameters and the average of the closing prices for the TotalEnergies share during the year 2020 of €34.957), the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 40 (instead of 34), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 50 (instead of 42). Within the limits of the enlarged perimeter, the compensation ratio of the Chairman and Chief Executive Officer compared to the average compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 59 (instead of 49), and the compensation ratio of the Chairman and Chief Executive Officer compared to the median compensation of the TotalEnergies SE's employees between 2019 and 2020 would have been 73 (instead of 61).

(2) The reduction in compensation paid to the employees between 2019 and 2020 is partly due to the decrease of the incentive and profit-sharing compensation due to the economic context notably, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019).

(3) The reduction in compensation paid to the employees between 2019 and 2020 is partly due to the decrease of the incentive and profit-sharing compensation due to the economic context notably, as well as the significant reduction in the IFRS 2 valuation of performance shares granted in 2020 (fair value of €12.40 per share in 2020 compared to €40.11 in 2019).

(4) Adjusted net income TotalEnergies share, published in the consolidated financial statements for the fiscal year concerned.

(5) Operating cash flow before working capital changes, as published in the consolidated financial statements for the year concerned. Is defined as the cash flow from operating activities before changes in working capital at replacement cost excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020).

- In line with the principles for determining the compensation of the executive directors as set out in the AFEP-MEDEF Code which the Corporation uses as a reference, the Board of Directors takes into account the benefit accruing from participation in the pension plans when determining the compensation policy of the executive directors.
- Stock options and performance shares are designed to align the interests of the executive directors with those of the shareholders over the long term.

  The grant of options and performance shares to the executive directors is reviewed in light of all the components of compensation of the person in question. No discount is applied when stock options are granted.

  The exercise of options and the definitive grant of performance shares to which the executive directors are entitled are subject to conditions of presence in the Company and performance that must be met over several years.

  The Board of Directors determines the rules related to holding a portion of the shares resulting from the exercise of options as well as the performance shares definitively granted, which apply to the executive directors until the end of their term of office.

  The executive directors cannot be granted stock options or performance shares when they leave office.

  In the event of the retirement or a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition.

  In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a *pro rata basis* according to the length of time of his presence within the Company.

  In the event of resignation or termination of his function for gross negligence or misconduct, all vesting rights in the course of acquisition will be lost in whole.

  The upholding of vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares.

  In case of exceptional circumstances, the Board may decide to maintain stock options and performance share grant rights after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.
- After three years in office, the executive directors are required to hold at least the number of Corporation shares set by the Board.
- The components of compensation of the executive directors are made public after the Board of Directors' meeting at which they are approved.
- The executive directors do not take part in any discussions or deliberations of the corporate bodies regarding items on the agenda of Board of Directors' meetings related to the assessment of their performance or the determination of the components of their compensation.
- When a new executive director is nominated, the Board of Directors decides on his or her compensation as well as benefits, further to a proposal by the Compensation Committee, and in accordance with the above general principles for determining the compensation of the executive directors.

  The Board of Directors, on the proposal of the Compensation Committee, may approve a compensation payment in the event of the recruitment of an executive director from outside the Company, where this recruitment results in the loss of deferred benefits *(buy-out award)*. The Board will ensure that the amount thus granted does not exceed the loss of these benefits and may make its payment subject to performance conditions. Exceptional compensation or specific benefits when taking office are forbidden, unless the Board of Directors decides otherwise for particular reasons, in the corporate interest and within the limits of the exceptional circumstances.

  At its meeting on February 7, 2023, the Board of Directors adopted a clawback policy under which, in the event of a restatement of the financial statements, the Corporation will require, within the framework and limits of applicable law, the recovery within a reasonable period of time of the variable compensation (in cash and/or equity) paid or awarded to the executive officers, or otherwise vested in them, during the three financial years preceding the decision to make such a restatement in the amount of the portion of such compensation that should not have been paid, vested or awarded on the basis of the restated financial statements. A restatement is defined as any accounting restatement that gives rise to an obligation to make restitution in accordance with Section 10D-1 of the Securities Exchange Act of 1934, the New York Stock Exchange standards and the implementing measures issued thereunder.

## COMPENSATION POLICY APPLICABLE TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER FOR FISCAL YEAR 2023

At its meetings on February 7, 2023 and on March 15, 2023, the Board of Directors, on the proposal of the Compensation Committee, approved the compensation policy applicable to the Chairman and Chief Executive Officer for the 2023 financial year, after ensuring that it was consistent with the external benchmarks that the Compensation Committee had commissioned and after taking into consideration the opinions expressed by the proxy advisors.

### A) The Chairman and Chief Executive Officer's base salary (fixed compensation) for fiscal year 2023

In line with the compensation policy voted by the Shareholders' Meeting on May 28, 2021, Mr. Patrick Pouyanné's annual base salary (fixed compensation) in respect of his duties as Chairman and Chief Executive Officer for fiscal year 2023 is set at €1,550,000. Such fixed compensation is unchanged compared to 2022.

### B) Annual variable compensation due for fiscal year 2023 (expressed as a percentage of the base salary)

The maximum amount of the variable portion that could be paid to the Chairman and Chief Executive Officer for the fiscal year 2023 is maintained at **180%** of base salary (percentage unchanged compared to the variable portion allocated in respect of fiscal year 2022).

The formula for calculating the variable portion of the Chairman and Chief Executive Officer for fiscal year 2023, which may not exceed 180% of his base salary, includes, as in 2022, quantifiable targets reflecting the Company's performance, up to a maximum of 140% of the fixed portion, and the personal contribution of the Chairman and Chief Executive Officer allowing for qualitative assessment of his management, up to a maximum of 40% of the fixed portion. The total variable portion may thus reach a maximum of 180% of the fixed portion of the Chairman and Chief Executive Officer's compensation.

The economic parameters (quantifiable targets) are based on three themes: Safety for 20%, GHG emissions (Scope 1+2) for 10%, financial for 110%.

For the variable portion in respect of fiscal year 2023, the Board of Directors decided to:

- remove the over-performance relative to each of the financial criteria, in case over-performance observed beyond the maximum limit of each of the sub-criteria by defining target objectives;
- modify some of the levels of the criteria for determining the variable portion, the Board having wished to ensure that they were set at an ambitious level:
  - revise the FIR criterion as follows:
    - up to 50%: the maximum weighting of this sub-criterion will be reached if there is no accidental death and is zero from at least one accidental death,
    - up to 50%: the maximum weighting of this sub-criterion will be reached if TotalEnergies' FIR is the best of the panel of majors and will be zero if the FIR is the worst of the panel. The weighting of the criterion is calculated based on TotalEnergies' FIR by linear interpolation between these two points of reference
  - replace the gearing ratio criterion by that of the Underlying Cash Flow Growth corresponding to the variation of the operating cash flow before working capital changes (MBA) in a constant market prices environment. This criterion is a key indicator for measuring the Company's profitable growth. It is thus central in the financial communication to investors, in particular in relation to the shareholder return policy. Indeed, the ordinary dividend growth, since it measures the growth of the cash flows generated by the Company, year on year, at constant market prices, thus reflecting the underlying structural growth of the Company;
  - raise the upper limit of the ROE criterion from 12% to 13%;
  - tighten up the upper limit of the organic cash breakeven from \$30/b to \$25/b;
  - set the greenhouse gas emissions reduction target in accordance with the roadmap, by setting the minimum and maximum limits at 41.6 Mt $CO_2e$ for 2023 and at 39.6 Mt $CO_2e$ for Scope 1+2 from operated facilities, in line with the new target of 38 Mt $CO_2e$ in 2025. These targets include the change in the Company perimeter related to the new electricity strategy acquiring flexible production capacity (gas-fired power plants).

The personal contribution targets (qualitative criteria) are focused on the challenges of advancing the transformation of the energy transition.

### Annual variable compensation due for fiscal year 2023 (expressed as a percentage of the base salary)

| | | % targets |
|---|---|---|
| **SUMMARY OF THE QUANTIFIABLE TARGETS** | | |
| **A. Safety and greenhouse gas (GHG) emissions** | | |
| a) Safety | | 20% |
| – TRIR | *6%* | |
| – FIR | *6%* | |
| – Evolution of the number of Tier 1 + Tier 2 incidents | *8%* | |
| b) Evolution of GHG emissions (Scope 1+2) | | 10% |
| **Maximum percentage that may be allocated in respect of Safety and greenhouse gas (GHG) emissions criteria** | | **30%** |
| **B. Financial parameters** | | |
| – Return on equity (ROE) | | 30% |
| – Underlying Cash Flow Growth | | 30% |
| – Pre-dividend organic cash breakeven | | 30% |
| – Return on average capital employed (ROACE), comparative | | 20% |
| **Maximum percentage that may be allocated in respect of financial parameters** | | **110%** |
| **MAXIMUM PERCENTAGE THAT MAY BE ALLOCATED IN RESPECT OF ECONOMIC QUANTIFIABLE TARGETS** | | **140%** |
| **PERSONAL CONTRIBUTION (QUALITATIVE CRITERIA)** | | |
| – Steering of the Corporation's strategy of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity | | 15% |
| – Profitable growth in renewables and electricity | | 10% |
| – Corporate Social Responsibility (CSR) performance, notably the integration of climate issues in the Company's Strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity | | 15% |
| **Maximum percentage that may be allocated in respect of the personal contribution** | | **40%** |
| TOTAL | | 180% |

**Safety and Greenhouse gas emissions criteria**

The Safety and Greenhouse gas emissions criteria are assessed on the basis of the quantifiable targets set out below for a maximum of 30% of the Chairman and Chief Executive Officer's fixed salary.

**The change in safety** will be assessed, for a maximum of 20%, through the achievement of an annual TRIR (Total Recordable Incident Rate) target and the number of accidental deaths per million hours worked, FIR (Fatality Incident Rate), as well as through changes in the Tier 1 + Tier 2 indicator(1):

- The maximum weighting of the **TRIR criterion** is 6% of the base salary (as in 2022).
  - The maximum weighting will be reached if the TRIR is below 0.65 (0.7 in 2022).
  - The weighting of the criterion will be zero if the TRIR is above or equal to 1.04 (1.12 in 2022).
  - The interpolations are linear between these points of reference;
- The maximum weighting of the **FIR** criterion will be 6% of the base salary (as in 2022).
  - up to 50%: the maximum weighting of this sub-criterion will be reached if there is no accidental death and is zero from at least one accidental death,
  - up to 50%: the maximum weighting of this sub-criterion assessed by comparison with that of the four major competing oil companies (ExxonMobil, Shell, BP et Chevron), will be reached if TotalEnergies' FIR is the best of the panel of majors and will be zero if the FIR is the worst of the panel. The weighting of the criterion is calculated based on TotalEnergies' FIR by linear interpolation between these two points of reference.
- the maximum weighting of the changes in the number of **Tier 1 + Tier 2 incidents** is 8% of the base salary (as in 2022).
  - The maximum weighting will be reached if the number of Tier 1 + Tier 2 incidents is equal to or below 50 (70 in 2022).
  - The weighting of the parameter will be zero if the number of Tier 1 + Tier 2 incidents is equal to or higher than 90 (125 in 2022).
  - The interpolations are linear between these two points of reference.

**The change in greenhouse gas (GHG) emissions from operated facilities** will be assessed, for a maximum of 10% of the Chairman and Chief Executive Officer's fixed portion, through the achievement of a GHG (Scope 1+2) reduction emission target from 46 Mt $CO_2e$ in 2015 to 38 Mt $CO_2e$ in 2025, corresponding to a reduction of 800 kt $CO_2e$/y, *i.e.*, a target of 39.6 Mt $CO_2e$ for 2023. The maximum weighting of the GHG criterion is 10% of the base salary:

- the maximum weighting of the criterion, i.e. 10% of the base salary, will be obtained if the GHG emissions (Scope 1+2) from operated facilities reaches the target set at 39.6 Mt $CO_2e$ in 2023 (compared to 41.8 Mt $CO_2e$ in 222);
- the weighting of the criterion will be zero if the emissions are 2 Mt $CO_2e$ above the target set;
- the interpolations are linear between these points of reference.

**Details on the financial parameters**

The four financial criteria are assessed on the basis of the quantifiable objectives set out below for a maximum of 110% of the Chairman and Chief Executive Officer's fixed portion:

- The **return on equity (ROE)**, as published by the Company on the basis of its balance sheet and consolidated statement of income, will be assessed as follows. The maximum weighting of the ROE criterion will be 30% of the base salary:
  - the maximum weighting of the criterion will be reached, *i.e.*, 30% of the base salary, if the ROE is higher than or equal to 13% (compared with 12% in 2022);
  - the weighting of the criterion will be zero if the ROE is lower than or equal to 6% (as in 2022);
  - the interpolations are linear between these two points of reference.
- The **Underlying Cash Flow Growth, *i.e.,* the variation of the operating cash flow before working capital changes(2)** in 2023 compared to 2022, in the 2022 price environment -excluding Novatek, will be assessed as follow. The maximum weighting of the Underlying Cash Flow Growth criterion will be 30% of the base salary:
  - the maximum weighting of the criterion, *i.e.*, 30% of the base salary, will be reached if the variation of the operating cash flow before working capital changes is above or equal to $1 billion;
  - the weighting of the criterion will be zero if the variation of the operating cash flow before working capital changes is negative;
  - the interpolations are linear between these two points of reference.
- The **pre-dividend organic cash breakeven** will be assessed as follows. The maximum weighting of this criterion will be 30% of the base salary:
  - the maximum weighting of the criterion will be reached, *i.e.*, 30% of the base salary, if the breakeven is below or equal to $25/b;
  - the weighting of the criterion will be zero if the breakeven is above or equal to $35/b;
  - the interpolations are linear between these two points of reference.

  The pre-dividend organic cash break-even is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments(3). The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- The **return on average capital employed (ROACE)**, by comparison, will be assessed as follows. The maximum weighting of the ROACE criterion will be 20% of the base salary. TotalEnergies' ROACE, as published from the consolidated balance sheet and the income statement, will be compared to the ROACE average of each of the four peers (ExxonMobil, Shell, BP and Chevron). The ROACE is equal to the net adjusted operating income(4) divided by the average of the capital employed (at replacement costs, net of deferred income tax and non-current liabilities) of the start and end of the fiscal year:
  - the maximum weighting of the criterion will be reached, *i.e.*, 20% of the base salary, if TotalEnergies' ROACE is 2% above the average of the 4 peers' ROACE (as in 2022);
  - the weighting of the criterion will be zero if TotalEnergies' ROACE is under 2% or more compared to the average of the 4 peers' ROACE (as in 2022);
  - the interpolations will be linear between these two points of reference.

**Personal contribution**

The criteria for assessing the personal contribution of the Chairman and Chief Executive Officer, up to a maximum of 40% of his fixed portion, are as follows:

- Steering **the Corporation's strategy** of moving towards carbon neutrality, in line with the 2020/2030 targets announced to investors in September 2020, in particular increasing energy production focusing on gas and renewable energy/electricity, as well as moving towards a sales mix of 35% oil, 50% gas and 15% electricity, for up to **15%**;
- Profitable growth in **renewables and electricity**, for up to **10%**;
- **Corporate Social Responsibility (CSR) performance**, including the integration of climate issues in the Company's strategy, the Company's commitment and ratings regarding CSR, as well as the policy concerning all aspects of diversity, for up to **15%**.

(1) Tier 1 and Tier 2: indicator of the number of loss of primary containment events, with more or less significant consequences, as defined by the API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.
(2) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in capital at replacement cost, excluding the impact of contracts recognized at fair value in the iGRP segment and including capital gains on the disposal of renewables projects (as of the first quarter of 2020).
(3) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(4) Adjustment items include special items, the inventory effect and the impact for change in fair value.

#### Powers of the Board under special circumstances

In the event of a significant change affecting the calculation of the economic parameters for the Company (change in accounting standard, change in the policy of rating agencies, significant patrimonial transaction approved by the Board of Directors, etc.), the Board reserves the right to calculate the parameters mutatis mutandis with justification of the changes *i.e.*, excluding exogenous extraordinary elements.

In addition, the Board of Directors may exercise its discretionary powers regarding the determination of the compensation of the Chairman and Chief Executive Officer, in accordance with Articles L. 22-10-16, paragraph 1 and L. 22-10-17, paragraph 3 of the French Commercial Code, and pursuant to Articles L. 22-10-8 and L. 22-10-34 of the French Commercial Code, in the event of particular circumstances (significant change in the perimeter, completion of a transformation transaction or unexpected changes in the competitive environment...) that could justify that the Board of Directors adjusts, exceptionally and both on the upside and the downside, one or more of the criteria that make up his compensation to ensure that the results of the application of the criteria described above reflect both the performance of the Chairman and Chief Executive Officer and the performance of the Company either in absolute terms or relative to the four peers of the Company, for the economic criteria measured in comparison with these four peers.

This adjustment would be made to the variable compensation of the Chairman and Chief Executive Officer by the Board of Directors on the proposal of the Compensation Committee, within the limit of the variable compensation cap of 180% of the fixed compensation, after the Board of Directors ensured that the interests of the Corporation and of its shareholders are aligned with those of the executive director.

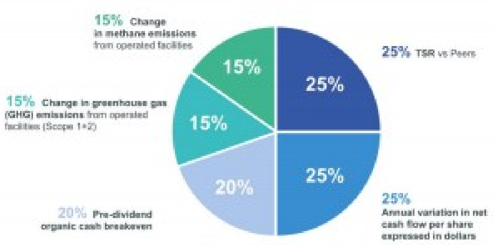
Pursuant to Article L. 22-10-34 of French Commercial Code, the payment of this annual variable portion is subject to the approval of the Shareholders' Meeting to be called in 2024 to approve 2023 financial statements.

### C) Performance shares

The granting of performance shares to the Chairman and Chief Executive Officer corresponds to the long-term component of his global compensation. Performance shares are definitively granted at the end of a three-year vesting period. The definitive grant of shares is subject to a presence condition and performance conditions assessed at the end of this three-year vesting period.

In accordance with the principles of the compensation policy approved by the Shareholders' Meeting on May 28, 2021, which approved the principle of increasing the number of performance shares to be granted to the Chairman and Chief Executive Officer for fiscal years 2021, 2022 and 2023 to the following levels: 90,000, 100,000 and 110,000 shares, the compensation policy for fiscal year 2023 includes the granting of **110,000 performance shares** to the Chairman and Chief Executive Officer as part of a 2023 plan that is not specific to him.

#### Performance conditions




The performance shares will be subject to the following performance conditions, subject to the approval of the 17th resolution by the Shareholders' meeting to be held on May 26, 2023. The definitive number of granted shares will be based on (i) the TSR (Total Shareholder Return), (ii) the annual variation of the net cash flow by share in dollars compared to his peers, (iii) the pre-dividend organic cash breakeven, (iv) the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2), (v) the change in methane emissions from operated facilities, regarding fiscal years 2023, 2024 and 2025, and applied as follows:

- For **25%** of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2023, 2024 and 2025) based on the **TSR criterion** of the last quarter of the year in question, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For **25%** of the shares, the Corporation will be ranked against its peers (ExxonMobil, Shell, BP and Chevron) each year during the three vesting years (2023, 2024 and 2025) using the **annual variation in net cash flow per share** criterion expressed in dollars.

Based on the ranking, a grant rate will be determined each year for these two first criteria: 1st: 180% of the grant; 2nd: 130% of the grant; 3rd: 80% of the grant; 4th and 5th:0%, with a maximum of 100%.

- For **20%** of the shares, the **pre-dividend organic cash breakeven criterion** will be assessed each year during the three vesting years (2023, 2024 and 2025) as follows:
  - the maximum grant rate, *i.e.*, 100% for this criterion, will be achieved if the breakeven is less than or equal to \$25/b,
  - the grant rate will be zero if the breakeven is greater than or equal to \$35/b.
  - the interpolations will be linear between these two points of reference.

  The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.

A grant rate will be determined each year for each of these above criteria. For each of the first three criteria, the average of the three grant rates obtained (for each of the three fiscal years for which the performance conditions are assessed) will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%) and capped at 100%.

- For **15%** of the shares, the **change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2)** will be assessed with regard to the achievement of the target to reduce the GHG emissions set at 38 Mt $CO_2e$ in 2025:
  - the maximum grant rate, *i.e.*, 100% for this criterion, will be obtained if the GHG emissions (Scope 1+2) reach in 2025 the target set;
  - the grant rate will be zero if the GHG emissions (Scope 1+2) at year-end 2025 are 2 Mt $CO_2e$ above the target set;
  - the interpolations will be linear between these two points of reference.
- For **15%** of the shares, the criterion of the **change in the methane emissions from operated facilities** will be assessed with regard to the achievement of the target to reduce methane emissions set for 2025 at -50% compared to the methane emissions of 2020.
  - the maximum grant rate, *i.e.*, 100% for this criterion, will be reached if the methane emissions in 2025 reach the target;
  - the grant rate will be zero if the methane emissions are 10% below the set target in 2025;
  - the interpolations will be linear between these two points of reference.

(1) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.

The definitive grant rate will be rounded to the nearest 0.1 whole percent (0.05% being rounded to 0.1%).

The number of shares definitively granted after determination of performance conditions will be determined according to the weighting of each of the five criteria and rounded up to the next whole number of shares.

In accordance with Article L. 225-197-1 of the French Commercial Code, at the end of the three-year vesting period, the executive director will be required to hold 50% of the shares definitively allocated to him at the end of the vesting period in registered form until the end of his term of office.

#### Treatment of performance shares in the event of the Chairman and Chief Executive Officer leaving the Company

The Board paid particular attention to the comments made by shareholders concerning the treatment of performance shares granted to the Chairman and Chief Executive Officer in the event of his leaving the Company and clarified the following points:

- In the event of the retirement or of a change of position within the Company, the Chairman and Chief Executive Officer upholds all vesting rights in the course of acquisition,
- In the event of forced departure, other than for serious or gross misconduct, the Board of Directors may decide that the Chairman and Chief Executive Officer upholds his vesting rights in the course of acquisition on a pro rata basis according to the length of time of his presence within the Company,
- In the event of resignation or termination of his function for gross negligence or misconduct, his vesting rights in the course of acquisition will be lost in whole.

The upholding of existing vesting rights in the course of acquisition under the conditions of departure described above is accompanied by the upholding of the performance criteria set for the definitive grant of the shares.

In case of exceptional circumstances, the Board of Directors may decide to maintain stock options and performance share grants after the executive director left, the decision of the Board of Directors has to be duly motivated and taken in the corporate interest.

### D) Commitments made by the Corporation to the Chairman and Chief Executive Officer

The commitments made by the Corporation to the Chairman and Chief Executive Officer relate to the pension plans, the retirement benefit and the severance benefit to be paid in the event of forced departure related to a change of control or strategy, as well as the life insurance and healthcare benefits. They were approved by the Board of Directors on March 14, 2018, and by the Annual Shareholders' Meeting on June 1, 2018, in accordance with the provisions of Article L. 225-42-1 of the French Commercial Code.

It should be noted that Mr. Pouyanné already benefited from all these provisions when he was an employee of the Corporation, except for the commitment to pay severance benefits in the event of forced departure related to a change of control or strategy. It should also be noted that Mr. Pouyanné, who joined the Company on January 1, 1997, ended the employment contract that he previously had with the Corporation through his resignation at the time of his appointment as Chief Executive Officer on October 22, 2014.

#### Pension plans

Pursuant to applicable legislation, the Chairman and Chief Executive Officer is eligible for the basic French Social Security pension and for pension benefits under the AGIRC-ARRCO supplementary pension plan.

He also participates in the internal defined contribution pension plan applicable to all TotalEnergies SE employees, called PERO (*Plan d'épargne retraite obligatoire* - mandatory retirement savings plan), covered by Article L. 242-1 of the French Social Security Code. The Corporation's commitment is limited to its share of the contribution paid to the insurance company that manages the plan. For fiscal year 2022, this pension plan represented a booked expense to TotalEnergies SE in favor of the Chairman and Chief Executive Officer of €2,468.

The Chairman and Chief Executive Officer also participates in a supplementary defined-benefit pension plan, covered by Article L. 137-11 of the French Social Security Code, set up and financed by the Corporation and approved by the Board of Directors on March 13, 2001, for which management is outsourced to two insurance companies effective January 1, 2012. In accordance with the ordinance 2019-697 published on July 4, 2019, this plan is closed to any new participant as from July 4, 2019, and, for participants as of July 4, 2019, and retiring as from January 1, 2020, the amount of supplementary pension provided for in this plan is calculated on the basis of number of years of service as at December 31, 2019, and up to a maximum of 20 years.

This plan applies to all TotalEnergies SE employees whose reference compensation exceeded as of July 4, 2019 eight times the annual ceiling for calculating French Social Security contributions (PASS), set at €40,524 for 2019 (*i.e.,* €324,192), and above which there is no conventional pension plan.

To be eligible for this supplementary pension plan, participants must have served for at least five years, be at least 60 years old and exercised his or her rights to retirement from the French Social Security. The benefits under this plan are subject to a presence condition under which the beneficiary must still be employed at the time of retirement. However, the presence condition does not apply if a beneficiary aged 55 or older leaves the Corporation at the Corporation's initiative or in case of disability.

The length of service acquired by Mr. Pouyanné as a result of his previous salaried duties held at the Company since January 1, 1997, has been maintained for the benefit of this plan.

The compensation taken into account to calculate the supplementary pension is the average gross annual compensation (fixed and variable portion) over the last three years. The amount paid under this plan is equal to 1.8% of the compensation falling between 8 and 40 times the PASS and 1% for the portion of the compensation falling between 40 and 60 times this ceiling, multiplied by the number of years of service as of December 31, 2019, up to a maximum of 20 years.

The sum of the annual supplementary pension plan benefits and other pension plan benefits (other than those set up individually and on a voluntary basis) may not exceed 45% of the average gross compensation (fixed and variable portion) over the last three years. In the event that this percentage is exceeded, the supplementary pension is reduced accordingly. The amount of the supplementary pension determined in this way is indexed to the AGIRC-ARRCO pension point.

The supplementary pension includes a clause whereby 60% of the amount will be paid to beneficiaries in the event of death after retirement.

The Board noted that Mr. Pouyanné can no longer acquire additional pension rights under this plan given the rules for determining pension rights set out in the plan and the 20 years of service of Mr. Pouyanné as of December 31, 2016.

The conditional rights granted to Mr. Patrick Pouyanné for the period from January 1, 1997, to December 31, 2016 (inclusive), are now equal to a reference rate of 36% for the portion of the base compensation falling between 8 and 40 times the PASS and 20% for the portion of the base compensation falling between 40 and 60 times the PASS.

Based on Mr. Pouyanné's seniority capped at 20 years on December 31, 2016, the commitments made by TotalEnergies SE to the Chairman and Chief Executive Officer in terms of supplementary defined benefits and similar pension plans represented, at December 31, 2022, a gross annual retirement pension estimated at €638,431. It corresponds to 14.91% of Mr. Pouyanné's gross annual compensation consisting of the annual fixed portion for 2022 (*i.e.,* €1,550,000) and the variable portion paid in 2023[1] for fiscal year 2022 (*i.e.,* €2,731,875).

Nearly the full amount of TotalEnergies SE's commitments under these supplementary and similar retirement plans (including the retirement benefit) is outsourced for all beneficiaries to insurance companies and the non-outsourced balance is evaluated annually and adjusted through a provision in the accounts. The amount of these commitments as of December 31, 2022, is €16.1 million for the Chairman and Chief Executive Officer (€16.2 million for the Chairman and Chief Executive Officer and the executive and non-executive directors covered by these plans). These amounts represent the gross value of TotalEnergies' commitments to these beneficiaries based on the estimated gross annual pensions as of December 31, 2022, as well as the statistical life expectancy of the beneficiaries.

The total amount of all the pension plans in which Mr. Pouyanné participates represents, at December 31, 2022, a gross annual pension estimated at €766,735, corresponding to 17.91% of Mr. Pouyanné's gross annual compensation defined above (annual fixed portion for 2022 and variable portion paid in 2023 for fiscal year 2022).

#### Retirement benefit

The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to those available to eligible members of the Company under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit is equal to 25% of the fixed and variable annual compensation received during the 12 months preceding retirement.

The receipt of this retirement benefit is subject to conditions related to the performance of the beneficiary.

Therefore, the conditions applicable to the beneficiary will be deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

The retirement benefit cannot be combined with the severance benefit described below.

#### Severance benefit

The Chairman and Chief Executive Officer is entitled to a benefit equal to two years of his gross compensation in the event of a forced departure related to a change of control or strategy. The calculation is based on the gross compensation (fixed and variable) of the 12 months preceding the date of termination or non-renewal of his term of office.

The severance benefit will only be paid in the event of a forced departure related to a change of control or strategy. It will not be due in case of gross negligence or willful misconduct or if the Chairman and Chief Executive Officer leaves the Corporation of his own volition, accepts new responsibilities within the Company or may claim full retirement benefits within a short time period.

The receipt of the severance benefit is subject to conditions linked to the beneficiary's performance.

Therefore, the conditions applicable to the beneficiary are deemed to be fulfilled if at least two of the following criteria are met:

- the average return on equity (ROE) for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is at least 10%;
- the average gearing ratio for the three years preceding the year in which the Chairman and Chief Executive Officer leaves is less than or equal to 30%; and
- the pre-dividend organic cash breakeven of the three years preceding the year in which the Chairman and Chief Executive Officer retires is below or equal to $30/b.

#### Life insurance and health expense reimbursement plans

The Chairman and Chief Executive Officer is covered by the following life insurance plans provided by various life insurance companies:

- an "incapacity, disability, life insurance" plan applicable to all employees, partly paid for by the Corporation, that provides for two options in case of death of a married employee: either the payment of a lump sum equal to 5 times the annual compensation up to 16 times the PASS, corresponding to a maximum of €3,290,880 in 2022, plus an additional amount if there is a dependent child or children, or the payment of a lump sum equal to 3 times the annual compensation up to 16 times the PASS, plus a survivor's pension and education allowance;
- a second "disability and life insurance" plan, fully paid by the Corporation, applicable to executive officers and senior executives whose annual gross compensation is more than 16 times the PASS. This contract, signed on October 17, 2002, amended on January 28 and December 11, 2015, guarantees the beneficiary the payment of a lump sum, in case of death, equal to two years of compensation (defined as the gross annual fixed reference compensation (base France), which corresponds to 12 times the monthly gross base salary paid during the month prior to death or sick leave, to which is added the highest amount in absolute value of the variable portion received during one of the five previous years of activity), which is increased to three years in case of accidental death and, in case of accidental permanent disability, a lump sum proportional to the degree of disability. Death benefits are increased by 15% for each dependent child.

Payments due under this contract are made after the deduction of any amount paid under the above-mentioned plan applicable to all employees.

The Chairman and Chief Executive Officer also has the use of a company car and is covered by the health care plan available to all employees.

(1) Subject to approval by the Ordinary Shareholders' Meeting on May 26, 2023.

## 4.3.3 Executive officers' compensation

TotalEnergies' executive officers include the members of the Executive Committee. As of December 31, 2022, the list of the executive officers of TotalEnergies was as follows (eight people, as of December 31, 2021):

- Patrick Pouyanné, Chairman and Chief Executive Officer and Chairman of the Executive Committee;
- Helle Kristoffersen, President, Strategy & Sustainability, member of the Executive Committee;
- Stéphane Michel, President, Gas, Renewables & Power, member of the Executive Committee;
- Thierry Pflimlin, President, Marketing & Services, member of the Executive Committee;
- Bernard Pinatel, President, Refining & Chemicals, member of the Executive Committee;
- Jean-Pierre Sbraire, Chief Financial Officer, member of the Executive Committee;
- Namita Shah, President, OneTech, member of the Executive Committee;
- Nicolas Terraz, President, Exploration & Production, member of the Executive Committee.

In 2022, the aggregate amount paid directly or indirectly by TotalEnergies' French and foreign companies as compensation to TotalEnergies' executive officers in office as of December 31, 2022 (8 people, as of December 31, 2021) was €11.48 million (compared to €9.83 million in 2021). The variable component (based on economic, Safety performance and personal contribution criteria) represented 52.9% of this global amount of €11.48 million.

## 4.3.4 Stock option and performance share grants

### 4.3.4.1 GENERAL POLICY

In addition to its employee shareholding development policy, TotalEnergies SE has implemented a policy to involve employees and senior executives in its future performance which entails granting performance shares each year. TotalEnergies SE also granted stock options until 2011. These shares are granted under selective plans based on a review of individual performance at the time of each grant.

The stock option and performance share plans offered by TotalEnergies SE concern only TotalEnergies shares and no shares of the TotalEnergies listed subsidiaries or options on them are granted by the Company.

All grants are approved by the Board of Directors, on the proposal of the Compensation Committee. For each plan, the Compensation Committee recommends a list of beneficiaries, the conditions as well as the number of options or shares granted to each beneficiary. The Board of Directors then gives final approval for this list and the grant conditions.

**Grant of performance shares**

Grants of performance shares under selective plans become definitive only at the end of a three-year vesting period, subject to the fulfillment of applicable presence and performance conditions. At the end of the vesting period, the TotalEnergies shares are definitively granted to the beneficiaries, who must then hold them for at least two years. Shares definitively granted under the 2022 plan will not, however, be subject to this holding period.

**Stock options**

Stock options were granted until 2011. Since the 2011 plan, the Board of Directors has not granted any new TotalEnergies stock options, and all the stock option plans have since expired.

The 21st resolution of the Extraordinary Shareholders' Meeting on May 29, 2020, authorized the Board of Directors to grant stock options to certain Company employees and executives for a period of 38 months. This authorization was not used by the Board in 2022.

### 4.3.4.2 MONITORING OF GRANTS TO THE EXECUTIVE DIRECTORS

#### STOCK OPTIONS

As of December 31, 2022, Mr. Pouyanné did not hold any TotalEnergies stock options.

**Stock options granted in 2022 to each executive director by the issuer and by any TotalEnergies company - Table 4 – AMF position-recommendation – DOC-2021-02 (Appendix 2)**

| Executive directors | Plan N° and date | Nature of the options (purchase or subscription) | Valuation of options (€)[a] | Number of options granted during the fiscal year | Strike price | Exercise period |
|---|---|---|---|---|---|---|
| **Patrick Pouyanné** | | | | | | |
| Chairman and Chief Executive Officer | – | – | – | – | – | – |

(a) According to the method used for the Consolidated Financial Statements.

**Stock options exercised in fiscal year 2022 by each executive director - Table 5 – AMF position-recommendation – DOC-2021-02 (Appendix 2)**

| | Plan N° and date | Number of options exercised during the fiscal year | Strike price |
|---|---|---|---|
| **Patrick Pouyanné** | | | |
| Chairman and Chief Executive Officer | – | – | – |

#### GRANT OF PERFORMANCE SHARES

Mr. Pouyanné is granted performance shares as part of the broader grant plans approved by the Board of Directors for certain Company employees. The performance shares granted to him are subject to the same requirements applicable to the other beneficiaries of the grant plans.

## SUMMARY TABLES

**Shares granted to each director[(a)] in fiscal year 2022 by the issuer and by any TotalEnergies company - Table 6 – AMF position-recommendation – DOC-2021-02 (Appendix 2)**

| Executive and non-executive directors | Plan N° and date | Number of shares granted during the fiscal year | Valuation of the shares (€)[(b)] | Acquisition date | Date of transferability | Performance conditions |
|---|---|---|---|---|---|---|
| **Patrick Pouyanné**<br>Chairman and Chief Executive Officer | 2022 Plan<br>03/16/2022 | 100,000 | 2,977,600 | 3/17/2025 | 3/17/2025 | – For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return (TSR) during the three vesting years (2022, 2023 and 2024). The TSR considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.<br>– For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share expressed in dollars during the three vesting years (2022, 2023 and 2024).<br>– For 20% of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2022, 2023 and 2024). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[(c)]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.<br>– For 15% of the shares, the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for fiscal years 2022, 2023 and 2024.<br>– For 15% of the shares, the criterion of the change in the indirect greenhouse gas (GHG) emissions related to the use by customers of the energy products (Scope 3[(d)]) in Europe according to the achievement of the target to reduce these GHG emissions, set for fiscal years 2022, 2023 and 2024. |
| **Valérie Della Puppa Tibi**<br>Director representing employee shareholders until May 25, 2022 | 2022 Plan<br>03/16/2022 | – | – | – | – | |
| **Romain Garcia-Ivaldi**<br>Director representing employees since June 9, 2020 | 2022 Plan<br>03/16/2022 | – | – | – | – | |
| **Emma de Jonge**<br>Director representing employee shareholders since May 25, 2022 | 2022 Plan<br>03/16/2022 | n/a | n/a | n/a | n/a | |
| **Angel Pobo**<br>Director representing employees since October 14, 2020 | 2022 Plan<br>03/16/2022 | – | – | – | – | |
| **TOTAL** | | **100,000** | **2,977,600** | | | |

(a) List of executive and non-executive directors who had this status during fiscal year 2022.
(b) In accordance with the accounting of the performance shares for fiscal year 2022 in accordance with IFRS 2 which takes into account an award rate hypothesis of 80% at the end of the acquisition period, this amount corresponds to the shares granted in 2022, valued on the basis of a unit fair value of 37.22 euros. This fair value was calculated in accordance with IFRS 2 on the grant date of the plan, *i.e.*, March 16, 2022, on the basis of a closing price of the TotalEnergies share on that date of 45.54 euros.
(c) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(d) GHG Protocol - Category 11.

**Shares that have become transferable for each director[(a)] - Table 7 – AMF position-recommendation – DOC-2021-02 (Appendix 2)**

| Executive and non-executive directors | Plan N° and date | Number of shares that became transferable during fiscal year 2022 | Vesting conditions |
|---|---|---|---|
| **Patrick Pouyanné** | 2019 Plan | | The performance conditions are based for: |
| Chairman and Chief Executive Officer | 03/13/2019 | 71,208 | – For 1/3 of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP et Chevron) based on the TSR criterion during the three vesting years (2019, 2020 and 2021). The TSR considered is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.<br>– For 1/3 of the shares, the Corporation's ranking each year against its peers (ExxonMobil, Shell, BP et Chevron) using the annual variation in net cash flow per share criterion expressed in dollars during the three vesting years (2019, 2020 and 2021).<br>– For 1/3 of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2019, 2020 and 2021). |
| **Valérie Della Puppa Tibi** | | | |
| Director representing employee shareholders until May 25, 2022 | 2019 Plan 03/13/2019 | – | |
| **Romain Garcia-Ivaldi** | | | |
| Director representing employees since June 9, 2020 | 2019 Plan 03/13/2019 | – | |
| **Emma de Jonge** | | | |
| Director representing employee shareholders since May 25, 2022 | 2019 Plan 03/13/2019 | n/a | |
| **Angel Pobo** | | | |
| Director representing employees since October 14, 2020 | 2019 Plan 03/13/2019 | 200 | |

(a) List of executive and non-executive directors who had this status during fiscal year 2022.

For the 2019 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion, the annual change in net cash flow per share and the organic *cash* breakeven before dividends was 98.9%.

### 4.3.4.3 FOLLOW-UP OF TotalEnergies STOCK OPTION PLANS AS OF DECEMBER 31, 2022

Since the 2011 plan, the Board of Directors has not granted any new TotalEnergies stock options, and all the stock option plans have since expired.

**History of TotalEnergies stock option grants – Information on stock options - Table 8 – AMF position - recommendation – DOC-2021-02 (Appendix 2)**

| | Plan |
|---|---|
| TotalEnergies stock option grants | none |
| Date of the Shareholders' Meeting | – |
| Date of Board meeting/grant date | – |
| **Total number of options granted by the Board of Directors, including to:** | – |
| Executive and non-executive directors[(a)] | – |
| – *P. Pouyanné* | none |
| – *V. Della Puppa Tibi* | none |
| – *R. Garcia Ivaldi* | none |
| – *E. de Jonge* | none |
| – *A. Pobo* | none |
| Date as of which the options may be exercised: | – |
| Expiry date | – |
| Subscription or purchase price*(€)* | – |
| **Cumulative number of options exercised/subscribed as of December 31, 2022** | **–** |
| **Cumulative number of options canceled or expired as of December 31, 2022** | **–** |
| **Number of options remaining at the end of the year** | – |

(a) List of executive and non-executive directors who had this status during fiscal year 2022.

**Stock options granted to the ten employees (other than executive or non-executive directors) receiving the largest number of options/Stock options exercised by the ten employees (other than executive or non-executive directors) exercising the largest number of options - Table 9 - AMF position-recommendation - DOC-2021-02 (Appendix 2)**

| | Total number of options granted/exercised | Weighted average strike price (€) | Plan |
|---|---|---|---|
| Options granted in fiscal year 2022 by TotalEnergies SE and its affiliates[(a)] to the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors) receiving the largest number of options (aggregate – not individual information) | – | – | none |
| Options held on TotalEnergies SE and its affiliates[(a)] and exercised in fiscal year 2022 by the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of shares (aggregate – not individual information) | – | – | none |

(a) Pursuant to the conditions of Article L. 225-180 of the French Commercial Code.

### 4.3.4.4 FOLLOW-UP OF TotalEnergies PERFORMANCE SHARE GRANTS AS OF DECEMBER 31, 2022

#### BREAKDOWN HISTORY OF TotalEnergies PERFORMANCE SHARE GRANTS BY CATEGORY OF BENEFICIARY

The following table gives a breakdown of TotalEnergies performance share grants by category of beneficiary (executive officers, other senior executives and other employees):

| | | Number of beneficiaries | Number of notified shares | Percentage | Average number of options per beneficiary |
|---|---|---|---|---|---|
| **2018 Plan[(a)]** | Executive officers[(b)] | 13 | 301,000 | 5.0% | 23,154 |
| Decision of the Board of Directors of March 14, 2018 | Senior executives | 288 | 1,443,900 | 23.7% | 5,014 |
| | Other employees[(c)] | 10,344 | 4,338,245 | 71.3% | 419 |
| | **TOTAL** | **10,645** | **6,083,145** | **100%** | **571** |
| **2019 Plan[(a)]** | Executive officers[(b)] | 13 | 326,500 | 5.1% | 25,115 |
| Decision of the Board of Directors of March 13, 2019 | Senior executives | 290 | 1,514,000 | 23.5% | 5,221 |
| | Other employees[(c)] | 10,730 | 4,606,569 | 71.5% | 429 |
| | **TOTAL** | **11,033** | **6,447,069** | **100%** | **584** |
| **2020 Plan[(a)]** | Executive officers[(b)] | 13 | 303,700 | 4.5% | 23,362 |
| Decision of the Board of Directors of March 18, 2020 | Senior executives | 292 | 1,580,400 | 23.5% | 5,412 |
| | Other employees[(c)] | 10,838 | 4,843,252 | 72.0% | 447 |
| | **TOTAL** | **11,143** | **6,727,352** | **100%** | **604** |
| **2021 Plan** | Executive officers[(b)] | 8 | 272,000 | 4.0% | 34,000 |
| Decision of the Board of Directors of March 17, 2021, with effect from May 28, 2021 | Senior executives | 280 | 1,579,100 | 23.3% | 5,640 |
| | Other employees[(c)] | 11,039 | 4,913,448 | 72.6% | 445 |
| | **TOTAL** | **11,327** | **6,764,548** | **100%** | **579** |
| **2022 Plan** | Executive officers[(b)] | 8 | 284,000 | 4% | 35,500 |
| Decision of the Board of Directors of March 16, 2022 | Senior executives | 275 | 1,683,000 | 23% | 6,120 |
| | Other employees[(c)] | 11,494 | 5,386,271 | 73% | 469 |
| | **TOTAL** | **11,777** | **7,353,271** | **100%** | **624** |

(a) For the 2018 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion and the annual change in net cash flow per share, was 70%. For the 2019 plan, the vesting rate of shares granted, subject to performance conditions, linked to the TSR criterion, the annual change in net cash flow per share and the organic *cash* breakeven, was 98.9%. For the 2020 plan, the vesting rate of granted shares, subject to performance conditions, linked to the TSR, the annual variation of the net cash flow per share, the organic cash breakeven point and to greenhouse Gas (GHG) emissions from operated facilities (Scope 1+2), was 100%.
(b) The executive officers as of the date of the Board meeting authorizing the grant.
(c) Ms. Della Puppa Tibi is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders from May 29, 2019 to May 25, 2022, and was not granted any shares under the 2020 to 2022 plans. Mr. Garcia-Ivaldi is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since June 9, 2020, and was not granted any shares under the 2021 and 2022 plan. Ms. de Jonge is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders since May 25, 2022. Mr. Pobo is a TotalEnergies SE employee and TotalEnergies SE director representing employees since October 14, 2020 and was granted 250 shares under the 2021 plan and none under the 2022 plan.

The breakdown of TotalEnergies performance share grants by gender and category of beneficiary is as follows:

| | | Percentage of beneficiaries by gender and by category of beneficiaries | | Average number of performance shares granted by beneficiary | |
|---|---|---|---|---|---|
| | | Men | Women | Men | Women |
| **2018 Plan** | Senior management (JL 15+)[a] | 85% | 87% | 1,363 | 1,416 |
| | JL 10 to 14 | 26% | 26% | 277 | 261 |
| | JL 9- | 2% | 2% | 119 | 121 |
| **2019 Plan** | Senior management (JL 15+)[a] | 83% | 91% | 1,392 | 1,405 |
| | JL 10 to 14 | 24% | 26% | 288 | 264 |
| | JL 9- | 2% | 2% | 122 | 122 |
| **2020 Plan** | Senior management (JL 15+)[a] | 83% | 86% | 1,444 | 1,453 |
| | JL 10 to 14 | 24% | 24% | 299 | 279 |
| | JL 9- | 2% | 2% | 126 | 130 |
| **2021 Plan** | Senior management (JL 15+)[a] | 83% | 87% | 1,406 | 1,492 |
| | JL 10 to 14 | 24% | 25% | 298 | 282 |
| | JL 9- | 2% | 2% | 127 | 127 |
| **2022 Plan** | Senior management (JL 15+)[a] | 82% | 88% | 1,524 | 1,656 |
| | JL 10 to 14 | 26% | 27% | 328 | 309 |
| | JL 9- | 2% | 2% | 138 | 139 |

(a) Including senior executives.
JL: Job level of the position according to the Hay method (unique classification and job evaluation reference).

The performance shares, which were previously bought back by the Corporation on the market, are definitively granted to their beneficiaries at the end of a three-year vesting period from the grant date.

The vesting of performance shares is subject to a presence condition and performance conditions.

For the 2022 plan, the applicable performance conditions are the following:

- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the Total Shareholder Return (TSR) during the three vesting years (2022, 2023 and 2024). The TSR in question is that of the last quarter of the year, the dividend being considered reinvested based on the closing price on the ex-dividend date.
- For 25% of the shares, the Corporation's ranking against its peers (ExxonMobil, Shell, BP and Chevron) based on the annual variation in net cash flow per share expressed in dollars during the three vesting years (2022, 2023 and 2024).
- For 20% of the shares, the level reached by the pre-dividend organic cash breakeven with regard to the target set for the three vesting years (2022, 2023 and 2024). The pre-dividend organic cash breakeven is defined as the Brent price for which the operating cash flow before working capital changes (MBA) covers the organic investments[1]. The ability of the Company to resist to the variations of the Brent barrel price is measured by this parameter.
- For 15% of the shares, the criterion of the change in the greenhouse gas (GHG) emissions from operated facilities (Scope 1+2) with regard to the achievement of the target to reduce the GHG emissions set for fiscal years 2022, 2023 and 2024.
- For 15% of the shares, the criterion of the change in the indirect greenhouse gas (GHG) emissions related to the use by customers of the energy products (Scope 3[2]) in Europe for the achievement of the target to reduce these GHG emissions set for fiscal years 2022, 2023 and 2024.

(1) Organic investments: net investments excluding acquisitions, asset sales and other operations with non-controlling interests.
(2) GHG protocol - Category 11.

## BREAKDOWN HISTORY OF TotalEnergies PERFORMANCE SHARE PLANS

**History of TotalEnergies performance share grants – Information on performance shares granted – Table 10 – AMF Position-recommendation – DOC-2021-02 (Appendix 2)**

| | 2018 Plan | 2019 Plan | 2020 Plan | 2021 Plan | 2022 Plan |
|---|---|---|---|---|---|
| **Date of the Shareholders' Meeting** | **05/24/2016** | **06/01/2018** | **06/01/2018** | **06/01/2018** | **5/28/2021** |
| **Date of Board meeting/grant date** | **03/14/2018** | **03/13/2019** | **03/18/2020** | **05/28/2021** | **3/16/2022** |
| Closing price on grant date | €47.030 | €51.210 | €21.795 | €38.145 | €45.540 |
| Average purchase price per share paid by the Corporation | €40.23 | €45.13 | €57.70 | €59.86 | n/a |
| Total number of performance shares granted, including to: | 6,083,145 | 6,447,069 | 6,727,352 | 6,764,548 | 7,353,271 |
| Executive and non-executive directors[(a)] | 72,280[(b)] | 72,280[(b)] | 72,300[(b)] | 90,250 | 100,000 |
| – *P. Pouyanné* | *72,000* | 72,000 | 72,000 | *90,000* | *100,000* |
| – *V. Della Puppa Tibi* | n/a | n/a | – | – | – |
| – *R. Garcia-Ivaldi* | n/a | n/a | n/a | – | – |
| – *E. de Jonge* | n/a | n/a | n/a | n/a | *n/a* |
| – *A. Pobo* | n/a | n/a | n/a | 250 | – |
| Start of the vesting period | 03/14/2018 | 03/13/2019 | 03/18/2020 | 05/28/2021 | 3/16/2022 |
| Definitive grant date, subject to the conditions set (end of the vesting period) | 03/15/2021 | 03/14/2022 | 03/20/2023 | 05/29/2024 | 3/17/2025 |
| Vesting rate after determination of the performance conditions: | | | | | |
| – *Executive director* | *70%* | *98.9%* | *100%* | *n/a* | *n/a* |
| – *Employees* | *70%* | *98.9%* | *100%* | *n/a* | *n/a* |
| Total number of performance shares definitively granted[(c)] at the end of the vesting period, including: | 4,578,150 | 6,177,104 | 6,462,072 | n/a | n/a |
| – *P. Pouyanné* | *50,400* | *71,208* | *72,000* | *n/a* | *n/a* |
| Disposal possible from (end of the lock-up period) | 03/16/2023 | 03/15/2024 | 03/21/2025 | 05/30/2026 | 03/17/2025 |
| **Number of performance shares granted:** | | | | | |
| – *Outstanding as of January 1, 2022* | | *6,289,076* | *6,653,202* | *6,732,740* | |
| – *Notified in 2022* | | | | | *7,353,271* |
| – *Canceled in 2022* | | *(127,852)* | *(65,561)* | *(57,410)* | *(27,690)* |
| – *Definitively granted in 2022* | | *(6,161,224)* | *(12,680)* | *(13,750)* | *(8,000)* |
| **OUTSTANDING AS OF DECEMBER 31, 2022** | **–** | **–** | **6,574,961** | **6,661,580** | **7,317,581** |

(a) List of executive and non-executive directors who had this status during fiscal year 2022. Ms. Della Puppa Tibi is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders from May 29, 2019 to May 25, 2022. Mr. Garcia-Ivaldi is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since June 9, 2020. Ms. de Jonge is a TotalEnergies SE employee and a TotalEnergies SE director representing employee shareholders since May 25, 2022. Mr. Pobo is a TotalEnergies SE employee and a TotalEnergies SE director representing employees since October 14, 2020.
(b) The number of performance shares granted to executive and non-executive directors includes performance shares granted to executive and non-executive directors (directors representing employees or directors representing employee shareholders) who had this quality at the grant date.
(c) Shares definitively granted include early grants following the death of the beneficiaries of shares for the respective plan.

If all the performance shares outstanding at December 31, 2022, were definitively granted, they would represent 0.78%[(1)] of the Corporation's share capital on that date.

**Performance shares granted to the 10 employees (other than executive and non-executive directors) receiving the largest number of performance shares granted**

| | Number of performance shares notified/ definitively granted | Award date | Definitive grant date (end of the vesting period) | Date of transferability (end of the lock-up period) |
|---|---|---|---|---|
| Performance share granted by decision of the Board of Directors at its meeting on March 16, 2022 to the 10 employees of TotalEnergies SE and its affiliates (other than executive or non-executive directors at the date of the exercises) who purchased or subscribed for the largest number of performance shares[(a)] | 230,000 | 03/16/2022 | 03/17/2025 | 03/17/2025 |
| Performance shares definitively granted in fiscal year 2022 to the 10 employees of TotalEnergies SE and its affiliates (other than executive and non-executive directors on the date of the decision) receiving the largest number of performance shares | 152,802 | 03/13/2019 | 03/14/2022 | 03/15/2024 |

(a) These shares will be definitively granted to their beneficiaries at the end of a three-year vesting period, *i.e.*, on Monday, March 17, 2025, subject to five performance conditions being met. In the absence of a holding period, the shares can be disposed of as soon as they are granted, *i.e.*, on March 17, 2025.

(1) On the basis of a share capital divided into 2,619,131,285 shares.

# 4.4 Additional information about corporate governance

## 4.4.1 Regulated agreements and undertakings and related party transactions

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

### REGULATED AGREEMENTS AND UNDERTAKING

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

In addition, to TotalEnergies' knowledge, there exists no agreement, other than the agreements related to its ordinary course of business and signed under normal conditions, engaged, directly or through an intermediary, between, on the one hand, any director or shareholder holding more than 10% of TotalEnergies SE's voting rights and, on the other hand, a company controlled by TotalEnergies SE within the meaning of Article L. 233-3 of the French Commercial Code.

### RELATED-PARTY TRANSACTIONS

Details of related-party transactions as specified by the regulations adopted under EC regulation 1606/2002, entered into by TotalEnergies' companies during fiscal years 2020, 2021 or 2022, are provided in Note 8 of the notes to the Consolidated Financial Statements (refer to point 8.7 of chapter 8). These transactions primarily concern equity affiliates and non-consolidated companies.

## 4.4.2 Delegations of authority and powers granted to the Board of Directors with respect to share capital increases and authorization for share cancellation

**Table compiled in accordance with Article L. 225-37-4, 3° of the French Commercial Code summarizing the use of delegations of authority and powers granted to the Board of Directors with respect to share capital increases during fiscal year 2022**

| Type | | Cap on par value, or number of shares or expressed as % of share capital | Use in 2022 by value or number of shares | Available balance as of 12/31/2022 by value or number of shares[a] | Date of the delegation of authority or authorization by the Extraordinary Shareholders' Meeting | Expiry date and term of authorization granted to the Board of Directors |
|---|---|---|---|---|---|---|
| Maximum cap for the issuance of securities granting immediate or future rights to share capital | Securities representing debt securities giving rights to a portion of share capital | €10bn in securities | – | €10bn | May 25, 2022 (17th, 18th, 19th and 21st resolutions) | July 25, 2024 26 months |
| | Share capital par value | An overall cap of €2.5bn (i.e., a maximum of 1,000 million shares issued with a preemptive subscription right), from which can be deducted: | 18 million shares | €2.455 bn (i.e., 982 million shares) | May 25, 2022 (17th resolution) | July 25, 2024 26 months |
| | | 1/ a specific cap of €650 million, i.e. a maximum of 260 million shares for issuances without a preferential subscription right (with potential use of an extension clause), including in compensation with securities contributed within the scope of a public exchange offer, provided that they meet the requirements of Article L. 22-10-54 of the French Commercial Code, from which can be deducted: | – | €650 million | May 25, 2022 (18th and 20th resolutions) | July 25, 2024 26 months |
| | | 1a/ a sub-cap of €650 million with a view to issuing, through an offer as set forth in Article L. 411-2-1 of the French Monetary and Financial Code, shares and securities resulting in a share capital increase, without a shareholders' preemptive subscription right | – | €650 million | May 25, 2022 (19th and 20th resolutions) | July 25, 2024 26 months |
| | | 1b/ a sub-cap of €650 million through in-kind contributions when the provisions of Article L. 22-10-54 of the French Commercial Code are not applicable | – | €650 million | May 25, 2022 (21st resolution) | July 25, 2024 26 months |
| | | 2/ a specific cap of 1.5% of the share capital on the date of the Board[c] decision for share capital increases reserved for employees participating in a Company savings plan | 18 million shares[b] | 21.3 million shares | May 25, 2022 (22nd resolution) | July 25, 2024 26 months |
| Stock options granted to Company employees and to executive directors | | 0.75% of share capital on the date of the Board decision to grant options | – | 19.6 million shares | May 29, 2020 (21st resolution) | July 29, 2023 38 months |
| Performance shares granted to Company employees and to executive directors | | 1% of share capital on the date of the Board decision to grant the shares | 7.4 million shares | 18.8 million shares[c] | May 28, 2021 (16th resolution) | July 28, 2024 38 months |

(a) Based on share capital as of December 31, 2022, divided into 2,619,131,285 shares.

(b) The meeting of the Board of Directors on September 22, 2022 decided to proceed with a share capital increase in 2023 with a cap of 18,000,000 shares (subscription to the shares under this operation is planned for the second quarter of 2023, subject to the decision of the Chairman and Chief Executive Officer). As a result, the available balance under this authorization amounts to 21,286,969 shares as of December 31, 2022.

(c) The number of shares that may be granted under the 16th resolution of the Extraordinary Shareholders' Meeting held on May 28, 2021 may not exceed 1% of the share capital on the date of the Board of Directors' decision. In addition, the shares granted pursuant to the presence and performance conditions to the Executive Directors under the 16th resolution of the Extraordinary Shareholders' Meeting held on May 28, 2021, may not exceed 0.015% of the capital existing on the date of the Board meeting that decided on the grant, *i.e.*, 392,869 shares based on share capital as of December 31, 2022.

### USE OF THE AUTHORIZATION TO CANCEL SHARES OF THE CORPORATION DURING FISCAL YEAR 2022

Pursuant to the terms of the 23rd resolution of the Shareholders' Meeting held on May 25, 2022, the Board of Directors is authorized to cancel shares of the Corporation up to a maximum of 10% of the share capital of the Corporation existing as of the date of the operation within a 24-month period.

At its meeting on February 7, 2023, the Board of Directors used this authorization and decided to reduce the share capital of the Corporation by canceling 128,869,261 treasury shares. On February 7, 2023, the share capital of the Corporation was therefore 6,225,655,060.00 euros, divided into 2,490,262,024 shares, each with a nominal value of 2.5 euros.

Pursuant to the terms of the 13th resolution of the Shareholders' Meeting held on May 26, 2017, which expired after the Annual Shareholders' Meeting on May 25, 2022, the Board of Directors was authorized to cancel shares of the Corporation up to a maximum of 10% of the share capital of the Corporation existing as of the date of the operation within a 24-month period.

Pursuant to this authorization, the Board of Directors decided, on February 9, 2022, to reduce the share capital of the Corporation by canceling 30,665,526 treasury shares.

## 4.4.3 Provisions of the Articles of Association governing shareholders' participation in Shareholders' Meetings

The Corporation's Articles of Association amended as a result of the change of corporate name of the Corporation were approved by the Annual Shareholders' Meeting of May 28, 2021. The statutory provisions of TotalEnergies SE presented below are those resulting from the Articles of Association of TotalEnergies SE.

### 4.4.3.1 CALLING OF SHAREHOLDERS TO SHAREHOLDERS' MEETINGS

Shareholders' Meetings are convened and conducted under the conditions provided for by law.

The Board of Directors, the statutory auditor or a court-appointed representative can ask for a meeting to be convened, as well as one or more shareholders together holding at least 5% of the share capital.

The Ordinary Shareholders' Meeting is convened to take any decisions that do not modify the Corporation's Articles of Association. It is held at least once a year within six months of the closing date of each fiscal year to approve the financial statements of that year. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one fifth of the shares that confer voting rights. No quorum is required at its second meeting. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Ordinary Shareholders' Meeting rules by a majority of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

Only the Extraordinary Shareholders' Meeting is authorized to modify the Articles of Association. It may not, however, increase shareholders' commitments. It may only deliberate, at its first meeting, if the shareholders present, represented or participating by remote voting hold at least one quarter, and, at the second meeting, one fifth of the shares that confer voting rights. In accordance with regulation (EC) 2157/2001 on the Statute for a European company (SE), the Extraordinary Shareholders' Meeting rules by a majority of two thirds of votes cast by the shareholders present or represented by proxy. The votes cast do not include those attached to shares in which the shareholder did not take part in the vote, abstained, or returned a blank or invalid vote.

One or more shareholders holding a certain percentage of the Corporation's share capital (calculated using a decreasing scale based on the share capital) may ask for items or draft resolutions to be added to the agenda of a Shareholders' Meeting under the terms and conditions and within the deadlines set forth by the French Commercial Code. Requests to add items or draft resolutions to the agenda must be sent no later than 20 days after the publication of the notice of meeting that the Corporation must publish in the French official journal of legal notices (*Bulletin des annonces légales obligatoires*, BALO). Any request to add an item to the agenda must be justified. Any request to add a draft resolution must be accompanied by the draft resolution text and brief summary of the grounds for this request. Requests made by shareholders must be accompanied by a proof of their share ownership as well as their ownership of the portion of capital as required by the regulations. Review of the item or draft resolution filed pursuant to regulatory conditions is subject to those making the request providing a new attestation justifying the shares being recorded in a book-entry form in the same accounts on the second business day preceding the date of the meeting.

The Central Social and Economic Committee may also request the addition of draft resolutions to the meeting agendas under the terms and conditions and within the deadlines set by the French Labor Code. In particular, requests to add draft resolutions must be sent within 10 business days following the date on which the notice of meeting was published.

### 4.4.3.2 ADMISSION OF SHAREHOLDERS TO SHAREHOLDERS' MEETINGS

Participation in any form in Shareholders' Meetings is subject to registration of the shares, either in the registered account maintained by the Corporation (or its securities agent) or recorded in bearer form in a securities account maintained by a financial intermediary. Proof of this registration is obtained under a certificate of participation (*attestation de participation*) delivered to the shareholder. Registration of the shares must be effective no later than midnight (Paris time) on the second business day preceding the date of the Shareholders' Meeting. If the shares are sold or transferred prior to this record date, the certificate of participation will be canceled, and the votes sent by mail and proxies sent to the Corporation will be canceled accordingly. If shares are sold or transferred after this record date, the certificate of participation will remain valid and votes cast or proxies granted will be taken into account.

## 4.4.4 Information regarding factors likely to have an impact in the event of a public takeover or exchange offer

In accordance with Article L. 22-10-11 of the French Commercial Code, information relating to factors likely to have an impact in the event of a public offering is provided below.

- **Structure of the share capital**

The structure of the Corporation's share capital as well as the interests that the Corporation is aware of pursuant to Articles L. 233-7 and L. 233-12 of the French Commercil Code are presented in points 6.4.1 to 6.4.3 in chapter 6.

- **Restrictions on the exercise of voting rights and transfers of shares provided in the Articles of Association – Clauses of the agreements of which the Corporation has been informed in accordance with Article L. 233-11 of the French Commercial Code**

  The provisions of the Articles of Association relating to shareholders' voting rights are mentioned in point 7.2.4 of chapter 7. The Corporation has not been informed of any clauses as specified in paragraph 2 of Article L. 22-10-11 of the French Commercial Code.

- **Holders of securities conferring special control rights**

  Article 18 of the Articles of Association stipulates that double voting rights are granted to all the registered shares held in the name of the same shareholder for at least two years. Subject to this condition, there are no securities conferring special control rights as specified in paragraph 4 of Article L. 22-10-11 of the French Commercial Code.

- **Control mechanisms provided for in an employee shareholding system**

  The rules relating to the exercise of voting rights within the Corporation collective investment funds are presented in point 6.4.2 of chapter 6.

- **Shareholder agreements of which the Corporation is aware and that could restrict share transfers and the exercise of voting rights**

  The Corporation is not aware of any agreements between shareholders as specified in paragraph 6 of Article L. 22-10-11 of the French Commercial Code which could result in restrictions on the transfer of shares and exercise of the voting rights of the Corporation.

- **Rules applicable to the appointment and replacement of members of the Corporation's Board of Directors and amendment of the Articles of Association**

  No provision of the Articles of Association or agreement made between the Corporation and a third party contains a specific provision relating to the appointment and/or replacement of the Corporation's directors that is likely to have an impact in the event of a public offering.

- **Powers of the Board of Directors in the event of a public offering**

  The delegations of authority or authorizations granted by the Shareholders' Meeting that are currently in effect limit the powers of the Board of Directors during public offering on the Corporation's shares.

- **Agreements to which the Corporation is party and which are amended or terminated in the event of a change of control of the Corporation – Agreements providing for the payment of compensation to members of the Board of Directors or employees in the event of their resignation or dismissal without real and serious grounds or if their employment were to be terminated as a result of a public offering**

  Although a number of agreements made by the Corporation contain a change in control clause, the Corporation believes that there are no agreements provided for in paragraph 9 of Article L. 22-10-11 of the French Commercial Code. The Corporation also believes that there are no agreements provided for in paragraph 10 of Article L. 22-10-11 of the French Commercial Code. For commitments made for the Chairman and Chief Executive Officer in the event of a forced departure owing to a change of control or strategy, refer to point 4.3.2 of this chapter.

## 4.4.5 Statutory auditors

### 4.4.5.1 AUDITOR'S TERM OF OFFICES

The Shareholders' Meeting on May 25, 2022, decided to renew the term of office of Ernst & Young Audit as statutory auditor for a new six-year term. It also decided on the appointment of PricewaterhouseCoopers Audit as statutory auditor, in replacement of the KPMG audit firm who has been the Corporation's auditors for 20 years and whose audit firm could no longer be renewed under the rules for the rotation of auditors resulting from the European audit reform.

French law (Article L. 823-3 of the French Commercial Code) provides that the auditors are appointed for renewable six-fiscal year terms. The terms of office of the statutory auditors and of the alternate auditors will expire at the end of the Shareholders' Meeting to be convened in 2028 to approve the financial statements for fiscal year 2027.

The statutory auditors of the Corporation are:

**ERNST & YOUNG Audit**

1/2, place des Saisons, 92400 Courbevoie – Paris-La Défense, Cedex 1

Appointed: May 14, 2004

Last reappointment: May 25, 2022, for a six-fiscal year term

Laurent Vitse, Stéphane Pédron

**PricewaterhouseCoopers Audit**

63, rue de Villiers, 922008 Neuilly-sur-Seine

Appointed: May 25, 2022, for a six-fiscal year term

Cécile Saint-Martin, Olivier Lotz

### 4.4.5.2 FEES RECEIVED BY THE STATUTORY AUDITORS (INCLUDING MEMBERS OF THEIR NETWORKS)

| | ERNST & YOUNG Audit | | | | PricewaterhouseCoopers Audit | | | | KPMG S.A. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount in M$ (excluding VAT) | | % | | Amount in M$ (excluding VAT) | | % | | Amount in M$ (excluding VAT) | | % | |
| | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 |
| **Audit** | | | | | | | | | | | | |
| Statutory auditors, certification, examination of the parent company and consolidated accounts | 27.8 | 22.8 | 77.5 | 78.1 | – | 16.4 | – | 87.1 | 22.9 | 1.8 | 75.0 | 31.6 |
| TotalEnergies SE | 3.9 | 5.3 | 11.0 | 18.0 | – | 2.8 | – | 14.7 | 4.0 | 1.7 | 13.1 | 29.8 |
| Fully consolidated subsidiaries | 23.9 | 17.5 | 66.5 | 60.1 | – | 13.6 | – | 72.4 | 18.9 | 0.1 | 61.9 | 1.8 |
| Services other than statutory audit – Audit-related services | 4.0 | 2.6 | 11.2 | 9.0 | – | 0.3 | – | 1.8 | 4.5 | 1.5 | 14.6 | 26.3 |
| TotalEnergies SE | 0.2 | 0.3 | 0.7 | 1.0 | – | 0.0 | – | 0.3 | 1.8 | 0.4 | 5.9 | 7.0 |
| Fully consolidated subsidiaries | 3.8 | 2.3 | 10.5 | 8.0 | – | 0.3 | – | 1.6 | 2.7 | 1.1 | 8.7 | 19.3 |
| **SUBTOTAL** | **31.8** | **25.4** | **88.7** | **87.1** | **–** | **16.7** | **–** | **89.0** | **27.3** | **3.3** | **89.6** | **57.9** |
| **Other services provided by the networks** | | | | | | | | | | | | |
| Legal, tax, labor law | 3.7 | 3.0 | 10.4 | 10.2 | – | 1.3 | – | 6.9 | 2.1 | 1.3 | 6.8 | 22.8 |
| Other | 0.4 | 0.8 | 0.9 | 2.7 | – | 0.8 | – | 4.2 | 1.1 | 1.1 | 3.6 | 19.3 |
| **SUBTOTAL** | **4.1** | **3.8** | **11.3** | **12.9** | **–** | **2.1** | **–** | **11.0** | **3.2** | **2.4** | **10.4** | **42.1** |
| **TOTAL** | **35.9** | **29.1** | **100** | **100** | **–** | **18.8** | **–** | **100** | **30.5** | **5.7** | **100** | **100** |

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

TotalEnergies

# 5

# Non-financial performance

Chapter 5 of this Universal Registration Document constitutes the consolidated statement of non-financial performance as per Articles L. 22-10-36 and L. 225-102-1 of the French Commercial Code and discloses how the Corporation and the entities included in the scope of consolidation, in accordance with Article L. 233-16 of the French Commercial Code, take into account the social and environmental consequences of their activities, as well as the effects of those activities with regard to respect for human rights and fighting corruption and tax evasion.

Pursuant to the aforementioned Articles, this statement also includes information about the impact on climate change of the Corporation's activity and the use of the goods and services that it produces; its societal commitments in order to promote sustainable development and the circular economy; the collective agreements in place within the Corporation and their impact on the Corporation's financial performance as well as on employees' working conditions; actions aimed at fighting discrimination and promoting diversity; and the measures taken on behalf of people with disabilities[1].

This statement of non-financial performance was prepared with the assistance of several of the Corporation's corporate functional divisions, in particular the Legal, Finance, People & Social Engagement and Strategy & Sustainability Divisions. The statement was reviewed by the Audit Committee and was thereafter approved by the Board of Directors.

The data presented in the statement of non-financial performance are provided on a current-scope basis. The reporting scopes and methodology concerning the information in this chapter are presented in point 5.11 of this chapter.

# 5.1 Sustainable development at the heart of the strategy

## TotalEnergies' AMBITION FOR SUSTAINABLE DEVELOPMENT

TotalEnergies aims to be a major player in the energy transition and to achieve carbon neutrality (net zero emissions) by 2050, together with society (refer to points 1.2 to 1.4 of chapter 1).

TotalEnergies is present in close to 130 countries. The nature of its activities and its geographical footprint in sometimes complex environments place the Company at the junction of a range of society's concerns relating to people, the environment and business ethics. TotalEnergies places sustainable development in all its dimensions at the heart of its strategy, its projects and operations in order to contribute to the well-being of the population.

### A Code of Conduct that affirms the Company's values and principles of action

TotalEnergies is guided by its values and operating principles, which apply to the conduct of its operations. These are described in the Code of Conduct and are binding on all subsidiaries and employees. The Code of Conduct specifies that TotalEnergies abides by the OECD Guidelines for Multinational Enterprises as well as the principles of the United Nations Global Compact, and that the Company is committed to respecting internationally recognized human rights. It states the Company's commitments and expectations for each of its stakeholders and serves as a reference for employees and any other person working on behalf of the Company. It also describes the procedures in place to allow everyone to express their concern about the implementation of the Code of Conduct.

### Open dialogue with stakeholders

TotalEnergies sets up dialogue procedures based on the consultation and involvement of stakeholders in order to develop constructive and transparent relations with them. This dialogue contributes to identifying the main risks and impacts of the Company's operations and, more generally, to a better understanding of changing trends and to better account being taken of the main societal expectations of each of the major stakeholder categories.

| Employees | | More information |
|---|---|---|
| Main stakeholders | – More than 100,000 employees<br>– Employee representative bodies<br>– Trade unions and employee associations | Sections 5.6 and 3.6 |
| Main modalities of dialogue | – Surveys and questionnaires<br>– Negotiation, concertation, consultation or information of representative bodies<br>– Signing of agreements<br>– Processing of alerts | |
| Main tools and frameworks for dialogue | – TotalEnergies Survey[2]: in 2022, more than 85,600 employees participated in the last TotalEnergies Survey in 122 countries; surveys conducted within business segments<br>– Participatory approach[3]: 27,400 employees participated in 71 countries<br>– TotalEnergies European Works Council<br>– Signing of international agreements such as with IndustriALL Global Union (2015-2019)<br>– Membership of and participation in the Global Deal[4] (since 2017)<br>– Employee representative bodies and collective bargaining: 91.8% of employees had trade union representation and/or employee representation in 2022; 330 agreements signed with employee representatives worldwide were in force in 2022<br>– Whistleblowing mechanisms | |

(1) TotalEnergies has not made any specific societal commitments to prevent food waste and food poverty or to promote animal welfare and responsible, fair and sustainable food, as these are not significant issues in view of the nature of the Company's activities.
(2) Internal opinion poll for all employees worldwide allowing the Company to gather their views and expectations with regard to their working situation and their perceptions of the company, both at the local level and Company-wide.
(3) A Company-wide participatory initiative was carried out in 2022, in the form of workshops and a collaborative platform, to involve all employees in TotalEnergies' ambition for sustainable development. On the basis of the activities of each entity, this initiative was aimed to identify the SDGs on which a positive impact or progress can be made, in order to meet stakeholder expectations of the Company.
(4) Initiative of the OECD and the ILO in favor of the social dialogue.

### Employees

| Employees | | More information |
|---|---|---|
| Main entities/teams involved | – Human resources | |
| Main topics of common interest and identified expectations | – Health and safety<br>– Workplace well-being, working hours, work organization, impact of COVID-19<br>– Compensation<br>– Training, employability and skills, mobility<br>– Equal opportunity, diversity<br>– Social dialogue<br>– Respect for human rights in the workplace<br>– Social and environmental responsibility | |

### Investors and financial players

| Investors and financial players | | More information |
|---|---|---|
| Main stakeholders | – Individual shareholders<br>– Institutional investors<br>– Investor coalitions<br>– Financial and non-financial analysts<br>– Market regulators | Sections 5.4 and 6.6<br>Chapters 3, 6 and 11 |
| Main modalities of dialogue | – Financial and non-financial publications<br>– Individual or group meetings<br>– Questionnaires from rating agencies and analysts (financial and/or ESG) | |
| Main tools and frameworks for dialogue | – Investor presentations on the occasion of the publication of annual and quarterly results, at a "Strategy, Sustainability & Climate" event in March, and at the "TotalEnergies' Energy Outlook" and "Strategy & Outlook" events in September<br>– Approximately 1,200 meetings held (individual interviews and roadshows) including 250 exchanges dedicated to ESG topics<br>– Written answers to commitment letters from investors or shareholders groups such as Climate Action 100+<br>– Annual Shareholders' Meeting: answers given to the questions asked online via the dedicated platform, answers given to written questions. For the 2022 Shareholders' Meeting, the Board of Directors submitted the Sustainability & Climate Progress Report 2022 to the shareholders of TotalEnergies SE for their opinion. The report tells of the progress made towards achieving the Company's ambition for sustainable development and the energy transition towards carbon neutrality and related targets by 2030 (resolution approved by more than 89% of the votes cast)<br>– An ISO 9001 certified team dedicated to relationships with individual shareholders and offering a comprehensive communication package, featuring dedicated direct-line, email address, and postal address<br>– Shareholders' Circle<br>– Shareholder Advisory Committee | |
| Main entities/teams involved | – Executive management<br>– Finance Department; Investor Relations; Individual Shareholder Relations<br>– Legal Department | |
| Main topics of common interest and identified expectations | – Corporate governance<br>– Financial and non-financial performance<br>– Investment strategy<br>– Climate: decarbonization strategy and trajectory; information on risks and performance indicators<br>– Operational, financial and ESG risk management<br>– Transparency<br>– ESG reporting frameworks | |

| Customers | | More information |
|---|---|---|
| Main stakeholders | – Private customers (B2C)<br>– Business customers (B2B)<br>– Government (B2G)<br>– Consumers and users of products and services | Sections 5.3, 5.8, 5.9<br>Chapter 2 |
| Main modalities of dialogue | – Commercial relationship<br>– Key account management<br>– Technical and commercial partnerships<br>– Complaints and claims | |
| Main tools and frameworks for dialogue | – Customer Relationship Management (mainly via the Salesforce platform)<br>– Team dedicated to monitoring 70 global key accounts by the Marketing & Services business segment<br>– Annual customer satisfaction surveys; global B2B satisfaction survey conducted every two years (latest in 2021)<br>– Barometer on reputation and image (every two years)<br>– Processing complaints and claims | |
| Main entities/teams involved | – Marketing/Strategy of business segments<br>– Sales force<br>– Consumer Services<br>– Research & Development | |
| Main topics of common interest and identified expectations | – Consumer health & safety<br>– Carbon intensity of products used<br>– Energy efficiency services<br>– Low carbon goods and services<br>– Access to energy<br>– Energy price<br>– Digitization of services<br>– Competition law | |

| Suppliers | | More information |
|---|---|---|
| Main stakeholders | – Network of over 100,000 suppliers and subcontractors | Sections 5.10, 3.6 |
| Main modalities of dialogue | – Qualification<br>– Call for tenders<br>– Assessment and action plans<br>– Contracting<br>– Awareness raising<br>– Audits | |
| Main tools and frameworks for dialogue | – Fundamental principles of purchasing<br>– Supplier pre-assessment process: at year-end 2022, more than 17,000 suppliers were integrated into the tool allowing to monitor the process[(1)]<br>– 200 priority suppliers audits were carried out in 2022[(2)] of the 1,300 priority suppliers<br>– Surveys and questionnaires<br>– Suppliers Day (every two years)<br>– Supplier engagement: set up of a platform dedicated to monitoring supplier performance in terms of sustainable development. More than 500 suppliers of the 1,300 priority suppliers invited have already joined this platform in 2022<br>– Alert mechanism, including internal mediator | |

(1) The suppliers pre-qualification process covers six criteria: administrative, anti-corruption, technical, HSE, financial and sustainability.
(2) 1,300 priority suppliers identified. These are the 500 suppliers that account for more than 50% of the Company's expenditures on goods and services, and the 800 identified as representing the highest risks in terms of human rights and environment, in view of their field of activity and the countries where they operate.

| Suppliers | | More information |
|---|---|---|
| Main entities/teams involved | – TotalEnergies Global Procurement | |
| Main topics of common interest and identified expectations | – Fight against climate change and taking into account suppliers' carbon footprint in the procurement decision process<br>– Human rights in the supply chain (including risks related to child labor, forced labor, working conditions, discrimination, health and safety of workers)<br>– Environment in the supply chain (including risks related to pollution and damage to biodiversity)<br>– Support for the economic development of SMEs and adapted and protected sector companies<br>– Compliance with contractual terms and payment deadlines | |

| Professional associations | | More information |
|---|---|---|
| Main stakeholders | – Professional or multi-stakeholder business organizations | Sections 5.4, 5.5, 5.9 |
| Main modalities of dialogue | – Consultations<br>– Memberships and participation in collective initiatives | List of associations available on TotalEnergies' website |
| Main tools and frameworks for dialogue | – List of professional associations of which TotalEnergies is a member: 929 in 2021 (updated every two years)<br>– Annual evaluation of public positions taken by associations of which TotalEnergies is a member<br>– TotalEnergies company's Advocacy Directive (December 2021) | |
| Main entities/teams involved | – Public Affairs<br>– Legal Department<br>– Business segments | |
| Main topics of common interest and identified expectations | – Climate: energy transition; transparency and consistency of supported positions<br>– Environment and safety - regulations and risk management<br>– Employment and economic development | |

| Civil society | | More information |
|---|---|---|
| Main stakeholders | – Communities neighboring sites<br>– Institutions and multilateral agencies<br>– Universities and research centers<br>– Experts and researchers<br>– NGOs<br>– Media | Sections 5.3, 5.4, 5.5, 5.7, 5.8, 5.9, 3.5, 3.6 |
| Main modalities of dialogue | – Project management<br>– Listening<br>– Interrogation and alerts<br>– Cooperation<br>– Partnerships (especially with university chairs)<br>– Mediation | |
| Main tools and frameworks for dialogue | – Assessment of the safety, environmental and societal challenges for new projects<br>– Voluntary Principles on Security and Human Rights (VPSHR) initiative and tools for self-diagnosis and risk analysis<br>– Societal impact studies begun or conducted in 2022: 129<br>– Management of complaints from neighboring communities<br>– Citizen Action - TotalEnergies Foundation Program | |

| Civil society | | More information |
|---|---|---|
| Main entities/teams involved | – Health, Safety and the Environment<br>– Business segments<br>– Security<br>– OneTech<br>– Sustainability & Climate<br>– Legal Department<br>– Communication<br>– TotalEnergies' corporate foundation | |
| Main topics of common interest and identified expectations | – Human rights, including Indigenous and tribal peoples' rights, right to health and adequate standard of living<br>– Climate, including the energy transition<br>– Protection of the environment and biodiversity<br>– Employment - conversion of sites with a view to a just transition<br>– Economic development of areas where the Company is established<br>– Innovation and R&D<br>– Access to energy<br>– Major accident risk prevention<br>– Access to land, sea and resources<br>– Impacts on cultural and religious practices and heritage | |

| Public authorities | | More information |
|---|---|---|
| Main stakeholders | – Host countries<br>– Authorities<br>– Administrations | Sections 5.3, 5.4, 5.5, 5.7, 5.8, 5.9, 3.5, 3.6 |
| Main modalities of dialogue | – Agreements and authorizations<br>– Project management<br>– Cooperation<br>– Mediation | |
| Main tools and frameworks for dialogue | – Compliance program<br>– TotalEnergies company's Advocacy Directive (December 2021)<br>– Voluntary Principles on Security and Human Rights | |
| Main entities/teams involved | – Executive management<br>– Country chairs<br>– Legal department<br>– Public Affairs<br>– Security | |
| Main topics of common interest and identified expectations | – Climate change<br>– Fighting corruption and tax evasion<br>– Human rights<br>– Protection of the environment and biodiversity<br>– Major accident risk prevention<br>– Economic development<br>– Access to energy | |

## IDENTIFICATION AND ASSESSMENT OF MAIN CHALLENGES AND RISKS

The Company employs a continuous process of identifying and mapping risks in order to develop sector-specific policies that reflect the desired level of control. The Company manages its activities through internal management systems implemented at the different levels of the Company.

In doing so, the Company performs regular assessments, following a variety of procedures, of the risks and impacts linked to its activities in the social topics, people's health and safety, the environment, climate, human rights and business ethics, as well as its supply chain.

- The risks and challenges relating to health, safety and the environment are identified as part of a dynamic process that draws in particular on lessons learned, which are included in the HSE (Health, Safety and Environment) reference framework known as One MAESTRO (*Management and Expectations Standards Toward Robust Operations*).
- The identification of climate-related risks and challenges is carried out by the Sustainability & Climate division.
- The Human resources division is responsible for identifying risks and challenges related to the workforce.
- In terms of human rights, TotalEnergies relies in particular on the UN Guiding Principles (UNGPs) Reporting Framework to identify its salient risks.
- In terms of purchasing, a mapping of CSR risks has been drawn up and regularly updated since 2012.

In conjunction with these risk identification processes, a dialogue based on stakeholders' involvement and participation is implemented in order to develop constructive and transparent relationships with them and to identify the main challenges and expectations and contribute to their evaluation and prioritization.

These assessments are generally carried out:

- prior to investment, acquisitions and divestitures decisions on the Company's industrial projects (evaluation by the Risk Committee of safety and security studies, impact assessments, particularly environmental and societal, and evaluation of consistency with the Company's climate strategy, prior to review by the Executive Committee),
- during operations,
- prior to placing new substances on the market (toxicological and ecotoxicological studies, life cycle analyses).

These assessments incorporate the regulatory requirements of the countries where the Company operates and generally accepted professional practices. In addition, internal control systems are structured and regularly adjusted to align with the specific nature of the strategic areas and orientations set by the Board of Directors and General Management.

TotalEnergies has thus identified the main risks and challenges linked to its activities. As part of its statement of non-financial performance, these are listed in the introduction to the sections relating to health, safety, climate change, the environment, social information, human rights, the fight against corruption and tax evasion, societal policy and relations with sub-contractors and suppliers.

For each of the challenges identified, the Company has deployed policies and operational action plans with quantitative and qualitative objectives aimed to minimize the negative impacts and maximize the positive impacts of its operations from an economic, social and environmental perspective.

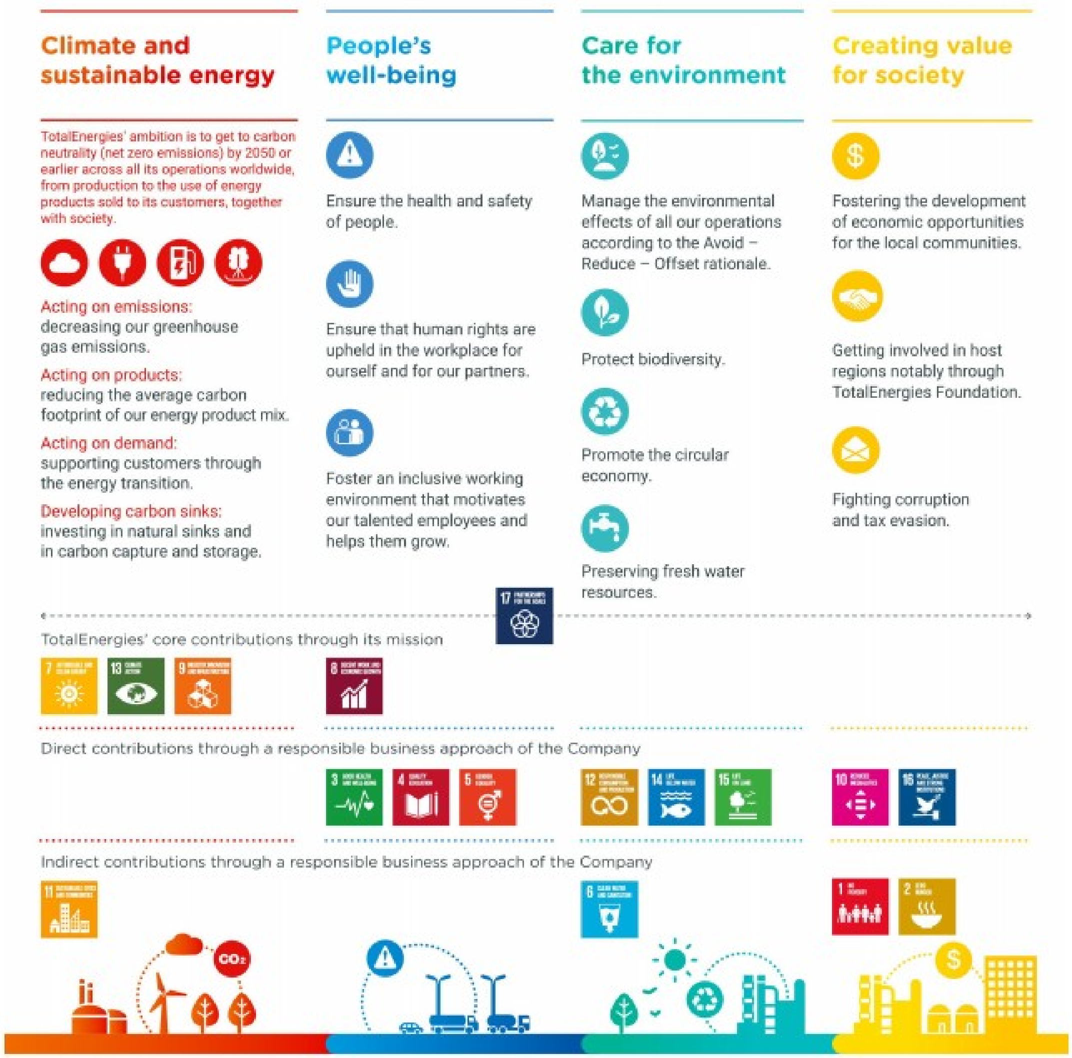
### Our contribution to the Sustainable Development Goals

TotalEnergies has structured its sustainable development approach for conducting its activities so as to contribute to the achievement of the United Nations Sustainable Development Goals (SDGs), to which TotalEnergies committed its support in 2016.

As part of its determination to strengthen its efforts in the segments in which it can act with most authority as an integrated multi-energy Company, TotalEnergies involves its employees in identifying the SDGs on which it can have the greatest impact, in connection with its ambition to reach carbon neutrality (net zero emissions) by 2050, together with society. Through workshops, more than 27,000 of them took part in 2022 in the development of 10 objectives and indicators related to the SDGs. In 2023, it is planned that each site, business unit and subsidiary of TotalEnergies around the world adopts a progress plan with targets to be achieved by 2025, and each plan to be based on actions directly linked to the local activities of the entity concerned, as close as possible to the field. These plans form the Sustainab'ALL program through which TotalEnergies materializes its contribution to sustainable development. The Company's contributions to the SDGs are illustrated below in the form of pictograms and in more detail on its website.

TotalEnergies' sustainable development approach is based on four areas:

- Climate and sustainable energy: leading the transformation of the energy model to contribute to the fight against climate change and meet the needs of populations,
- People's well-being: being a reference as an employer and responsible operator. TotalEnergies intends to promote a work environment that combines performance and conviviality, and to ensure compliance with human rights in the workplace, both within the Company and among its partners, as well as the safety and health of people,
- Care for the environment: to be exemplary in the management of the environment and the use of the planet's natural resources. TotalEnergies intends to ensure that the environmental impacts of all its operations are managed according to the Avoid-Reduce-Offset approach, thereby helping preserve the environment, biodiversity and fresh water resources. To this end, TotalEnergies promotes the circular economy,
- Creating value for society: generating shared prosperity across regions. TotalEnergies aims to be a creator and a driver of positive change for the communities in its host regions.




## TRANSPARENCY, A PRINCIPLE OF ACTION

The Company believes that transparency is an essential principle of action in building a trust-based relationship with its stakeholders and enables a path of continuous improvement.

Pending the adoption of an international, standardized non-financial reporting framework, TotalEnergies ensures it is accountable for its performance on the basis of the various commonly used ESG reporting frameworks. As such, TotalEnergies refers to the Global Reporting Initiative (GRI) standards and those of the Sustainability Accounting Standards Board (SASB), for which detailed tables of correspondence are available on its website. TotalEnergies' reporting includes the World Economic Forum's core indicators[1] (please refer to chapter 11). Furthermore, the Company follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for its climate reporting. TotalEnergies provides additional information on its website in pages specifically dedicated to its sustainability development approach.

### Non-financial ratings

TotalEnergies is among the industry leaders in the rankings of the main ESG rating agencies and is included in numerous ESG indices composed of the best performing companies in terms of sustainable development. Thus, TotalEnergies has been present since 2001 in the FTSE4Good index series (London Stock Exchange) and was reintegrated into the DJSI World and DJSI Europe indices in December 2022.

In 2022, TotalEnergies obtained a score of A- on the CDP questionnaire on climate change. In 2022, TotalEnergies obtained Platinum status for its commercial entities listed on the EcoVadis platform for TotalEnergies Electricité et Gaz France and Greenflex, the Gold status for TotalEnergies Marketing & Service, TotalEnergies Gas & Power Limited and Saft Groupe and the Silver status for TotalEnergies Refining & Chemicals.

(1) Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation, white paper, September 2020.

# 5.2 Business model

The business model implemented by the Corporation and all of the entities included in the scope of consolidation in accordance with Article L. 233-16 of the French Commercial Code is set forth in the integrated report (refer to point 1.1.3 of chapter 1). The business activities of the Company are presented in details in chapter 2.

# 5.3 Health & Safety for everyone

It is around safety, core value of the Company, in accordance with the strictest standards and with regard to health that the operational measures and indicators used to manage the Company's activities are based.

The activities of TotalEnergies involve health and safety risks for its employees, contractors, and residents in the vicinity of its industrial sites. Furthermore, certain products marketed by TotalEnergies may present risks for the health and safety of consumers.

In this context, TotalEnergies has therefore identified its main health and safety risks:

- risk of major industrial accident;
- risk of workplace accident;
- risk of transport accident;
- risk of damage to health at the workplace;
- risk of damage to the health and safety of consumers.

The risks and challenges relating to people's health and safety are identified as part of a dynamic process that draws in particular on lessons learned, which are included in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

To address its challenges, TotalEnergies relies on the HSE division, which forms part of the Strategy & Sustainability division, whose President is a member of the Executive Committee.

In line with the various businesses of the Company, the HSE division coordinates the promotion and implementation of TotalEnergies' policies to enable the HSE divisions of the subsidiaries to prevent or mitigate risks. Indicators are monitored so that the Company's actions in relation to health and safety can be continuously adapted.

TotalEnergies conducts its operations on the basis of its Safety Health Environment Quality Charter (available on its website). It forms the common foundation for the Company's management frameworks, and sets out the basic principles applicable to safety, security, health, the environment, quality and societal commitment. Company directives and rules define the minimum requirements expected. General specifications, guides and manuals are used to implement these directives and rules. TotalEnergies' subsidiaries implement these requirements by means of their own management systems, which take account of specific local specificities and local regulatory requirements. The Company's reference framework is available to all employees.

The HSE reference framework common to all business segments, called One MAESTRO, has been rolled out since 2018 in order to give greater overall consistency to the Company's operations, while continuing to respect the specific characteristics of the various business segments. This reference framework applies to the subsidiaries as well as their operated sites as defined in point 5.11 of this chapter (scope of One MAESTRO). It is based on 10 fundamental principles: (1) management, leadership and commitment, (2) compliance with laws, regulations and Company requirements, (3) risk management, (4) operational accountability, (5) contractors and suppliers, (6) competencies and training, (7) emergency preparedness, (8) learning from events, (9) monitoring, audit and inspection, and (10) performance improvement.

**Key principles of the One MAESTRO reference framework**


In order to evaluate the implementation of this framework, TotalEnergies' subsidiaries operating sites are audited every three to five years. The periodicity of HSE audits is defined according to a risk-based approach, which takes into account, among other things, the results of previous HSE audits and the status of the corresponding action plans. In 2022, 38 HSE audits were conducted. These subsidiaries also undertake self-assessments at least every two years. The Company's HSE audit protocol is based on the One MAESTRO framework, and includes *inter alia* the requirements of ISO 14001:2015 and ISO 45001:2018. The audit protocol is applied fully during self-assessments and according to a risk-based approach during audits.

Furthermore, the One MAESTRO framework provides that subsidiaries of TotalEnergies holding an interest in assets or activities operated by third parties must promote the Company's HSE requirements and best practices and endeavor to ensure that similar requirements are adopted by the operator. It also provides that the HSE risks relating to these assets or activities must be assessed at least every five years and that the TotalEnergies' employees in charge of managing non-operated assets must be trained in HSE management. Assessing the risks relating to these assets and activities provides the basis for promoting the Company's HSE rules implemented by the asset manager, particularly during board meetings. This can also take place during technical assistance missions or through HSE audits or reviews, when these are provided for by a shareholders' agreement. In 2022, the Company participated in 20 audits of non-operated assets.

Furthermore, before any final decision to invest in a construction project or acquire or sell a subsidiary, the proposals presented to the Company's Risk Committee are assessed with regard to health and safety risks.

| Our health and safety targets | Facts |
|---|---|
| – zero fatal accidents | – 3 fatalities in 2022 |
| – continuously decrease the TRIR(1) and achieve a TRIR of 0.65 in 2023. The target in 2022 was 0.70 | – a TRIR of 0.67 in 2022 below the target |
| – maintain the health of employees at work | – 99% of employees with specific occupational risks received regular medical monitoring in 2022(2) |
| – preventing the occurrence of major industrial accidents | – no major industrial accident in 2022 |

(1) TRIR (Total Recordable Injury Rate): number of recorded incidents per million hours worked.
(2) Data from the WHRS (refer to point 5.11).

## 5.3.1 Preventing the occurrence of major industrial accidents

To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures which apply to the operated activities. The Major Risks division of the HSE division provides support in the application of this policy.

At year-end 2022, in addition to its drilling and pipeline transportation operations, TotalEnergies had identified 185 operated sites and zones exposed to such risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower threshold) and their equivalents outside of the European Union (versus 181 sites at the end of 2021 and 186 at the end of 2020).

The Company's policy for the management of major industrial accident risks applies from the facilities design stage, and throughout their lifespan, in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures. They may be technical or organizational. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized at head office and at subsidiary sites for operating staff.

**With regard to the design and construction of facilities**, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.

**With regard to the management of operations and integrity of facilities** operated by the Company, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a work permit, the process of which, from preparation to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. All these rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings.

For example, in order to control the integrity of **pipelines** operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. These controls and their frequency are reinforced in areas with high human or environmental risks identified by the risk analysis.

In terms of indicators, TotalEnergies monitors the number of Tier 1 and Tier 2 losses of containment as defined by the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP). After reaching its target in 2022, the Company has strengthened its demands and has set itself a new target of a number of Tier 1 and Tier 2 events below 50 in 2023. In 2022, the Company did not experience any Tier 1 or Tier 2 events due to acts of sabotage.

| Losses of primary containment[a] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Losses of primary containment (Tier 1) | 11 | 29 | 30 |
| Losses of primary containment (Tier 2) | 37 | 48 | 54 |
| Losses of primary containment (Tier 1 and Tier 2) | 48 | 77 | 84 |

(a) Tier 1 and Tier 2: indicator of the number of losses of primary containment with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream). Excluding acts of sabotage and theft.

Tier 1 and 2 events had only moderate consequences such as lost time injuries, fires or pollution of limited extent or with no impact. The Company did not have any major industrial accidents in 2022.

In order to manage any major industrial accident efficiently, TotalEnergies has implemented a **global crisis management system** that is based primarily on an on-call system available 24/7, as well as a dedicated crisis management center at head office that makes it possible to manage two simultaneous crises. The framework provides that subsidiaries draw up plans and procedures for interventions in the event of leaks, fires or explosions and that subsidiaries have to test these at regular intervals.

The context of the COVID-19 pandemic demonstrated the capacity for resilience of the Company, which used, in various formats, its procedures and methodologies to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the continuous deployment of digital crisis units for the head office, segments and subsidiaries, and the deployment of the associated training. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In order to maintain training capacity regardless of how the situation developed, training for internal crisis management individuals was delivered either face-to-face or remotely depending on countries' accessibility. In 2022, 371 individuals were thus trained in crisis management in subsidiaries and at headquarters.

TotalEnergies also continued to roll out its *Incident Management System* (IMS) at subsidiaries operating liquid hydrocarbon or natural gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations described by a good practices guide of the International Petroleum Industry Environmental Conservation Association (IPIECA) and increasingly being adopted by the major operators. In 2022, 199 employees were trained in the IMS and 7 Exploration & Production subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 780 and the number of subsidiaries where the IMS is deployed to 18.

## 5.3.2 Preventing occupational accidents

The Company has a **policy for the prevention of occupational accidents** which applies to all employees of subsidiaries and of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attaimention for all. This policy is described in the One MAESTRO reference framework.

The indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its s of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2023, of reducing it below 0.65 for all personnel of the Company and its contractors. The 2022 target was 0.70.

| Occupational Safety indicators | 2022 | 2021 | 2020 |
|---|---|---|---|
| Millions of hours worked – All Personnel | 392 | 389 | 389 |
| Company Personnel | 217 | 215 | 211 |
| Contractors' employees[a] | 175 | 174 | 178 |
| Number of occupational fatalities – All Personnel | 3 | 1 | 1 |
| Company Personnel | 0 | 1 | 0 |
| Contractors' employees[a] | 3 | 0 | 1 |
| Number of occupational fatalities per hundred millions hours worked – All Personnel | 0.77 | 0.26 | 0.26 |
| TRIR[b]: number of recorded injuries per million hours worked – All Personnel | 0.67 | 0.73 | 0.74 |
| Company Personnel | 0.60 | 0.59 | 0.63 |
| Contractors' employees[a] | 0.76 | 0.91 | 0.87 |
| LTIR[c]: (lost time injury rate) number of lost time injuries per million hours worked – All Personnel | 0.45 | 0.48 | 0.48 |
| Company Personnel | 0.51 | 0.47 | 0.50 |
| Contractors' employees[a] | 0.39 | 0.48 | 0.46 |
| SR[d]: number of days lost due to accidents at work per million hours worked - All Personnel | 15 | 15 | 17 |

(a) As defined in point 5.11.4 of this chapter.
(b) TRIR: Total Recordable Injury Rate.
(c) LTIR: Lost Time Injury Rate.
(d) SR: Severity rate. It replaces the SIR (Severity Injury Rate) indicator previously disclosed.

In 2022, out of the 263 occupational accidents reported, 256 related to accidents at the workplace. 73% of these occurred, in decreasing order of the number accidents, when handling loads or objects, walking, using portable tools or working with powered systems.

The Company's efforts on safety have allowed it to reduce the TRIR by more than 70% between 2012 and 2022.

This improvement is due to constant efforts in the field of safety and, in particular:

- the prevention of the risks of serious and fatal accidents by campaigns aimed at road transport and high-risk work,
- the implementation of the HSE rules and guides, which are regularly updated and audited,
- training and general awareness raising with safety issues for all levels of management (special training for managers, World Safety Day),
- HSE communication efforts targeting all Company personnel,
- the introduction of HSE objectives into the compensation policy for Company employees (refer to point 5.6.1.2 of this chapter).

Despite the measures implemented and detailed below, there were regrettably three accidental fatalities among the personnel of external companies in 2022. In April, a worker was electrocuted by an overhead power line during work on a service station in Burkina Faso; in August, a shovel driver was buried with his machine while digging in a quarry in Argentina; and in September, a driver died when his tanker truck overturned on the freeway in France. For each of these accidents, specific preventive measures have been taken at the Company level in addition to the global programs already in place.

As part of the policy for preventing workplace accidents, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Company employees and contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also implements a **process for analyzing accidents**, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered essential factor of progress. Depending on its relevance to other Company entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (nearly 750,000 in 2022, up on 2021) is strongly encouraged and is permanently monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Company.

The Company's HSE division includes a division of specialists in high-risk operations (work at height, lifting operations, confined spaces, etc.), which consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries in their own voluntary approach to **strengthen their safety culture**. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors (OHF) of a work situation and defining appropriate measures. Since 2020, a digital platform has hosted these different tools, as well as examples of how to apply them, fact sheets and information about the fundamental concepts of OHF. This platform includes the principles covered by two guides of the One MAESTRO standard, dealing respectively with OHF and Integrated Safety Culture approaches. The implementation of these principles is promoted within the Company through dedicated modules integrated into the training programs for different populations, or through specific training programs at the request of subsidiaries.

In addition to its One MAESTRO reference framework, the Company has applied 12 Golden Rules for safety at work since 2010. These simple Golden Rules, which can be memorized by everyone and are representative of a high number of accidents in the workplace, must be strictly obeyed by all personnel, both employees and external companies, in all countries and in all the Company's activities. The purpose of the Golden Rules is to protect day-to-day safety in operations and on sites with a common objective: "Zero fatal accidents".

In 2022, TotalEnergies reviewed the drafting to its Golden Rules for them to be more directly understandable by players on site and to facilitate their appropriation. These Golden Rules were widely distributed on World Day of Safety, to both employees and external companies. In order to consolidate these new Golden Rules and allow them to be discussed and taken onboard by the teams, a new Golden Rule was highlighted each month, and deployment materials, based on the accidents in the Company, were distributed to the subsidiaries. In addition, the existing Stop Card system enables any employee of the Company or a contractor to intervene if, for example, any of the Golden Rules are not being obeyed. In 2019, the Company also rolled out the *Our lives first: zero fatal accidents* program, which introduced joint safety tours with external companies (10,000 by 2022 on the Company's sites), the establishment, in the work permit process, of a ritual prior to work on all the operated sites concerned (Safety green light - Life Saving Checks) and a tool to intensify checks in the field and measure compliance with safety rules for the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces, hot work (more than 150,000 compliance measures were carried out in this context in 2022 on Company's sites).

The correct implementation of the One MAESTRO reference framework, and more generally, of all the Company's occupational safety programs, is verified with site visits and **audits**. Contractors' HSE commitment is also monitored by means of a **contractors qualification** and **selection** process. The reference framework states that for a contractor to be authorized to carry out high-risk work on a site operated by a Company subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. For contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Company segments or members of executive committees of Company subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues.

Whatever the nature of the health, safety and the environment risks, preventive actions require all employees to adhere to the Company's HSE policy. To this end, TotalEnergies provides **training intended for the various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone:

- *Safety Pass:* these safety induction courses were started on January 1, 2018 for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions,
- *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2022, in which about 200 managers took part,
- *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2022 to train approximately 70 Company's senior executives.

In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Approximately 20 evaluations were carried out in 2022.

In addition to training measures, the HSE division hosts regular events on HSE-related topics, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. The theme for 2022 was "The Golden Rules: my commitment, our safety". In addition, TotalEnergies encourages and promotes its subsidiaries' safety initiatives. Each year, the Company recognizes and awards the best HSE initiative carried out in a subsidiary.

Finally, safety, as a value of TotalEnergies, is taken into account in the **employee compensation policy** (refer to point 5.6.1.2 of this chapter).

In terms of **security**, the Company's policy aims to ensure that the Company's people and property are protected from malicious intent or acts. To achieve this, TotalEnergies relies on its Security department, which develops the Company's reference framework and oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel). It also provides support to subsidiaries, particularly in the event of a crisis. The Company's security reference framework applies to all subsidiaries controlled by TotalEnergies. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Company's Security department recommends the organization and resources to be deployed in connection with the business segments.

In each country in which TotalEnergies operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer. Subsidiaries' management systems and security plans are checked on a regular basis by the Company's Security department or the Country Chair. Awareness raising and training programs and a centralized system for reporting security events are organized by the Company's Security department.

### 5.3.3 Preventing transport accidents

In the field of **road transportation**, the Company has for many years adopted a policy intended to reduce the number of accidents by applying standards that are, in some cases, more stringent than certain local regulations. This policy, defined in the One MAESTRO reference framework, applies to all the Company's personnel and Company entities' contractors. For example, it includes a ban on telephoning while driving, even with a hands-free set, a ban on using motorized two-wheeled vehicles for business travel, mandatory training for drivers, and the definition of strict technical specifications for Company vehicles (in particular, light vehicles must pass NCAP 5* tests).

Additional requirements are defined depending on the level of road traffic risks in the country in question and the nature of the activity. For exemple, in countries with high road traffic risks, vehicles are equipped with recorders of driving inputs and the conduct of drivers is monitored.

Since 2012, a large-scale inspection program of transportation contractors has also been rolled out by Marketing & Services, the segment with the most road transportation within the Company, with the delivery of products to service stations and consumers. This program has been extended to the product transportation activities of the Polymers division of the Refining & Chemicals segment, to the liquid sulfur transportation activities of the Integrated Gas, Renewables & Power segment, and is being progressively extended to the Exploration & Production segment. It calls on independent transportation experts who inspect the practices and processes adopted by transportation contractors with regard to the recruitment and training of drivers, vehicle inspections and maintenance, route management, and the HSE management system. After inspection, an action plan is adopted. If there is a serious shortcoming or repeated poor results, the transportation contractor may be excluded from the list of approved transportation contractors. Furthermore, there has been a training center since 2015 in Radès in Tunisia. It offers transportation training for employees of subsidiaries and road transportation contractors working for the Company that are interested.

To measure the results of its policy, TotalEnergies has, for many years, been monitoring the number of severe road accidents involving its employees and those of contractors. Over the past 5 years (2017 - 2022), the 60% reduction in the number of serious accidents demonstrates the efforts made, particularly thanks to the prevention campaigns targeting the drivers of heavy goods vehicles.

Based on the use of new technologies to prevent road accidents, TotalEnergies has made it mandatory for all new heavy vehicles in the Marketing & Services segment to be equipped with certain driver assistance systems[1] wherever these technologies are offered by manufacturers. In Marketing & Services, the decision was also made to deploy fatigue detection systems in countries with high road risk, after conclusive testing over several months. More than 2,600 transportation vehicles had been equipped in Africa zone by the end of 2022 (approximately 50% of the entire fleet under long-term contract in the zone). Deployment is now continuing worldwide, with the aim of having a lane departure warning system and a driver drowsiness and distraction detection system on all the fleet by the end of 2024.

In addition, the second part of the SafeDriver video campaign, launched in 2019, came to a close in November 2022. The subjects included blind angles, fatigue, driving in difficult situations, distractions when at the wheel, speed and safety distances, as well as maneuvers and lines of danger. The third part of this campaign is being prepared for 2023-2024.

| Number of severe road accidents[a] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Light vehicles and public transportation[b] | 3 | 1 | 0 |
| Heavy goods vehicles (trucks)[b] | 12 | 20 | 27 |

(a) Overturned vehicle or other accident resulting in the injury of an occupant (declared accident).
(b) TotalEnergies vehicles or vehicles under long-term contract (over 6 months) with TotalEnergies.

In **maritime** and **inland waterways** transportation, the process and criteria for selecting ships and barges are defined by the teams in charge of vetting. These criteria take into account not only the ship or barge but also the crew, ensuring that the crew has the qualifications and training required under the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) convention. These same teams also verify the application of the safety management system defined for ships by the ISM (International Safety Management) Code of the IMO (International Maritime Organization) as well as industry recommendations such as OCIMF (Oil Companies International Marine Forum) and SIGTTO (Society of International Gas Tanker and Terminal Operators), including those that take account of the human factor, in particular to prevent accidents to people on board ships or barges. In addition, TotalEnergies' chartering contracts require that the crew belong to a recognized trade union affiliated to the ITF (International Transport Workers' Federation). The ITF represents the interests of transportation workers' unions in bodies that make decisions about jobs, conditions of employment or safety in the transportation sector, such as the International Labour Organization (ILO) or the IMO.

With regard to **air transportation**, a carrier selection process exists to limit the risks relating to travel by Company and contractors' employees, if their journey is organized by TotalEnergies. This process is based on data from recognized international organizations: ICAO (International Civil Aviation Organization), IOSA (IATA Operational Safety Audit), IOGP International Association of Oil and Gas Producers), and civil aviation authorities' recommendations. Airlines that do not have a rating from an international body are assessed by an independent body commissioned by the Company.

(1) Such as AEB (advanced emergency braking), LDW (lane departure warning) and EBS (electronic braking system) for motor vehicles and RSS (roll stability support) for semi-trailers.

## 5.3.4 Preventing occupational health risks

With regard to the prevention of occupational health risks, the One MAESTRO framework provides that subsidiaries of the Company identify and assess risks at the workplace in the short, medium and long term. To do this, the framework provides application guides for implementation. The analysis of these health risks relates to chemical, physical, biological, ergonomic and mental risks. This results in the roll-out of an action plan. An Industrial Health correspondent in subsidiaries is identified and tasked with implementing the policy for identifying and assessing work-related health risks. The actions are integrated into the entities' HSE action plans and can be audited as part of the One MAESTRO audits.

In general, **potential exposure to chemical or hazardous products** at a site operated by a Company entity or nearby is one of the most closely monitored risks in view of the potential consequences. New facility construction projects comply with international technical standards from the design stage in order to limit exposure. For production sites operated by a Company entity and subject to this risk, the One MAESTRO reference framework sets out the prevention process in several stages.

- First, hazardous products such as carcinogenic, mutagenic or toxic to reproduction (CMR) products are listed and their risks identified.
- Second, potential exposure to levels that may present a risk to the health of personnel, contractors or local residents at the site or nearby are identified and assessed, and prevention or mitigation measures are implemented in order to control the risk.
- Last, the approach is checked (atmospheric checks, specific medical monitoring, audits etc.) in order to verify its effectiveness and implement improvement measures if necessary. This is also set out formally in a risk assessment file, which is revised regularly by the subsidiary.

In addition to the One MAESTRO reference framework, the Company has a health reference framework, which was comprehensively reviewed and approved by the President, People & Social Engagement in 2022. As a responsible actor, the Company considers that respect for and integrity of people's health is an imperative and a key factor of its performance and development.

The health policy is part of the Company's approach to sustainable development and includes occupational health requirements that apply to the Company's employees as part of their professional activity, as well as to the employees of external companies working on its sites.

The aim of occupational health protection is to protect the physical and mental health of the Company's employees by implementing an appropriate risk analysis and prevention policy. It also aims to guarantee their fitness for work and to avoid accidents at work and occupational diseases.

In 2018, the Company structured its organization by appointing a medical coordinator in charge of the health policy. They organize active monitoring and promote health issues by regularly participating in discussions between peers, particularly as part of the *Association of medical coordinators* in major international groups. In addition, they can call on a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Company's activities. This Committee decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Company's senior executives and stakeholders concerned by these issues. The medical coordinator also leads the Health Steering Committee, a health governance body, which brings together the health officers of the Company's various business segments on a quarterly basis.

Furthermore, in view of its activities and exposure, TotalEnergies has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. For foreign subsidiaries, it coordinates the organization of health services, employee aptitude assessments, medical monitoring and support for employees and expatriates' families, and medical evacuations. It also conducts audits of medical facilities in countries where TotalEnergies is present and issues recommendations.

As part of its health policy, the Company has implemented a **Mental Health risks** (MHR) prevention policy aimed at protecting the mental health of employees and has introduced a global program to enable all exposed employees to receive support, wherever they are in the world. The incorporation of mental health by the Company is part of a broader framework linked to well-being and quality of life at work, which includes social protection, working methods and environment, taking family life into account, and listening and caring at all levels of management. This program, spearheaded by the Company's People & Social Engagement division, the Company medical coordinator and health and MHR officers of each of TotalEnergies' business segments, addresses three issues:

- Primary prevention consists of systematically assessing the mental health risks in the workplace and the impacts of reorganizations on mental health, using a methodology based on the One MAESTRO reference framework, to take action at the source, or reduce or eliminate any potential risk,
- Secondary prevention consists of raising awareness among all employees with a MHR prevention kit.

  This kit, the primary supporting material for all training, has been translated into 11 languages and validated by international experts. It consists of a methodological guide for site managers and two practical guides for managers and employees. After a definition of the MHRs and risk factors for mental health, it presents the impacts, human and societal issues of MHRs and a methodology to prevent them in the workplace. Finally, it contains practical fact sheets for use in the event of difficulties, high-risk situations or crises.

  The MHR prevention training (e-learning and educational videos), was fully reviewed in 2022, is accessible to everyone on the training platform and included into the managers' training curriculum. By the end of 2022, 46.6% of managers had followed this training.

  Questionnaires made available to employees on the intranet can be used for individual measurements of stress, anxiety and depression, and for collective assessments of the factors of MHR in the working environment.

  As a consequence, health officers can manage the prevention of MHRs in order to reduce their impacts on mental health independently and as closely as possible to employees.

- Tertiary prevention, provided by international experts, offers help and support to all employees, in more than 60 languages, on a free 24/7 hotline and up to three video-consultations paid for by the Company.

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Percentage of subsidiaries that have deployed a help system | 85% | 85% | 81% |
| Percentage of subsidiaries that have measured stress over the last two years | 58% | 57% | 52% |

Data provided by the WHRS.

This system guarantees anonymity, confidentiality and the security of personal data during the entire period of support. It is easily accessible on the Company's intranet. The Health Steering Committee monitors the progress of the roll-out of this system on a quarterly basis within each business segment.

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Percentage of subsidiaries that have signed a contract with a psychological service provider | 96% | 93% | 51% |
| Percentage of subsidiaries that have appointed a MHR officer | 97% | 96% | 84% |

Data from the Health Steering Committee.

In terms of **medical monitoring**, the health reference framework provides that each subsidiary offers its employees a medical checkup at least every two years (unless there are different regulations or specific local context) and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. At the end of 2022, 59% of subsidiaries offered a health check every two years.

On a broader level, TotalEnergies also supports the **promotion of individual and collective health programs** in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (COVID-19, AIDS, cancer, malaria, etc.) for employees, their families and local communities. It is also developing social protection schemes (refer to point 5.6.1.2 of this chapter). Lifestyle risk awareness activities (anti-smoking and anti-alcohol campaigns, etc.) are also implemented on a regular basis.

TotalEnergies has put in place the following indicators to monitor the performance of its program:

| Health indicators (WHRS scope) | 2022 | 2021 | 2020 |
|---|---|---|---|
| Percentage of employees with specific occupational risks benefiting from regular medical monitoring | 99% | 97% | 97% |
| Number of occupational illnesses recorded in the year (in accordance with local regulations) | 129 | 158 | 136 |

Musculoskeletal disorders (MSDs) represented 70% of all recorded occupational illnesses in 2022, compared to 55% in 2021 and 53% in 2020 in the Global Workforce Analysis scope. The Company provides subsidiaries with a guide to best practices for assessing the risk of MSDs, assists subsidiaries' HSE departments in implementing ergonomic risk management measures and offers employees training in the prevention of musculoskeletal disorders. In addition, the health check-up offered at least every two years allows for the prevention or early detection of musculoskeletal pathologies.

The next most common declared occupational diseases are diseases related to mental health risks (10.7%) and previous exposure to asbestos (8%).

In 2020, TotalEnergies organized itself to cope with the **COVID-19 pandemic.** A coordination unit was set up at the Company's head office in January and a Company crisis management unit (CMU) was created in March. Since then, while ensuring the continuity of the activity, the CMU has been in charge of:

- advising the Company's Executive Committee,
- ensuring coordination among all Company entities and sharing best practices,
- defining, in accordance with the rules of each country, conditions for effective protection of all employees' health,
- build up security stocks of protective equipment,
- adapting the travel policy,
- running internal communications and preparing information for employee representatives,
- carrying out periodic reporting.
- ensuring that the Company's subsidiaries deploy, depending on the local context and the legislation in force, an in-company vaccination program for the Company's employees and those of external companies permanently present on the sites operated by the Company. In total, this system has been deployed in 48 countries.

In 2022, the Company's CMU has been active, and makes the necessary adjustments and adaptations in response to developments in the pandemic and changes in the various countries' regulations.

In 2022, feedback was provided on the management of the COVID-19 pandemic. It enabled the creation of reference documents to anticipate future pandemics.

Also, in 2022, the Company's Medical Advisory Committee addressed the specific theme of long COVID and the impacts of the COVID-19 pandemic on the companies' organizations.

## 5.3.5 Limiting risks for the health and safety of consumers

Unless certain precautions are taken, some of the petroleum or chemical products marketed by TotalEnergies pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the life cycle of these products.

TotalEnergies has also defined the minimum requirements to be observed in order to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety data sheets that accompany the petroleum and chemical products marketed by the Company (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information.

The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Company. The task of these teams is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. They therefore draw up the material safety data sheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and ensure REACH[1] registration if necessary. Thanks to their scientific and regulatory watch, they monitor updates to safety data sheets, certificates and records, so that they remain compliant with the regulations in force.

Governance of the process is rounded off within the Company's business units or subsidiaries of the Refining & Chemicals and Marketing & Services segments with the designation of a Product Safety Manager, who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Company's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment.

The safety data sheets for oil and gas produced by subsidiaries of the Exploration & Production segment are produced by the Marketing & Services expertise center. The compliance of the go-to-market process of these products is ensured by the subsidiary.

For the Integrated Gas, Renewables & Power segment, the implementation of the Company's requirements for the marketing of chemical or petroleum products is carried out by each subsidiary concerned according to its own organization.

# 5.4 Climate change-related challenges (as per TCFD recommendations)

TotalEnergies supports the objectives of the Paris Agreement, which calls for reducing greenhouse gas (GHG) emissions in the context of sustainable development and eradicating poverty, and which aims to hold the increase in the planet's average temperature to well below 2 °C above pre-industrial levels. To achieve these targets, the world's energy systems need to be transformed. This dual challenge consisting of providing more energy to as many people as possible with less GHG emissions concerns society as a whole, with governments, investors, companies and consumers all playing an important role.

At the heart of the climate stakes, TotalEnergies' aim is to provide an energy that is more available, more affordable, cleaner and accessible to as many people as possible. In this context, the Company's ambition is to reach carbon neutrality (net zero emissions) by 2050 together with society.

(1) European Parliament regulation Registration, Evaluation, Authorization and restriction of CHemicals (REACH).

## 5.4.1 Governance

*TCFD correspondence table*[1]

| THEME | Recommended TCFD disclosures |
|---|---|
| **Governance** | |
| Disclose the organization's governance around climate-related risks and opportunities. | a) Describe the Board's overseeing of climate-related risks and opportunities. |
| | b) Describe management's role in assessing and managing climate-related risks and opportunities. |

In order to contribute concrete responses to the issue of climate change, TotalEnergies relies on a structured organization and governance.

Climate issues are addressed at the highest level of the organization by the Board of Directors and the Executive Committee, which have fully committed to transforming TotalEnergies into a multi-energy company and a major player in the energy transition. The Chairman and Chief Executive Director with the members of his Executive Committee as well as the Lead Independent Director participate all year long to a nourrished dialogue with shareholders and different stakeholders on the Company's climate issues. As an illustration, on April 5 and 6, 2022, the Lead Independent Director exchanged with diverse shareholders representing more than 20% of the share capital of TotalEnergies SE. These meetings have been the opportunity of a dialogue about the transformation strategy of TotalEnergies, its progress and the update of its climate ambition.

The Board of Directors also reports annually to the shareholders on the progress made. As in 2021, the Board of Directors submitted at the Annual Shareholders' Meeting on May 25, 2022 to the shareholders of TotalEnergies SE for their opinion the Sustainability & Climate Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition in terms of sustainable development and energy transition towards carbon neutrality and its related targets by 2030, and complementing this ambition. This resolution was approved by close to 89% of the votes cast.

In support of the Company's governance bodies, the Sustainability and Climate division shapes the approach to climate and accompanies the strategic and operational divisions of the Company's business segments. By defining and monitoring indicators, progress can be measured and the Company's actions can be adjusted (details of the indicators used are provided in point 5.4.4 of this chapter).

### OVERSIGHT BY THE BOARD OF DIRECTORS

TotalEnergies' Board of Directors endeavors to promote value creation by the business in the long term by taking into consideration the social and environmental challenges of its business activities. It determines the Company's strategic orientation and regularly reviews, in connection with this strategic orientation, the opportunities and risks such as financial, legal, operating, social and environmental risks, and the measures taken as a result. It thus ensures that climate-related issues are incorporated into the Company's strategy and the investment projects that are submitted to it. It examines climate change risks and opportunities during the annual strategic outlook review of the Company's business segments. It reviews performance each year.

The skills of the directors in the area of climate are presented in section 4.1.1.5 of chapter 4. A continuing training program relating to the climate for directors has been approved in 2021 and it includes different modules about the following themes: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities; Causes and challenges of global warming. In 2022, the directors followed in particular the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences).

To carry out its work, the Board of Directors relies on its Strategy & CSR Committee, whose internal rules were amended first in September 2017, and again in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Company's strategy. In this regard, the Strategy & CSR Committee convened on October 25 and October 26, 2022 a strategy seminar to review the following topics: energy markets - geopolitics; new energies for mobility by 2030 (road, marine and aviation); integrated business model for electricity. On this occasion, the directors had the opportunity to discuss with Mr. Larry Fink, Chairman and Chief Executive Officer of BlackRock.

The Board of Directors has also been integrating climate issues into its compensation structures for several years. In 2021, the Board of Directors decided to change the criteria for determining the variable portion of the Chairman and Chief Executive Officer's compensation by introducing two new criteria to assess his personal contribution, weighing 25% of this variable portion, namely steering the strategy of transformation towards carbon neutrality and profitable growth in renewables and electricity. CSR performance is also a qualitative criterion for evaluating personal contribution. CSR performance is assessed by considering the extent to which climate issues are included in the Company's strategy, the Company's reputation in the field of CSR and the policy concerning all aspects of diversity. These criteria complement the quantitative HSE criteria and those introduced in 2019 relating to changes in GHG emissions (Scope 1+2).

The variable compensation of the Company's senior executives (approximately 300 people at the end of 2022) includes a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2).

Since 2020, the criteria for awarding performance shares to the Chairman and Chief Executive Officer and to all the Company's employees also include GHG emissions reduction targets (refer to point 4.3.2 in chapter 4).

(1) Task Force on Climate-related Financial Disclosures.

## ROLE OF MANAGEMENT

TotalEnergies' Chairman and Chief Executive Officer, assisted by the Executive Committee, in accordance with the long-term strategic direction set by the Board of Directors, implements the strategy of the Company while making sure climate change challenges are taken into account and detailed in the operational road maps. The work is based in particular on risk mapping, which includes climate issues.

A Sustainability & Climate division, which reports to the President, Strategy & Sustainability, a member of the Executive Committee, coordinates the Company's actions in this area.

A Climate-Energy Steering Committee, chaired by the Vice President Climate which mainly includes representatives of Strategy and HSE management from the various business segments, is responsible for structuring the Company's approach to climate issues, and in particular for:

- proposing targets for reducing GHG emissions for the Company's operations,
- proposing a strategy to reduce the carbon intensity of the energy products used by the Company's customers,
- monitoring existing or emerging $CO_2$ markets, and
- driving new technology initiatives, in particular with industrial partners, to reduce GHG emissions (energy efficiency, $CO_2$ capture and storage, for example).

Under the impetus of the governance bodies, the Company maintains an ongoing dialogue with investors, non-financial analysts and non-financial rating agencies on climate issues and, more broadly, on the Company's ESG (Environment, Social, Governance) themes. A total of more than 250 ESG meetings were organized in France and internationally in 2022.

# 5.4.2 Strategy

*TCFD correspondence table*

| THEME | Recommended TCFD disclosures |
|---|---|
| **Strategy** | |
| Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material. | a) Describe the climate-related risks and opportunities that the organization has identified over the short, medium, and long terms.<br>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.<br>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a scenario of 2 °C or less. |

## 5.4.2.1 IDENTIFICATION OF CLIMATE-RELATED RISKS AND OPPORTUNITIES

The risks and opportunities related to climate change are analyzed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).

The identification and the impact of climate-related risks form an integral part of TotalEnergies's global risk management processes. In particular, they cover the risks related to transition including those due to regulatory changes, such as the introduction of carbon taxes, as well as the physical risks due to the effects of climate change. The impact of these risks is analyzed for the Company's assets and for investment projects (refer to point 3.1.1 of chapter 3).

To achieve carbon neutrality, the energy mix will need to change and in view of this, climate change also provides TotalEnergies with opportunities. In the coming decades, demand for electricity will grow faster than the global demand for energy(1), and the contribution of renewables and gas to the production of electricity will therefore play an essential role in the fight against climate change. Electricity alone will not be sufficient to meet all needs, particularly those connected to transportation.

Gas and sustainable biofuels(2) will be attractive and credible alternatives to conventional fuels and the Company intends to develop them. The development of gas production is accompanied by measures to control methane and $CO_2$ emissions (Scope 1+2). This development could be accompanied by an increasing share of biogas. The development of hydrogen could also contribute to meeting energy demand.

Helping customers improve their energy efficiency also offers opportunities and forms part of a trend that will be accelerated by digital technology. TotalEnergies wants to be innovative and bring them new product and service offerings. The Company aims to develop this approach for industrial and mobility applications.

In addition, ecosystems, and forests in particular, store carbon naturally. Consequently, their conservation and the restoration of their role as carbon sinks are crucially important in the fight against global warming. TotalEnergies therefore wants to develop its activities related to natural carbon sinks.

Finally, certain sectors, such as cement and steel, could struggle to reduce their GHG emissions. They will therefore require carbon capture, utilization and storage (CCUS) technology. Consequently, the Company intends to step up the development of CCUS.

(1) IEA, World Energy Outlook 2022.
(2) According to the sustainability and GHG gas reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources.

### 5.4.2.2 IMPACT OF CLIMATE-RELATED RISKS AND OPPORTUNITIES

#### OUR STRATEGY: AN INTEGRATED MULTI-ENERGY COMPANY

**1. How can we respond to current energy demand while preparing for the future?**

The energy transition is underway but the world still uses fossil fuels to meet 81% of its energy needs. So to keep global warming to well below 2°C, in line with the Paris Agreement, we must drastically reduce our consumption of fossil fuels (coal, oil, gas) and make the world energy system evolve by building the new low-carbon energy system at a much faster pace. Our collective challenge – which became evident in 2022 – is to reconcile the energy transition with the need for energy security and concerns over its cost. When the supply of oil or natural gas is restricted while demand continues to rise, the resulting price increases and supply insecurity have an immediate and acute impact on communities. To meet the challenge of the energy transition and still ensure that reliable energy is available in the short term at the lowest possible cost, we need to invest in two energy systems simultaneously: we must ensure the current system continues to operate responsibly, and at the same time speed efforts to build a new system centered on low-carbon energies (renewable electricity, biofuels and biogas, clean hydrogen and synthetic fuels, CCS solutions for offsetting residual fossil-fuel emissions).

We can also leverage two measures that will deliver immediate results: replacing coal in energy applications whenever possible, and investing heavily to improve energy efficiency.

That, in essence, is TotalEnergies' strategy: to continue providing the energy the world needs now, notably natural gas to replace coal, while responsibly and sustainably accelerating the transition to low carbon energy solutions. This is how, in practice we support to the goals of the Paris Agreement, which calls for reducing greenhouse gas emissions in the context of sustainable development and the fight against poverty, and which aims to keep the increase in average global temperatures well below 2°C compared to pre-industrial levels.

Events in 2022 gave the Company renewed confidence in its strategy. We are investing with discipline, at a time when its markets continue to evolve at an uncertain pace. Its portfolio of multienergy businesses gives us the flexibility and discretion to position ourselves as a leader in the energy transition, regardless of its speed.

The energy transition depends, first, on electrifying energy use, which will require a massive increase in green electricity. TotalEnergies is expanding across the entire electricity value chain, from production of intermittent renewables for flexible power generation to natural gas, storage, trading and sales, with an eye on profitability. Our goal is to build an Integrated Power segment with a return on average capital employed higher than 10% and to rank among the world's top five providers of solar and wind energy by 2030, with gross capacity of 100 GW and an interim target of 35 GW by 2025 (we had reached 17 GW as of year-end 2022).

Second, the energy transition depends on the development of new, low-carbon energies (biofuels and biogas, clean hydrogen and synthetic fuels combining hydrogen and carbon) that TotalEnergies has the core skills to produce. We are expanding into these new markets by focusing on circular resource management and deploying less-mature technologies at our own sites to test its business viability.

For natural gas, a transition energy, TotalEnergies is pursuing growth across the liquefied natural gas (LNG) value chain to consolidate our position as the world's third-largest supplier. LNG plays a key role in the Net-Zero roadmap for many coal-consuming countries. It's also a perfect partner for intermittent renewable energies: flexible, controllable CCGT plants ensure a secure electricity supply in the face of unforeseen weather events and fluctuations in demand.

In the oil business, the Company is pursuing a highly selective strategy, restricting our capital expenditure to projects that are less carbon-intensive and have a low breakeven point. That strategy allows us to take full advantage of worldwide demand for oil, which continues to climb but is expected to start trending downward in the medium term as transportation goes electric; we can therefore ensure that our business operations remain profitable and resilient over the long term.

As they evolve, the energy markets are becoming increasingly interconnected and interdependent, particularly since electricity – the energy at the center of the transition – is a secondary energy, meaning that it depends on other energies and markets.

The integrated multi-energy strategy of the Company and its solid financial base are strengths that allow us to be a major player of the sustainable energy the world needs and make the most of the current changes, including the potential price volatility they may cause.

**2. A Net Zero Company by 2050 together with society**

With regard to greenhouse gas emissions, TotalEnergies is committed to shrinking its carbon footprint from production, processing and delivery to its customers. To begin with, the Company is moving forward with an ambitious action plan to reduce the greenhouse gas emissions for which we are responsible (Scope 1+2 emissions at our operated assets) to the strict minimum. The Company also invests in carbon storage and sequestration projects to "neutralize" its residual emissions and to be able to offer those CCS solutions to its major industrial customers.

Although the speed of transition will depend on the pace of change in government policies, consumer practices and corresponding demand, TotalEnergies has embraced the need to offer its customers affordable less carbon-intensive energy products, and to lend support to our partners and suppliers with their own low-carbon strategies.

Drawing on the actions already taken to revise our energy offerings and reduce carbon emissions from our operations, in 2022 TotalEnergies published an outline of how our businesses might evolve as we become a carbon-neutral energy company by 2050, together with society.

**By 2050, TotalEnergies would produce:**

- about 50% of its energy in the form of low-carbon electricity with the corresponding storage capacity, totaling about 500 TWh/year, on the premise that it develops about 400 GW of renewable capacity,
- about 25% of its energy, equivalent to 50 Mt/y, of decarbonized fuels in the forms of biogas, hydrogen or synthetic liquid fuels from the circular reaction: $H_2 + CO_2 \rightarrow$ e-fuels,
- about 1 Mb/d of oil and gas (about a quarter of the total in 2030, consistent with the decline envisaged in the IEA's Net Zero Scenario), primarily liquefied natural gas (roughly 0.7 Mb/day, or 25-30 Mt/y) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/y of polymers, of which two thirds would come from the circular economy.

**That oil and gas would represent:**

- Scope 1 residual emissions of about 10 Mt $CO_2$e/year, with methane emissions almost eliminated (to below 0.1 Mt $CO_2$e/year), those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks),
- Scope 3 emissions totaling about 100 Mt $CO_2$e/year.

To get to net zero together with society, TotalEnergies would help to "eliminate" the equivalent of 100 Mt/y $CO_2e$ generated by its customers by developping:

- a carbon storage service activity for customers that would store 50 to 100 Mt/y $CO_2e$,
- an industrial e-fuels business that would prevent 25 to 50 Mt/y $CO_2e$ for the Company's customers through their production with a 100% green hygrogen, while offsetting the intermittent nature of renewable energies to make them a viable replacement for fossil fuels.

### 3. 2020-2030: a decade of transformation for now and the future

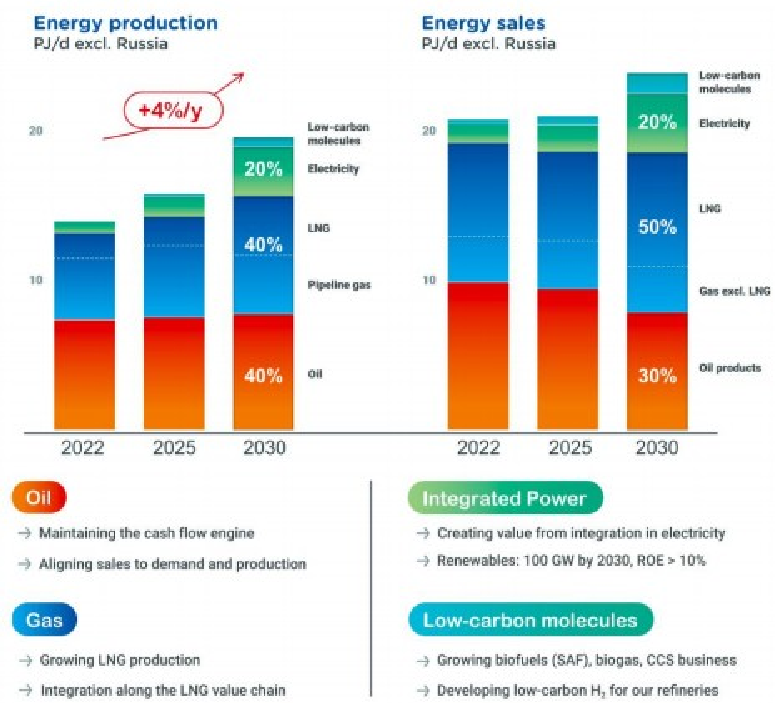
The vision of TotalEnergies potential transformation by 2050 is backed by an investment policy designed to accelerate access to low-carbon solutions (electricity and renewable energies, biogas and biofuels, low-carbon fuels, CCS) while we continue to meet the world's current energy demand. The world's population continues to grow and the inhabitants of emerging nations have legitimate aspirations to a higher standard of living, comparable to that of Western countries. The years 2020 to 2030 will mark TotalEnergies' transformation into a multi-energy company.

**In practical terms, over the coming decade to 2030, TotalEnergies' ambition is to:**

- increase its energy production from 14 PJ/d to 20 PJ/d to meet growing demand. Electricity (primarily renewable power) would account for half that increase, with target power generation of about 130 TWh, and liquefied natural gas would make up the balance, while oil production in the years up to 2030 would remain generally stable,
- pursue efforts to decarbonize the energy products offered to end customers, by decreasing its sales of petroleum products by more than 30% to align those sales with production of about 1.4 Mb/d. That reduction is consistent with the strategy of integration across value chains, and reflects the anticipated decline in fuel demand in Europe, where the shift to electric road transportation is well underway. As a result, oil will account for no more than 30% of its total sales, compared to 53% in 2019.

That forecast trend in business operations up to 2030 underlies TotalEnergies' carbon emissions commitments over that same period.

**Production and sales of energy**




## TRANSFORMING OURSELVES TO REINVENT ENERGY

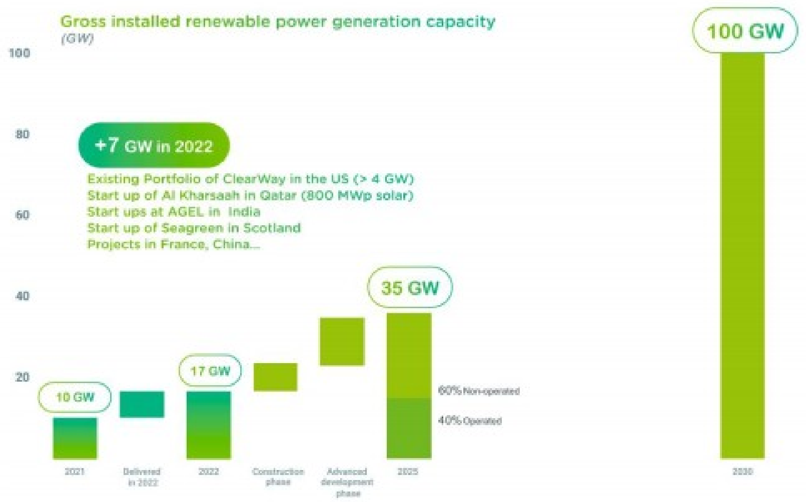
### 1. Low-carbon electricity: growth and profitability

Serving energy demand with low-carbon electricity is a key focus in the roadmaps of countries committed to reaching carbon neutrality by 2050. As a result, electricity is a fast-expanding market in which TotalEnergies is experiencing profitable growth. The Company's objective is to reach a gross capacity for renewable electricity of 35 GW by 2025 and 100 GW by 2030, a level that would put it among the world's top five producers of renewable electricity (wind and solar).

To achieve growth with a return on average capital employed of more than 10%, the main levers are as follows: choosing projects selectively, integrating across the electricity value chain (generation, storage and trading, B2B and B2C sales), leveraging project management and offshore development skills to control costs, tapping external financing at competitive rates and making partial divestments in order to accelerate cash flow generation from projects and diversify the Company's portfolio exposure.

### a. Executing the roadmap in renewables

The gross installed capacity of renewables rose from 10 GW in 2021 to 17 GW in 2022. The 2025 objective for 35 GW gross installed capacity (worldwide) is secured; as the Company is now working on projects to achieve its 2030 objective of 100 GW. The move to gain 100% control of Total Eren in 2023 and its integration will help meet that goal.




### b. Creating value by integrating across the electricity value chain

#### Developing flexible generation and storage capacities

The intermittence of solar and wind projects creates a need for flexible generation and storage capacity to ensure supply meets demand at all times and to guarantee grid stability.

**Flexible generation:** The Company began building a dispatchable power generation portfolio in 2015 comprised of combined-cycle gas turbine (CCGT) plants. This portfolio's capacity reached 5.6 GW[(1)] in 2022 with the commissioning of the CCGT in Landivisiau, France. With production of around 23 TWh in 2022 versus 8.4 TWh in 2021, these units helped offset the impact of weather events and the reduced availability of France's nuclear power plants. Ultimately, these capacities are targeted for decarbonization, either by their supply (biomethane or low-carbon hydrogen) or by sequestering their emissions (CCS).

**Storage:** TotalEnergies is leveraging the technological expertise at Saft Groupe, which is also making the most of this fast-growing market. In 2022, the Company commissioned a 25 MWh battery energy storage system (BESS) at the Carling platform. Saft Groupe also won significant contracts in New Zealand (100 MW BESS to enhance the stability of the national grid, while the production of intermittent renewable energies grows) and Côte d'Ivoire (10 MW ESS to facilitate grid integration of the country's first large-scale photovoltaic solar plant). **TotalEnergies has set itself a new objective for 2030: 5 GW of storage capacity deployed worldwide.**

#### Diversifying market exposure

TotalEnergies aims to build a portfolio with a good balance between regulated markets (mainly emerging countries) and deregulated markets (primarily OECD countries and Brazil). In the latter, which are often more competitive, the Company sees electricity prices trending upward over the long term and relies on a combination of long-term contracts (PPA[(2)] and Corporate PPA) and exposure to wholesale markets of up to 30% to make the most of the value created by price fluctuations. In 2022, TotalEnergies developed its electricity trading capacity which is both crucial for managing this exposure and a competitive advantage for optimizing the value of its projects.

#### Developing the customer portfolio

This integration goes all the way to sales to end customers, with packages tailored to consumers and businesses. By 2030 the Company has the objective to serve nearly 10 million consumers in Europe, and sell **130 TWh**. It also aims at **150,000 electric vehicle charging points**. For industrial customers, TotalEnergies offers long-term corporate purchase power agreements (Corporate PPAs) from its solar and wind farms, as well as distributed solar generation solutions.

In France, the Company is the market leader in solar power on buildings, having been awarded projects totaling more than 250 MW in the French Energy Regulatory Commission's CRE4 call for tenders since 2017.

## 2. Natural gas: a key fuel for the energy transition

### a. Pursuing TotalEnergies' growth in LNG

In the gas markets, TotalEnergies has put a priority on being present in liquefied natural gas (LNG), which can be shipped everywhere in the world. LNG accounts for around 11%[(3)] of the total gas market and saw strong growth in 2022 (up 6%[(4)]) due to interrupted pipeline shipments of Russian gas to Europe. The imbalance between LNG supply and demand led to sharp price increases, from which the Company benefited.

On the flip side, certain consumers have reduced their demand; Pakistan, for example, announced in February 2023 that it intended to use new coal-fired power plants rather than gas to meet future electricity demand.

For LNG to fully play its role in the energy transition, it must remain affordable and the associated greenhouse gas emissions must be controlled across the value chain. TotalEnergies is working on it.

(1) From nine CCGT plants, two combined heat and power units and one gas-fired power and desalination plant.
(2) Power Purchase Agreement.
(3) Source: IEA, World Energy Outlook 2022.
(4) Source: S&P Global, IHS Global LNG Trade Data 2022.

With 48 Mt sold in 2022, TotalEnergies has strengthened its position as the world's third largest LNG company[1]. Of these LNG sales, 99% went to countries that have committed to carbon neutrality, reducing the emissions intensity of their energy uses, especially compared to coal and fuel oil.

#### b. LNG: Contributing to Europe's energy security in 2022

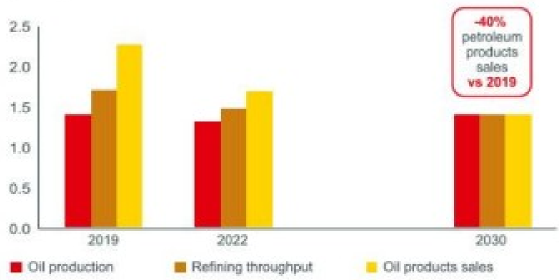
As the leader in regasification in Europe, TotalEnergies fully leveraged its capacities to offset the reduced deliveries from Russian gas pipelines by increasing the utilization rate from 50% in 2021 to 86% in 2022.

The connection of two additional floating storage and regasification units (FSRUs) in Lubmin, Germany (late 2022) and Le Havre, France (planned for the third quarter 2023) should lift the Company's total regasification capacity to more than 20 Mt in 2023. To supply these terminals, TotalEnergies is relying in particular on its position as the leading exporter of U.S. LNG to Europe with more than 10 Mt in 2022.

### 3. Anticipating changes in demand by adapting our petroleum products sales

**Production and sales of petroleum products**

*(Mboe/d)*




With its Green Deal and Fit for 55 legislative package, the European Union has taken practical steps toward achieving its ambition to become the first carbon-neutral continent, promoting the development of low carbon vehicles. These major trends are prompting TotalEnergies to pursue its strategy of reducing its sales of petroleum products by 40% by 2030, **so that it does not sell or refine more fuel than it produces oil**.

Conversely, this strategy is leading the Company to develop actively in new mobilities: In low-carbon molecules, with the conversion of refineries into biorefineries initiated in Europe. In electric mobility, with the acceleration of the deployment plan of charging points on major roadways and in large cities in Europe. In hydrogen, with the implementation of a European network of hydrogen stations for trucks in partnership with Air Liquide.

**In Europe**, the Company continued to transform its service stations network into multi-energy hubs (with high-power charge points and hydrogen) and was more selective in its petroleum product sales. In March 2023, TotalEnergies announced the sale of its service station networks in Germany and the Netherlands and the creation of a joint venture with Couche-Tard to operate its networks in Belgium and Luxembourg.

**In France**, TotalEnergies was the most active player in 2022 for deploying high-power charge points on motorways to meet both government and motorist expectations.

The Company confirmed that it will stop selling fuel oil for power generation by 2025.

#### Developing non-energy uses of oil that emit less GHG

In addition to their use as fuel to produce energy, petroleum products are also used as material or components. The share of non-energy and low-emitting uses (petrochemicals and lubricants) in oil consumption will increase as mobility turns to decarbonized solutions such as electricity. This is why the Company is pursuing its growth strategy in petrochemicals by focusing on integrated complexes with favorable conditions for access to feedstock.

In 2022 the Company announced the commissioning of a new ethane cracker at Port Arthur (Texas) with a production capacity of 1 Mt/y of ethylene.

**AMIRAL: Recovering more raw material by capitalizing on an existing asset**

In December 2022, TotalEnergies and Saudi Aramco announced an investment of $11 billion (of which $4 billion in equity, 37.5%-financed by TotalEnergies and 62.5% by Saudi Aramco) to develop Amiral, a petrochemicals complex in Saudi Arabia with an ethylene production capacity of 1.65 Mt/y. The project should integrate a steam cracker downstream of the SATORP refinery in Jubail, in which TotalEnergies holds a 37.5% interest alongside Saudi Aramco. The project should make it possible to capitalize on an existing asset that is both profitable and sustainable (first refinery in the region to obtain ISCC+ certification[2]) by valorizing products from Saudi crude into high value-added polymers at the Jubail industrial park. Reducing the site's environmental footprint is a central aspect of the project, with the goal of not increasing GHG emissions by 2030 and building a wastewater treatment plant that will save up to 8 $Mm^3$ of water per year.

### 4. New low carbon energies

Electrification of uses alone may not be able to meet all needs, in particular in some sectors of transport (aviation, maritime) and heavy industry.

The energy transition also requires the development of low carbon energies based on the conversion of biomass and waste or the production of e-fuels using low carbon hydrogen and $CO_2$ as a raw material. TotalEnergies is developing these new energies (biofuels, biogas, hydrogen and e-fuels).

(1) Second largest private player, third player including QatarEnergy; Company data.
(2) International Sustainability and Carbon Certification. ISCC+ certification indicates that traceability is ensured from collection of inputs (biomass or waste and residues) to the conversion process, in compliance with the ISCC standard.


#### a. Biofuels

Over their lifecycle, biofuels emit 50% less $CO_2$e than their fossil equivalents (in accordance with European standards[1]), making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstock (plants, residues, sugar, etc.) is hampering growth. Among those biofuels, TotalEnergies is putting a priority on producing sustainable aviation fuels (SAF) to decarbonize the aviation industry. Other decarbonization options besides biodiesel are available for road transportation, in particular electricity.

To avoid competition for arable land, TotalEnergies is developing solutions based primarily on food industry waste and residues. The agricultural feedstocks used to make these products comply with sustainability and traceability requirements concerning carbon footprint, non-deforestation and land use. The Company stopped the supply of palm oil and its derivatives in 2022 and has set a new target that **raises the share of circular feedstocks (used oil and animal fat) to more than 75% of feedstocks used to produce biofuels as from 2024**. In 2022, TotalEnergies signed an agreement with Saria to supply the future Grandpuits biorefinery with this type of feedstock.

#### b. Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas consisting primarily of methane. Compatible with existing transportation and storage infrastructure, it has a key role to play in decarbonizing the use of gas products (power generation, heating). As with biofuels, the roadblocks to development of biogas are the cost and local availability of feedstock.

TotalEnergies is rapidly ramping up in this market, which is essentially local. After acquiring Fonroche Biogaz in France and creating a joint venture with Clean Energy in the United States in 2021, the Company's biomethane production doubled to 0.5 TWh in 2022. The BioBéarn (France) biogas plant came on stream in January 2023 with a planned capacity of 160 GWh per year, making it the largest in France.

The Company's objective is to produce 2 TWh/y of biomethane by 2025 and up to 20 TWh/y by 2030 worldwide.

To get there, it is forming strategic partnerships with the agricultural and wastewater treatment sectors to develop growth hubs in Europe and the United States. Thanks to the acquisition of PGB's activities, the main biogas producer in Poland, announced in March 2023, TotalEnergies plans to reach a capacity of 1.1 TWh/y, which should make it the second largest European biogas producer.

#### c. Hydrogen and e-fuels

**Hydrogen:** TotalEnergies is working to decarbonize the hydrogen used in its European refineries by 2030, a move that should reduce $CO_2$ emissions by 3 Mt/y by 2030. In addition to the partnership launched in 2021 at the Normandy refinery, TotalEnergies and Air Liquide signed a partnership agreement in November 2022 to build an innovative and virtuous system thanks to its circular integration of production and valorization of renewable hydrogen, at the Grandpuits biorefinery. At La Mède (France), the Masshylia project to produce green hydrogen in partnership with Engie is advancing.

**E-fuels:** In the longer term, the use of $CO_2$ as a feedstock will make it possible to decarbonize certain transportation sub-sectors even more broadly. Captured $CO_2$ can be combined with green hydrogen to produce synthetic fuels. TotalEnergies is staking out a position in this market. In early 2022, in the United Arab Emirates, the Company joined the initiative of Masdar and Siemens Energy to build a pilot green hydrogen plant that will be used to convert $CO_2$ into sustainable aviation fuel (SAF). TotalEnergies is also developing pilot facilities near its Leuna refinery in Germany dedicated to the use of green hydrogen and captured $CO_2$ to produce molecules that will be used to make sustainable aviation fuel.

### OUR CLIMATE AMBITION: NET ZERO EMISSIONS BY 2050, TOGETHER WITH SOCIETY

The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TotalEnergies has factored this development into its strategy and set itself the ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society.

TotalEnergies promotes a policy of reducing GHG emissions based on the following principles in order of priority:

- avoid emissions,
- reduce them by using the best available technologies,
- offset the residual emissions thus minimized.

(1) According to the sustainability and GHG gas reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources.

## OUR OBJECTIVES

TotalEnergies sets the intermediate targets by 2025 and 2030:

### At the global level

#### Our emissions

1. Achieve **by 2050 or earlier** carbon neutrality (net zero emissions) for TotalEnergies' operated activities **(Scope 1+2)** with intermediate targets of:
   - reducing GHG emissions **(Scope 1+2)** from its operated facilities from 46 Mt $CO_2e$ in 2015 to less than 38 Mt $CO_2e$ by 2025,
   - reducing net emissions[1] of GHG (Scope 1+2) for its operated activities by at least 40% by 2030 compared to 2015, thus bringing net emissions to between 25 Mt $CO_2e$ and 30 Mt $CO_2e$,
   - reducing **methane** emissions[2] from its operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030,
   - reducing **routine flaring**[3] to less than 0.1 $Mm^3/d$ by 2025, with the goal of eliminating it by 2030.

#### Carbon footprint of products sold

2. Achieve **by 2050 or earlier** carbon neutrality (net zero emissions) for indirect GHG emissions related to its customers' use of energy products **(Scope 3)**, together with society.

   The Company's intermediate targets compared to 2015 are to:
   - maintain **Scope 3 (world)** GHG emissions related to its customers' use of energy products to a level lower than 400 Mt $CO_2e$, by 2025 and 2030,
   - reduce **Scope 3** GHG emissions from the **petroleum products** sold worldwide by more than 30% by 2025, and by more than 40% by 2030,
   - reduce the lifecycle **carbon intensity** of energy products used by customers by more than 15% by 2025, and by more than 25% by 2030.

## OUR LEVERS TO ACHIEVE OUR AMBITION OF NET ZERO EMISSIONS

To get to net zero by 2050, together with society, TotalEnergies is transforming into a multi-energy company and deploying specific action plans to reduce its emissions and achieve its short- and medium-term objectives.

The Company is taking action to:

- reduce emissions from its operated industrial facilities (Scope 1+2) and report on the progress made at its operated and non-operated facilities,
- reduce the indirect emissions related to its products (Scope 3), together with society – *i.e.*, its customers, its suppliers, its partners and public authorities – by helping to transform its customers' energy demand.

## A. REDUCING SCOPE 1+2 EMISSIONS, USING THE BEST AVAILABLE TECHNOLOGIES

## OBJECTIVES

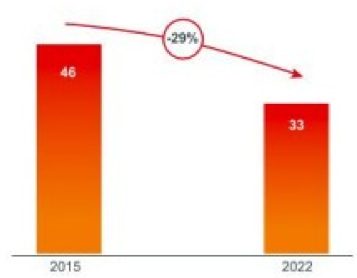
### We are moving aggressively to curtail emissions at our operated sites

In 2022, GHG emissions from our operated assets were 13% lower than in 2015, standing at close to 40 Mt $CO_2e$. Our objectives emissions include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of CCGT plants.

Across the 2015 scope of the Company's oil and gas activities, Scope 1+2 emissions from its operated facilities fell by more than **29% from 2015 levels, dropping from 46 to 33 Mt $CO_2$ in 2022.** In 2022, with more than 110 GHG emissions reduction projects coming to fruition, we reduced our Scope 1+2 emissions by 0.8 Mt $CO_2e$ across our operated facilities. Examples of our emissions reduction projects in 2022:

- Upstream: Emissions reduced by about 70 kt $CO_2/y$ thanks to improvements in gas turbine efficiency and refinements to water injection pumps in Angola (Block 17),
- Refining: Emissions reduced by about 200 kt $CO_2/y$ through improvements in energy use and recovery (Normandy, Antwerp).

**Oil & gas facilities**
**Scope 1+2 operated 100%** *(Mt $CO_2e$)*




(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.

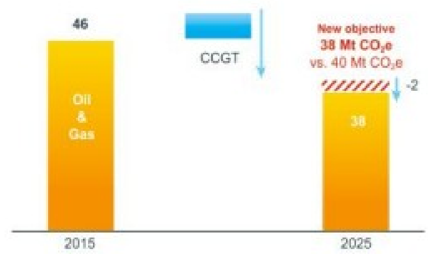
### 38 Mt $CO_2e$/year: A new bolder objective for 2025

In September 2022 the Company decided to launch a two-year, $1 billion plan to accelerate its energy efficiency initiatives with the goal of saving nearly 2 Mt $CO_2e$ across its oil and gas operations.

Thanks to that plan, TotalEnergies is accelerating our target emissions reduction for 2025 by 2 Mt $CO_2e$ annually: its new 2025 objective is to reduce Scope 1+2 emissions at its operated facilities to less than 38 Mt $CO_2e$,/y. Our objective in 2030 remains inchanged at -40% in 2030 compared to 2015, net of 5 to 10 Mt from natural carbon sinks.

To reach it, the Company is mobilizing every tool at its disposal to prevent and reduce emissions from its operations. Offsetting from natural carbon sinks will begin in 2030, to offset residual emissions in pursuit of its objective.

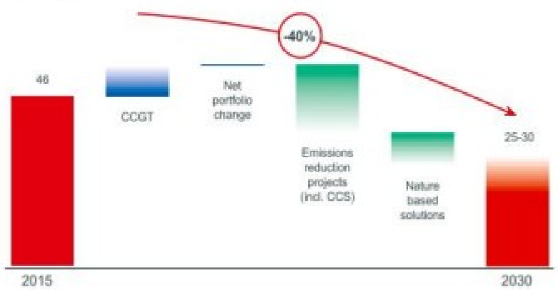
**Scope 1+2 at operated facilities - 100%** *(Mt $CO_2e$)*




### 2030 objective consistent with Paris Agreement

This objective of a 40% reduction in net emissions[1] of GHG (Scope 1+2) for the operated activities is in line with the reduction target of the European Union's "Fit for 55" program (-37% between 2015 and 2030) and the IEA's Net Zero Emissions 2022 (-35% between 2015 and 2030).

**Scope 1+2 at operated facilities - 100% 2015-2030**
*(Mt $CO_2e$)*

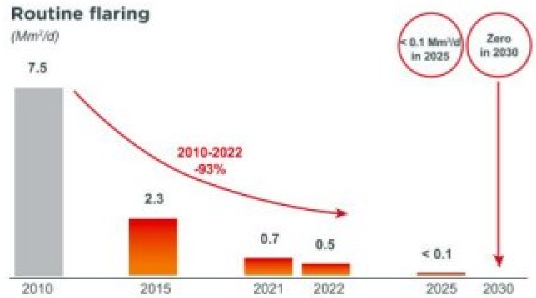



## IMPROVE THE EFFICIENCY OF OUR FACILITIES

**Progress toward eliminating routine flaring**

Curbing routine flaring is a priority for reducing $CO_2$ and methane emissions. In 2000, TotalEnergies committed to discontinuing routine flaring on its new projects. As a founding member of the World Bank's "Zero Routine Flaring by 2030" initiative since 2014, the Company has pledged to end this type of flaring by 2030 and its goal is to reach a level below 0.1 $Mm^3$/d by 2025. The volume of routine flaring fell from 0.7 $Mm^3$/d in 2021 to 0.5 $Mm^3$/d in 2022 - a 93% reduction between 2010 and 2022. Total flaring, including safety flaring as well as routine and non-routine flaring, fell 7% in 2022 from the previous year. As an example of reduction projects in 2022, flaring was cut at Italy's Tempa Rossa field by 32 kt $CO_2e$ thanks to changes in fluid export and separation processes.

**Routine flaring**
*($Mm^3$/d)*




(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.

### $1 Billion plan Over Two Years for Faster Energy Efficiency Results

Generating energy savings in the Company's operations yields dividends in several ways: TotalEnergies contributes to the collective campaign for energy efficiency, helps to reduce its carbon emissions and lowers its costs.

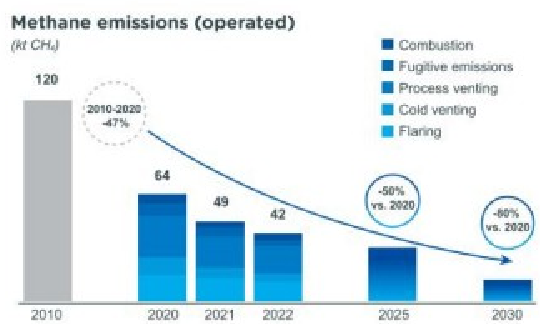
In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. To that end, the Company will be investing $1 billion in 2023 and 2024 in efforts to further reduce its energy use.

This plan, centered on four key pathways and led by OneTech, supports the measures adopted over the past several years within the Company's operating segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 30 initiatives at Marketing & Services and Integrated Gas, Renewables & Power.


## PROGRESS TOWARD ELIMINATING METHANE EMISSIONS

Methane is a greenhouse gas with a global warming potential 28 times higher than that of $CO_2$ and a much shorter atmospheric lifetime[1]. This makes controlling methane emissions a priority in efforts to attenuate global warming. To date, 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come from energy, waste and agriculture. Around 25%[2] stem from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to reduce methane emissions to close to zero by 2030. TotalEnergies is working towards this goal through the Oil & Gas Climate Initiative (OGCI) and wants its conduct to be exemplary.

The Company has been working on this issue for many years and has already halved its methane emissions between 2010 and 2020.




### A clear ambition: Zero methane and tangible objectives

In early 2022, the Company set very ambitious, specific targets for the decade ahead: **-50% by 2025 and -80% by 2030, compared to 2020**[3]. These targets cover all of the Company's operated activities and are in line with the 75% reduction in methane emissions from coal, oil and gas between 2020 and 2030 outlined in the IEA's Net Zero Emissions by 2050 scenario. The Company has also maintained its methane intensity target[4] of below 0.1% for its operated gas facilities. In 2022, its methane emissions[5] declined by 42 kt, or 34% from 2020 levels.

In addition, TotalEnergies is working with its partners to implement best practices at its non-operated assets.

(1) Around 12 years compared with centuries for $CO_2$. Global Warming Potential of 80 over 20 years and 28 over 100 years Global Warming Potential at 100 years, according to the IPCC 5th Assessment Report, 2014.
(2) IEA - Global Methane Tracker 2022.
(3) Excluding biogenic methane.
(4) The intensity of methane emissions in relation to the commercial gas produced.
(5) Of which 97% from Upstream.

### Deployment of AUSEA drones: From estimating to measuring methane emissions

Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions in real-life conditions, thanks to the AUSEA (Airborne Ultralight Spectrometer for Environmental Application) drones deployed across virtually all its operated sites worldwide. In 2022, a campaign to detect and measure emissions on site in real-life conditions covered 95% of operated sites[1] in the Upstream. More than 1,200 AUSEA flights were carried out in eight countries to cover 125 sites.

AUSEA detection technology, which consists of an ultra-light $CO_2$ and $CH_4$ sensor mounted on a drone, was developed in cooperation with the French National Center for Scientific Research (CNRS) and Université de Reims Champagne Ardennes. It is at the cutting edge of scientific research for detecting and quantifying methane emissions on site, with a high level of accuracy (>1kg/h).


TotalEnergies is in advanced discussions with certain operators of our non-operated assets to make this technology available and to carry out targeted detection campaigns.

### Targeted actions for each methane source, asset by asset

The reduction in emissions is a direct result of an action program at the Company's facilities targeting each specific source of methane (venting, flaring, fugitive emissions and incomplete combustion) and adapted to the specific features of each asset.

### Leading the industry through OGMP 2.0

In its "An Eye on Methane" report for 2022, the United Nations Environment Programme (UNEP)[2], confirmed TotalEnergies' **Gold Standard** status. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

## EXPANDING GEOLOGICAL CARBON STORAGE TO REDUCE OUR EMISSIONS AND THOSE OF OUR CLIENTS

CCS (Carbon Capture and Storage) refers to an industrial and commercial process that involves capturing $CO_2$, collecting it from industrial sites known as "carbon hubs", transporting it via ship or pipeline and storing it under the seabed. Saline aquifers[3] and former oil and gas reservoirs offer a safe and permanent means of sequestering carbon. Under the IEA's NZE scenario, the world will still be consuming oil and gas in 2050; consequently, the need for CCS has been assessed at 6 Gt $CO_2$ annually by 2050, compared to a current global volume of about 40 Mt $CO_2$ captured per year. The emerging CCS value chains require immediate investment if they are to be viable and bring carbon neutrality within reach. TotalEnergies is making that investment to reduce emissions from its facilities and those of its customers.

The Company's objective for 2030 is to store more than 10 Mt/y $CO_2$ on an equity share basis. Close to \$100 million were invested in 2022, and TotalEnergies plans to increase these investments to \$300 million annually in order to reach its objectives.

### From pilot projects to full-scale operation: the emergence of a new industry

In Europe, the North Sea has the potential to become a major CCS hub thanks to dedicated funds from the European Union (the Innovation Fund, the Connecting Europe Facility - CEF) or the increase of the ETS carbon price (80 €/t $CO_2$ at year-end 2022), as well as backing from neighboring countries: Denmark is allocating \$2.5 billion to CCUS projects in 2022 and 2023, while the United Kingdom is strengthening its regulatory framework for commercial CCS and boosting its financial support, with a package of £20 billion over 20 years. Moreover, Norway, the U.K. and Denmark have each launched a tender process to award exploration licenses for $CO_2$ storage.

The Company is developing several CCS projects in that region, where we can capitalize on this favorable regulatory climate. In 2022 its first commercial project, Northern Lights, reached an advanced stage of construction: drilling is currently underway and work has begun on the receiving terminal for $CO_2$ and transport vessels.

(1) Calculated as a percentage of 100% operated production.
(2) "An Eye on Methane": second IMEO report (Internation Methane Emissions Observatory).
(3) A saline aquifer used for $CO_2$ storage is a geological formation made up of sandstone in which highly saline water circulates, unsuitable for consumption or agricultural use and covered by an impermeable rock that allows the $CO_2$ to be contained permanently.

In August 2022, TotalEnergies and its partners have signed with Yara, ammonia and fertilizer plant, the world's first commercial agreement for the transport and storage of $CO_2$ captured on an industrial site in the Netherlands. As of 2025, 800 kt/y $CO_2$ should be captured, compressed, liquefied in the Netherlands, and transported to the Northern Lights site for permanent storage.

### Expanding $CO_2$ transportation and storage services for customers

In addition to Northern Lights, TotalEnergies is developing several CCS projects that all provide a new use for its operated gas reservoirs at the end of their working life and their offshore facilities.

#### Aramis Project, The Netherlands

This project – developed in the Netherlands by TotalEnergies alongside Shell, Energie Beheer Nederland (EBN) and Gasunie – should offer large-scale, flexible carbon transportation services and open access to offshore carbon storage capacity as a decarbonization solution for industry. Conceptual engineering for phase 1 of the project was completed in 2022 with the goal of storing the first volumes of $CO_2$ in 2027. The project is targeting storage of 5 Mt $CO_2$/y in its two initial stages, with potential annual storage capacity exceeding 8 Mt $CO_2$ by 2030.

#### Bifrost Project, Denmark

Bifrost is a CCS project aiming at developing infrastructure to link European industrial hubs with offshore storage in the North Sea. In partnership with Denmark's state-owned Nordsøfonden, TotalEnergies obtained two licenses in early 2023 encompassing the Harald natural gas fields it operates and a saline aquifer, to explore the area's $CO_2$ storage potential. TotalEnergies will operate under those licenses and plans to develop a project totaling more than 5 Mt $CO_2$/y by 2030, sourced from Denmark as well as Germany, Sweden and Poland.

### Reducing carbon emissions at the Company's facilities

CCS is also an important lever for reducing emissions at the Company's facilities, whether it is the operator or partner. Those projects span both upstream (native $CO_2$ capture and storage in Papua New Guinea and at Ichtys LNG) and downstream, with studies underway for the Normandy, Antwerp and Leuna refineries.

In May 2022, an agreement was finalized with Sempra Infrastructure, Mitsui & Co., Ltd. and Mitsubishi Corporation to develop the Hackberry Carbon Sequestration (HCS) project at Cameron LNG, a natural gas liquefaction terminal in the US state of Louisiana. The project will provide permanent storage of up to 2 Mt $CO_2$/y in a saline aquifer.

## OFFSETTING RESIDUAL EMISSIONS WITH NATURAL CARBON SINKS

Forest preservation and restoration can be levers to achieve carbon neutrality worldwide by 2050. The Paris Agreement encourages these solutions as a way to meet climate change mitigation targets, as well as the related market mechanisms for carbon credit trading. The COPs in Glasgow (2021) and Sharm El-Sheikh (2022) yielded progress toward that goal, with the adoption of rules for implementation of Article 6 of the Paris Agreement and the appointment of the supervisory body envisioned in Article 6.4.

Nonetheless, the ongoing enhancements to the framework for meeting that goal raise some complex issues. The civil society is rightly demanding measures to strengthen the integrity and permanence of emissions reductions obtained through carbon credits, and is warning of the need to manage risks that have adverse effects on people or the environment.

TotalEnergies is backing the efforts underway to create a climate of trust that addresses those legitimate concerns and ultimately yields a robust and reputable voluntary credit system, one that boosts public and private funding to ensure that projects beneficial to the climate, people and diversity can be developed at the appropriate scale. That is one of the challenges facing COP 28, to be held in the United Arab Emirates.

### Avoid, reduce, offset

The Company has embarked on a fundamental transformation in which the priority is to "avoid" and "reduce" emissions. Only in 2030 will TotalEnergies begin voluntary offsetting of its residual emissions via NBS (Nature Based Solutions) carbon credits, which will continue gradually until 2050, and will offset only its Scope 1+2 residual emissions, amounting to about 10% of the Company's global footprint.

To that end, the Company is investing in forestry, regenerative agriculture and wetlands protection projects. Its approach consists of combining and balancing the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When this is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

In 2022, TotalEnergies forged new partnerships and agreements with recognized stakeholders in Gabon, Peru, Southeast Asia and Guatemala. At year-end 2022, our stock of credits stood at just under 7 million. We have budgeted \$100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly \$675 million over their lifespan, with the accumulated credits expected to total 45 million in 2030 and 69 million over the lifespan of the projects. The final tally of credits obtained will be determined once the projects have been completed.

## WORKING WITH PARTNERS ON NON-OPERATED ASSETS

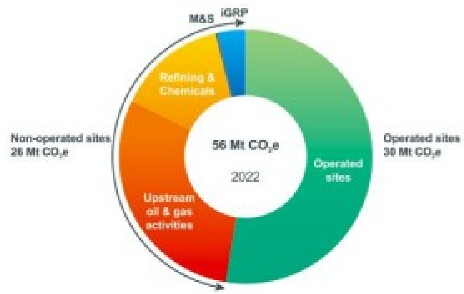
TotalEnergies' Scope 1+2 emissions based on equity share amounted to 56 Mt $CO_2e$ in 2022. Half of those emissions are attributable to its interests in sites it operates; the balance is from its interests in sites operated by its partners.

TotalEnergies is actively mobilizing its partners to reduce emissions from assets they operate:

- in the Exploration & Production segment, a **dedicated team** is tasked with sharing best practices with the partners at non-operated assets, such as deploying a decarbonization roadmap that includes an energy assessment, eliminating methane venting and routine flaring, and improving energy efficiency, particularly for gas turbines and compressors. We use the projects conducted at our operated sites to illustrate ways our partners can reduce their Scope 1+2 emissions and encourage uptake,
- **Carbon capture and storage (CCS)** is also an important lever for reducing direct emissions from assets operated by third parties. To that end, TotalEnergies shares its CCS expertise with its partners, as can be seen in the partnership with Sempra Infrastructures, which operates the **Cameron LNG** natural gas liquefaction plant,

– regarding **reduction in methane emissions**, TotalEnergies works with its partners at each non-operated site on methane emissions reduction, promoting the goal of zero methane by 2030 and implementing the OGMP 2.0 reporting framework. Feedback and best practices are shared with its partners, for instance via the **Methane Guiding Principles**. TotalEnergies is also a founding member of the Oil & Gas Climate Initiative (**OGCI**), whose 12 members have collectively met the goal of reducing the methane intensity of their operations significantly below 0.2%. The organization is promoting the **Aiming for Zero Methane Emissions** initiative, which seeks drastic reductions in methane emissions by 2030 across the entire oil and gas industry.

**Scope 1+2 based on equity share - 2022**




## B. OUR ACTIONS TO REDUCE INDIRECT EMISSIONS, TOGETHER WITH SOCIETY

### TotalEnergies' SCOPE 3 EMISSIONS

Under Scope 3 emissions, the Company reports those included in Category 11 of the GHG Protocol, "Use of Sold Products". To avoid double counting and omissions, and in accordance with the petroleum industry reporting guidelines published by IPIECA[1], the emissions counted are based on the largest emissions volumes in each value chain (oil, gas or biofuels), *i.e.*, the higher of production or sales.

In 2022, the calculation of Category 11 Scope 3 GHG emissions took into account sales of oil and biofuels (higher than production) and production of gas (higher than sales). Electricity generates no Category 11 Scope 3 emissions.


* Oil products including bulk refining sales.
** Natural gas and condensates excluding minority interests in listed companies.
The emissions associated with the various points on the value chains are not meant to be aggregated, given the integrated nature of TotalEnergies' operations.

*Illustration: Category 11 Scope 3 emissions at various points on the gas, oil and biofuels value chains in 2022.*

Under Scope 3 emissions, since 2016 TotalEnergies reports those included in Category 11 related to its customers' use of the products it sells, i.e., from their combustion to obtain energy, as customer use of these products constitutes the bulk of an energy company's Scope 3 emissions. This year, the Company is publishing for the first time an estimate[2] of indirect emissions under other Scope 3 categories according to the GHG Protocol and IPIECA classification. In addition to its objectives for Category 11 emissions, TotalEnergies is implementing action plans to reduce emissions in each of the other categories. These estimates are now reported in point 5.13 of chapter 5.

(1) IPIECA - Establishing petroleum industry value chain (Scope 3) greenhouse gas emissions.
(2) Changes in standards and methodologies for estimating emissions may lead the Company to adjust these estimates in the future.

## REDUCING SCOPE 3 OIL EMISSIONS AND GUIDING OUR CUSTOMERS TOWARD LOW-CARBON MOBILITY

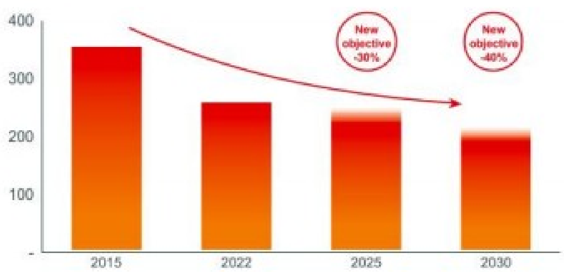
Transportation accounted for about 25% of the world's energy-related $CO_2$ emissions in 2021[1]. Decarbonizing mobility thus represents a major challenge.

### Accelerating the target for reducing the World Scope 3 Oil emissions

The Company is progressively adapting its downstream refining and distribution of petroleum products, which now accounts for a much smaller share of the energy mix of sales. Scope 3 - Category 11 emissions from the Company's oil value chain fell by more than 25% over 2015-2022.

**On the strength of that trend of Scope 3 Oil emissions[2], TotalEnergies is accelerating its targets aiming at a reduction of 30% by 2025, compared to 2015, instead of 2030 previously and to raise the reduction target to 40% by 2030.**

**Scope 3 Category 11 - Oil**
*(Mt $CO_2e$)*




### Road transportation: accelerating the shift to electric mobility and offering low-carbon fuels

Accounting for 19% of the world's energy-related $CO_2$ emissions, road transportation is far and away the highest-emitting form of mobility. TotalEnergies supports policies to reduce vehicles emissions. That's why it offers solutions for its customers to spur the adoption of electric mobility:

- **deploying charging infrastructure**, with a network of more than 42,000 operated charging points in 2022 (a 65% increase compared to 2021) **and a target of 150,000 charging points worldwide**,
- upgrading services, offering high power charging solutions along major highways (more than 160 in Germany, Benelux and France in 2022). The goal is to equip 700 sites with high-power charging points by 2025,
- **producing batteries for electric vehicles**: launch in 2022 of the construction of the ACC "gigafactory" in northern France, in partnership with Stellantis and Mercedes-Benz.

The marketing of **NGV** (based on natural gas or biogas) and **biofuels** can reduce GHG emissions from the existing automotive fleet until electric vehicles gain a broader market share. Thanks to the conversion of refineries into biorefineries in Europe, TotalEnergies can offer its customers HVO[3], a 100% bio-based biodiesel that can reduce $CO_2$ emissions from 50% to 90%[4] compared to conventional fuels. In 2022, TotalEnergies distributed 3.3 Mt of biofuels and is aiming for more than 15 Mt by 2030.

The Company is also promoting growth in low carbon **hydrogen** as a mobility solution, particularly for trucks. In 2022, it continued to provide backing to Hysetco, a company that is promoting hydrogen-based urban mobility though a taxi fleet and network of dedicated charging stations.

### Air transportation: developing Sustainable Aviation Fuel

Air transportation is responsible for 2% of the world's energy-related $CO_2$ emissions and is still one of the most difficult sectors to decarbonize. Nonetheless, in October 2022, the members of the International Civil Aviation Organization (ICAO) pledged to achieve net zero emissions by 2050.

The adoption of **Sustainable Aviation Fuels** (SAFs) represents one of the biggest tools in the sector's arsenal for decarbonizing the aviation industry. SAFs can reduce carbon emissions by up to 90% over their entire lifecycle[5]. In 2022 TotalEnergies set an ambitious target of capturing **10% of SAF sales worldwide by 2030** and is working with companies across the value chain, from suppliers of bio-based feedstock to customers that are incorporating SAFs into their aircraft fuel. The challenge is to achieve economies of scale in the sector so as to reduce costs and boost adoption of this sustainable solution by its customers.

In December 2022, TotalEnergies signed a memorandum of understanding with Air France-KLM to deliver more than 800 kt of SAF over the 10-year period from 2023. The fuel is expected to be produced in the Company's biorefineries in France for flights departing from France and the Netherlands.

In Qatar, TotalEnergies joined Masdar and Siemens Energy to provide its energy expertise for SAF production. In Japan, TotalEnergies partnered with ENEOS Corporation in April 2022 to develop a SAF sustainable supply chain for the ENEOS refinery in Negishi by 2025.

### Shipping: LNG and bioLNG

The shipping industry, which generates about 3% of the world's energy-related $CO_2$ emissions according to the IEA, has already moved aggressively to shrink its carbon footprint, notably via International Maritime Organization (IMO) rules aimed at halving emissions from shipping by 2050 compared to 2008.

To help its maritime customers reduce their emissions, TotalEnergies has pledged to supply LNG[6] (a 10% global market share target in 2030), bio-LNG and biofuels to strategic bunkering hubs. For the longer term, TotalEnergies is collaborating with partners from shipping industry coalitions and inter-industry R&D initiatives to shape the future market for decarbonized shipping fuels, including advanced biofuels, biomethane, and green synthetic methanol and ammonia.

As part of its LNG sales, the Company assesses the "GHG emissions of the value chain of the LNG products sold", *i.e.*, the amount of GHGs emitted from the production of the gas to its final use.

(1) IEA Transport overview 2022, IEA $CO_2$ Emissions.
(2) GHG Protocol - Category 11.
(3) Hydrotreated Vegetable Oil.
(4) According to the Sustainability and GHG reduction criteria defined in Article 29 of Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable resources.
(5) Compared to conventional jet fuel. Source: "Panorama 2020 - Biocarburants incorporés dans les carburants en France", published by the French Ministery of Environment.
(6) Of which GHG emissions from combustion are approximately 40% lower than those of a typical heavy fuel oil.

## SCOPE 3 GAS AND CONTRIBUTION TO LOWER EMISSIONS FROM ELECTRICITY AND INDUSTRY

Gas-fired power plants are a flexible resource for power generation and can be mobilized quickly; as a result, they offer a secure backup for grids designed to be powered increasingly by intermittent renewable sources. Gas-fired plants discharge half the greenhouse gases of the coal-powered plants that still, in some countries, account for the majority of power generation capacity. Natural gas can also replace coal or fuel oil for other applications, such as generating heat for industry or homes.

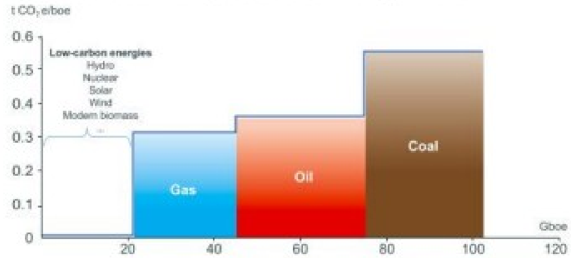
99% of the Company's LNG sales are made in countries that are aiming for carbon neutrality. A large percentage of the natural gas it sells goes to the electricity industry, where it usually competes with coal and fuel oil to provide marginal capacity for power generation.

In the light of the positive role played by natural gas, TotalEnergies has set a goal of increasing its share of sales by 2030, and has made the decision not to set a Scope 3 reduction target for this value chain. Whenever a plant powered by coal is replaced by a gas-fired plant, GHG emissions decline, while TotalEnergies' Scope 3 Gas emissions increase.

For the first time, TotalEnergies has done the exercise to estimate the potential emissions reductions to which its 2022 sales of LNG may have contributed. To do that, the Company identified the likely competing source of flexible power generation for each LNG-receiving country. When the final use of its clients is established and the alternative source of power is identified, the difference between emissions from the alternative fuel (heavy fuel or coal) and natural gas has been calculated, by using power generation emission factors of each country for each of these sources, as published by the IEA (except for France where the emission factors published by RTE France have been used). For the countries where the final use of LNG sales is not identified, this method is applied to sales volumes weighed by the percentage of power generation in the local natural gas consumption.

The Company estimated therefore the enabled emissions reductions from the use of LNG by its clients at around 70 Mt $CO_2e$.

**World energy supply 2021** *(Gboe)*
**and carbon intensity** *(t $CO_2$e/boe)* **by energy source**




*Source: IEA 2022 data on emissions from combustion activities; TotalEnergies analysis*

## ACCELERATING TO A 25% REDUCTION IN THE CARBON INTENSITY OF OUR SALES BY 2030

The lifecycle carbon intensity of energy products sold divides emissions over a product's lifecycle by the total quantity of of energy sold (refer to point 5.11.4 of chapter 5 for the definition of the indicator).

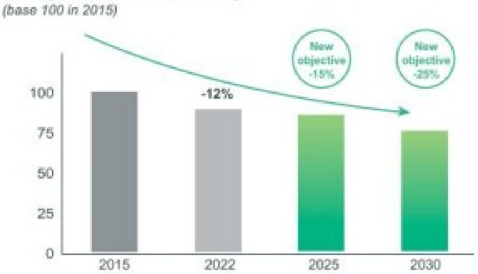
The indicator accounts for the impact of TotalEnergies' multi-energy transformation and its investments in low-carbon energies. Thus, it reflects its progress in decarbonizing the energy mix of its sales and helping its customers reduce their emissions.

In 2022, the Company maintained its progress by notching a 12% reduction in the lifecycle carbon intensity of its products since 2015, thanks to growth in its sales of LNG (up 15% in 2022 over the previous year) and electricity (+3%) and the diminishing share of sales from petroleum products (41% of the sales mix in 2022, compared to 44% in 2021). On the strength of that progress in 2022, the Company decided to raise its objectives and is now aiming to reduce carbon intensity by 15% in 2025 and 25% in 2030, instead of the 10% and 20% targets that were previously set.

Growth in electricity will drive more than half the reduction in the lifecycle carbon intensity between 2015 and 2030. Another factor will be reduced sales of petroleum products coupled with an increase in gas (and specifically LNG) production and sales of products derived from biomass. Lastly, carbon sinks and lower emissions from facilities will each account for about 5% of the reduction in carbon intensity.

TotalEnergies is positioning itself for the world's future energy supply and fulfilling its ambition of being a major force in the energy transition.

**Lifecycle carbon intensity**
*(base 100 in 2015)*




## DECARBONIZATION OF INDUSTRIAL AND COMMERCIAL CUSTOMERS OPERATIONS

As a producer of renewable power, biogas and biofuels, marketer and player of gas and electricity trading and a player in electric mobility, the Company is also helping its customers reduce their energy use by proposing them adapted solutions and is developing $CO_2$ storage solutions for its industrial customers.

Established in 2022, **TotalEnergies OneB2B Solutions** boasts more than thirty experts who assist its large customers across 11 industries in fulfilling their ambitions for the energy transition, thanks to solutions tailored to their needs.

In 2022, **TotalEnergies and Holcim** signed a memorandum of understanding to jointly study the complete decarbonization of a Holcim cement plant in Obourg, Belgium, that is currently being modernized. The partners will be evaluating an array of energies and technology with the aim of avoiding, reducing, capturing, storing and efficiently valorizing the 1.1 Mt $CO_2$ that the site emits each year. TotalEnergies is developing 31 MWp of floating solar panels to supply the site with low-carbon power. These panels should be installed on a former quarry of the cement plant and should be the largest floating solar farm in Belgium.

## ADVOCACY AND ASSOCIATIONS

Energy transition and limiting global warming are a global challenge. TotalEnergies will be able to take up these challenges only by involving actively its partners in particular through its mobilization with public authorities and professional associations.

### Mobilization of professional associations

TotalEnergies is a member of many professional associations and has published a list of its affiliations since 2016. The Company typically cooperates with these organizations on technical matters, but some also take public stances on climate. The Company ensures that these organizations hold positions aligned with its own, and regularly reviews each organization's stance on the climate issues.

Since 2019, TotalEnergies has conducted every two years an assessment of the climate-related public positions of the main professional associations of which it is a member in particular on climate issues. A partial review is conducted in the intervening years. The monitoring and evaluation of associations continued in 2022 and a complete review began at the end of 2022 and is expected to be completed in mid-2023. In 2022 most of the new associations that the Company's entities joined are involved in the energy transition and low carbon energies.

For the associations with positions on climate, the Company examines whether they are aligned with its own, based on the following six principles from its applicable Directive:

- **Scientific position:** TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change,
- **The Paris Agreement:** TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to achieve the objectives of this agreement,
- **Carbon price:** TotalEnergies supports the implementation of carbon pricing,
- **The development of renewable energies:** TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes and transport, such as hydrogen, carbon capture or the electric vehicle,
- **The role of natural gas:** TotalEnergies promotes the role of natural gas as "transition fuel", in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions to move towards the ambition of zero methane emissions,
- **The carbon offset mechanisms:** TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid - reduce by using the "best available technologies" - offset residual emissions thus minimized. TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.

### Support for government action and climate disclosures

TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website.

- **In Europe, TotalEnergies supports the "Fit for 55" package** and specifically some of its key components aligned with its strategy and its positions:
  - generalization of carbon pricing,
  - a large-scale expansion in renewable energies,
  - deployment of infrastructure (charging points, hydrogen),
  - development of low-carbon fuels and renewables for the transportation sector.

  Consistent with this support, the Company sent several responses to the European Commission's public consultations on climate in 2022. They are public, and may be viewed online and they address the measurement of emissions from transportation, certification of carbon sinks and renewable energy and solar energy projects. TotalEnergies has expressed its support for the European Union's carbon border adjustment mechanism as part of the EU emissions trading system. In a letter co-signed with Siemens, the Company has also indicated its backing of the European energy union to the President of France and Germany's Chancellor. TotalEnergies also supports the digital action plan supporting the energy transition from the European Round Table for Industry (ERT).
- **In the United States**, TotalEnergies supports the implementation of the Inflation Reduction Act and plans to capitalize on that legislation with a faster rollout of operations connected with renewable energies.
- **In France**, the Company has joined the EcoWatt initiative led by RTE, the operator of the country's electrical grid, to encourage responsible energy consumption.

Consistent with its transparency principle, in 2022, TotalEnergies lent its backing to new climate reporting standards proposed by the US Securities and Exchange Commission (SEC) and the International Sustainability Standards Board (ISSB). The Company is also cooperating with the Science Based Targets initiative that aims to develop standards applicable to its industry in order to identify criteria for compatibility with the goals in the Paris Agreement.

## C. OUR DECARBONIZATION PROGRESS IN 2022

Continued progress in 2022, aligned with, and often ahead of, with its objectives by 2030, demonstrates year after year the strong commitment in the transformation of the Company on the way to its ambition for 2050:

- Emissions from operated facilities have declined by more than 13% since 2015 - this takes into account 7 Mt $CO_2e$ of emissions from CCGTs corresponding to the implementation of its new strategy in the field of electricity to have flexible power generation capacities - the decrease on operated oil & gas facilities was therefore actually more than 30%.
- For indirect emissions associated with customers' use of its products, Scope 3 emissions worldwide have decreased since 2015,
  - for the part linked to petroleum products, the decline is by more than 27%,
  - the lifecycle carbon intensity indicator for the energy products sold **fell by 12% since 2015**, making TotalEnergies a leader among its peers in the decarbonization of its energy mix.

### 5.4.2.3 RESILIENCE OF THE ORGANIZATION'S STRATEGY

Very active management over the last few years has made the Company's portfolio more resilient. A 50% change of the upstream portfolio since 2015 ensures a replacement ratio of the oil reserves above 100% over 2015-21 (without Russia).

The portfolio benefits from a low breakeven point in line with the strategic objective of less than $30/b (Company's organic breakeven point before dividend of $23.2/b in 2022), ensuring competitive resources.

In particular, in the upstream segment, TotalEnergies has the lowest production cost per barrel and carbon intensity per barrel of oil equivalent (operated Scope 1+2) among its peers, at around $5/boe and 17 kg $CO_2$/boe in 2022, respectively.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

**Risk of stranded assets**

In June 2020, TotalEnergies has identified that among its upstream assets only the oil sands projects of Fort Hills and Surmont in Canada can be qualified as "stranded", meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. TotalEnergies decided to take into account only proved reserves for the depreciation tests on these two assets - contrary to common practice which considers proved and probable reserves, and not to approve any new project to increase capacities on these Canadian oil sands assets.

The characteristics of TotalEnergies' portfolio cushion the risk of having stranded assets in the future if a structural decline in demand for hydrocarbons occurs due to stricter global environmental regulations and constraints and a resulting change in consumer preferences.

**Sensitivity to $CO_2$, oil and gas prices**

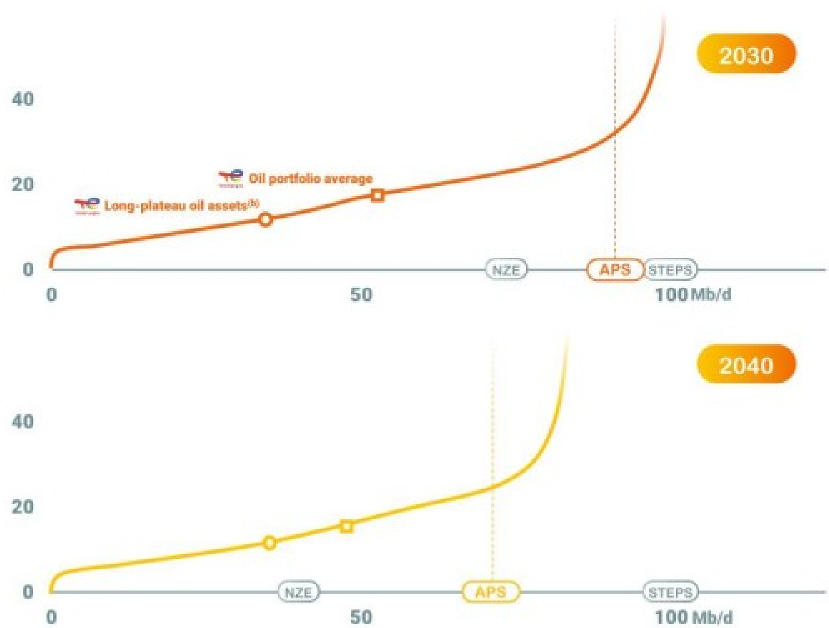
In addition, TotalEnergies assesses its portfolio's resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests. Each material investment – including in the exploration, acquisition and development of oil and gas resources, as well as in other energies and technologies – is reviewed in relation to the objectives of the Paris Agreement[1]; each new investment enhances the resilience of the Company's portfolio.

Even if carbon pricing does not currently apply in all of the Company's host countries, TotalEnergies includes a minimum carbon price of $100/ton in its investment criteria (or the current price in a given country, if higher), and beyond 2028, an annual increase of 2% is applied. Assuming a carbon price of $200/ton and an annual increase of 2% beyond 2028 (i.e., a $100/ton increase from the base scenario), TotalEnergies estimates a negative impact of around 15% on the discounted present value of its assets (upstream and downstream).

In relation to the reference scenario used to review investments (Brent at $50/b), application of the IEA's NZE price scenario would lower the discounted present value of the Company's assets (upstream and downstream) by around 15%.

As shown by the global oil supply cost curves for 2030 and 2040 by comparison with the different IEA scenarios, TotalEnergies' portfolio shows an average technical cost among the least expensive 50 Mb/d in these time horizons, in particular thanks to long-plateau and low production costs oil assets.

**Merit curve of global oil production[a]**
*Technical costs ($/b)*




(a) Sources: Rystad , IEA WEO 2022.
(b) Long-plateau TotalEnergies oil assets: United Arab Emirates, Libya, Iraq, Kazakhstan, Brazil (Mero, Atapu, Sépia).

(1) Refer to point 5.4.3.1 for more details.

**Depreciations of Upstream assets**

In addition, to ensure robust accounting of its assets in the balance sheet, the Company assumes an oil price trajectory stabilizing until 2030, decreasing then linearly to reach $\$_{2022}50$/b in 2040 and decreasing after 2040 towards the price retained in 2050 by the NZE scenario published by the IEA in 2022, *i.e.*, $\$_{2022}25$/b. Gas prices used in Europe and Asia decrease and stabilize as from 2027 until 2040 at levels lower than current price levels, with the Henry Hub price staying at $\$_{2022}3$/MBtu during this timeframe. They converge thereafter towards the IEA's NZE scenario prices in 2050.

## 5.4.3 Risk management

*TCFD correspondence table*

| THEME | Recommended TCFD disclosures |
|---|---|
| **Risk management** | |
| Disclose how the organization identifies, assesses, and manages climate-related risks | a) Describe the organization's processes for identifying and assessing climate-related risks.<br>b) Describe the organization's processes for managing climate-related risks.<br>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. |

### 5.4.3.1 PROCESSES TO IDENTIFY AND ASSESS RISKS RELATED TO CLIMATE CHANGE

Climate-related risks form part of the risks that are analyzed by the TotalEnergies Risk Management Committee. This committee relies on risk-mapping work. In addition, the Risk Committee (Corisk) assesses investment projects, risks and corresponding climate-related issues before they are presented to the Executive Committee.

In an inflationary global economy, it is essential to maintain investment criteria to ensure the profitability and resilience of the portfolio. Each significant investment project is evaluated in light of the objectives of the Paris Agreement, and on the basis of the following criteria:

- **project economics** are analyzed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at $50/b in accordance with the APS scenario of the IEA which limits the rise in temperatures at 1.7°C and Henry Hub at $3/Mbtu[(1)]) and considering a carbon price of $100/t (or the price of a given country if it is higher),
- **for new upstream oil and gas projects** (greenfield projects and acquisitions), the GHG emissions intensity (Scope 1+2) is compared, depending on their nature, to the average GHG emissions intensity of the company's upstream production facilities or to that of the various downstream units (LNG plants, refining). For Upstream projects, the threshold is lowered to 19 kg $CO_2$e/boe, compared to 20 kg $CO_2$e/boe previously, which illustrates the virtuous nature of these criteria. For additional investments on existing assets (brownfield projects), the project must lower the emissions intensity (Scope 1+2) of the asset in question. The objective is that each new investment contributes to lowering the average GHG emissions intensity (Scope 1+2) of the Company in its category,
- **for projects involving other energies and technologies** (biofuels, biogas, CCS...), the GHG emissions reductions are assessed based on their contribution to reducing the Company's emissions.

Finally, **renewable energy** projects are assessed to generate a return of more than 10% of equity.

In 2022, 43 investments were evaluated according to these criteria. The most significant ones by category are:

- **Upstream oil & gas activities**: extension of the CLOV field, development of the Begonia oil field and the Quiluma and Maboqueiro gas fields in Angola; Compression project on Snohvit and development of Eldfisk North in Norway, launch of Ballymore in the United States, Fenix gas project in Argentina, Lapa South West in Brazil,
- **Liquefied natural gas**: entry into NorthField East LNG and NorthField South LNG in Qatar for the Upstream segments and two FSRUs (one in France, the other in Germany) for the Downstream segments,
- **Petrochemicals**: Amiral Project in Saudi Arabia,
- **Integrated Power**: various projects (PV, wind and BESS) resulting from the acquisition of Clearway Energy in the US, acquisition of CoreSolar; ACC gigafactory in France,
- **Low-carbon molecules**: network of hydrogen stations for trucks in Europe; biogas: SouthFork in the United States, acquisition of PGB in Poland; SAF: new unit in Grandpuits, France,
- **Natural carbon sinks**: Maya in Guatemala and Tambopata in Peru,
- **CCS**: acquisition of storage permits in Denmark and for Ichthys in Australia.

**For projects greenlighted in 2022:**

- profitability exceeds the threshold defined internally, in a scenario compatible with the Paris Agreement's objectives, with the exception of natural carbon sink projects, which are evaluated on the basis of the actual cost of a ton of $CO_2$,
- the GHG emissions intensity (Scope 1+2) is below the average intensity of their category for new oil and gas projects and reduced for brownfield projects, keeping in mind that additional measures to control emissions will be needed since the emissions intensity of certain upstream projects increases over time as production declines.

(1) Increased from $2.5/Mbtu to $3/Mbtu, compared to last year.

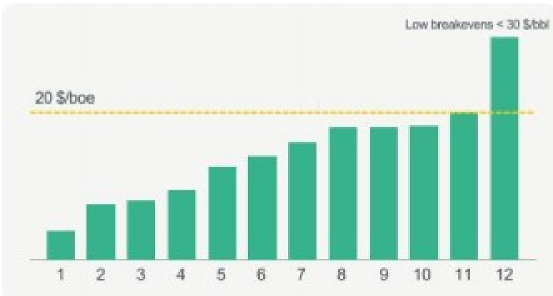
Upstream gives precedence to value creation and cash generation over volume and puts a priority on developing low cost (typically less than $20/b for operating and investment costs) or low-breakeven (typically less than $30/b after taxes) and low-emissions projects (typically less than 19 kg $CO_2$/b).

In accordance with the Company's biodiversity ambition, all new investment projects must also meet the "zero net deforestation" criterion.

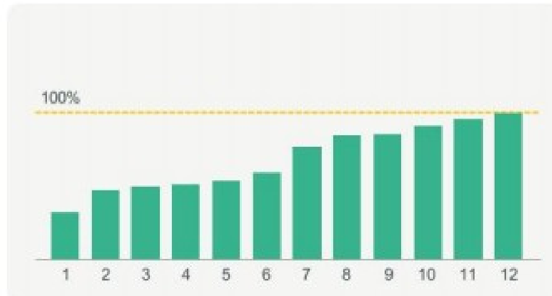
**Divestments 2022**

In 2022, divestments amounted to $1.4 billion and included the partial sale of renewable assets once they had started up, the sale of interests in Block 14 in Angola, the sale of shares by SunPower, the partial sale of the Landivisiau CCGT, and the sale of the Sarsang field in Iraq.

**Upstream + LNG oil & gas projects**
*Technical costs*




**Upstream + LNG oil & gas projects**
*Emissions intensity vs reference of its category (%)*




## 5.4.3.2 PROCESSES TO MANAGE RISKS RELATED TO CLIMATE CHANGE

In its decision-making process, the risks and associated climate issues are assessed prior to the presentation of the projects to the Executive Committee. If the level of risk requires it, they are subject to mitigation measures. TotalEnergies, in accordance with its Safety Health Environment Quality Charter, is committed in particular to managing its energy consumption and develops processes to improve its energy performance and that of its customers.

In terms of adaptation to climate change, two types of risks exist: physical risks and transition risks. The physical risks correspond to physical impacts of climate change such as the increase in occurences or severity of extreme weather phenomena. The transition risks are risks related to regulations, laws, technologies or market events linked to the transition (refer to point 5.4.2). The Company takes physical risks into account during the design phase of its new facilities. The climate hazards taken into account include the latest available IPCC data and the facilities TotalEnergies builds are designed to withstand extreme weather events. The analyses include a review by type of hazard (sea level, storms, temperature, permafrost, etc.) and take into account the lifespan of the projects and their ability to adapt gradually. The design of current projects incorporates the data published by the IPCC concerning the increase in climate hazards. For existing facilities, their vulnerability to climate hazards is reassessed re-evaluated in a continuous improvement process according to the evolution of scientific knowledge of the precise impacts of climate change, so that their consequences do not affect either the integrity of the facilities or the safety of people. More generally, natural hazards (climatic hazards, but also seismic hazards, tsunamis, soil conditions, etc.) are taken into account. The internal studies conducted have not identified any facilities that cannot withstand the consequences of climate change known to date.

## 5.4.3.3 INTEGRATION OF CLIMATE-RELATED RISKS INTO GLOBAL RISK MANAGEMENT

The risks related to climate issues are fully integrated in TotalEnergies's global risk management processes.

The Audit Committee annually reviews the Statement of Non-Financial Performance, which includes the performance as per the Company's climate and environmental reporting. In addition, these results are audited by an independent third party.

## 5.4.4 Targets and metrics to measure climate-related risks and opportunities

*TCFD correspondence table*

| THEME | Recommended TCFD disclosures |
|---|---|
| **Metrics & targets** | |
| Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material. | a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.<br>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.<br>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets. |

In order to support its ambition of carbon neutrality (net zero emission) at a global scale (Scope 1+2+3), together with society, TotalEnergies has set targets and introduced a number of indicators to steer its performance.

| Company Climate Targets | In facts |
|---|---|
| **2030 targets worldwide (Scope 1+2)** | |
| – Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt $CO_2e$ in 2015 to less than 38 Mt $CO_2e$ by 2025. By 2030, the target is a reduction of at least 40% of net emissions[1] compared to 2015 for its operated activities, thus bringing them to between 25 Mt and 30 Mt $CO_2e$ | – A reduction in GHG emissions (Scope 1+2) from operated facilities from 46 Mt $CO_2e$ in 2015 to **40 Mt $CO_2e$** in 2022 |
| – Improve the **energy efficiency** of operated facilities by 1% per year from 2010 | – **15%** improvement in energy efficiency between 2010 and 2022 |
| – Reduce **methane emissions**[2] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030 | – Methane emissions already reduced by **50%** between 2010 and 2020 and by **34%** between 2020 and 2022 |
| – Maintain **methane emissions intensity** below 0.1% of commercial gas produced at operated gas facilities | – Methane intensity of less than **0.1%** for operated gas facilities |
| – Reduce **routine flaring**[3] to less than 0.1 $Mm^3/d$ by 2025, with the goal of eliminating it by 2030 | – More than **90%** reduction in routine flaring between 2010 and 2022 |
| **2030 worldwide targets (Scope 3)** | |
| – Maintain **Scope 3**[4] GHG emissions related to its customers' use of energy products to less than 400 Mt $CO_2e$ by 2025 and 2030 | – Scope 3 GHG emissions limited to **389 Mt $CO_2e$** excluding the COVID-19 effect in 2022, below the level of 2015 |
| – Reduce **Scope 3** GHG emissions related to its customers' use of petroleum products sold worldwide by more than 30% by 2025 compared to 2015; by 2030, the objective is a reduction of at least 40% | – A decrease of the Scope 3 GHG emissions from the petroleum products sold of **27%** excluding the COVID-19 effect in 2022 compared to 2015 |
| **2030 worldwide target (carbon intensity)** | |
| – Reduce the **lifecycle carbon intensity** of the energy products used by customers by more than 25% compared to 2015. By 2025, the target reduction is at least 15% (**Scope 1+2+3**) | – A decrease of the carbon intensity of **12%** between 2015 and 2022 |

It should be noted that the decrease in the Company's GHG emissions (Scope 1+2+3) in 2020, and to a lesser extent in 2021, and in the first half of 2022 for Scope 3 emissions, is partly related to the impact of the COVID-19 pandemic on TotalEnergies's activities, hence the references to estimates excluding the COVID-19 effect.

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(4) GHG Protocol - Category 11.

**Indicators related to climate change**[1]

| GHG emissions | | Operated domain 2022 | 2021 | 2020 | 2015 | Equity interest domain 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|---|---|---|---|
| **SCOPE 1 Direct GHG emissions** | **Mt $CO_2e$** | **37** | **34* *(33)*** | **38* *(36)*** | **42** | **51** | **49** | **52** | **50** |
| **BREAKDOWN BY SEGMENT** | | | | | | | | | |
| Upstream oil & gas activities | Mt $CO_2e$ | 14 | 14 | 16 | 19 | 22 | 23 | 24 | 22 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | Mt $CO_2e$ | 9 | 5 | 3 | – | 9 | 6 | 5 | – |
| Refining & Chemicals | Mt $CO_2e$ | 15 | 15* *(14)* | 17 | 22 | 20 | 19 | 22 | 27 |
| Marketing & Services | Mt $CO_2e$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | Mt $CO_2e$ | 23 | 20* *(19)* | 22* *(21)* | 22 | 21 | 18 | 20 | 22 |
| Eurasia (incl. Russia) / Oceania | Mt $CO_2e$ | <1 | 1 | 1 | 5 | 15 | 17 | 17 | 13 |
| Africa | Mt $CO_2e$ | 9 | 9 | 10 | 12 | 7 | 7 | 7 | 9 |
| Americas | Mt $CO_2e$ | 5 | 5 | 4 | 4 | 8 | 7 | 7 | 5 |
| **BREAKDOWN BY TYPE OF GAS** | | | | | | | | | |
| $CO_2$ | Mt $CO_2e$ | 36 | 32 | 34 | 39 | 50 | 47 | | |
| $CH_4$ | Mt $CO_2e$ | 1 | 1 | 2 | 2 | 1 | 1 | | |
| $N_2O$ | Mt $CO_2e$ | <1 | <1 | <1 | <1 | <1 | <1 | | |
| **SCOPE 2 Indirect emissions from energy use** | **Mt $CO_2e$** | **2** | **2* *(2)*** | **3* *(3)*** | **4** | **5** | **5** | | |
| Of which Europe: EU 27+ Norway + UK + Switzerland | Mt $CO_2e$ | **1** | 1* *(1)* | 2* *(2)* | 2 | **2** | 2 | | |
| **SCOPE 1+2** | **Mt $CO_2e$** | **40** | **37* *(35.7)*** | **41* *(38)*** | **46** | **56** | **54** | | |
| of which oil & gas facilites | Mt $CO_2e$ | 33 | 33* *(32)* | 39* *(36)* | 46 | 48 | 49 | | |
| of which CCGT | Mt $CO_2e$ | 7 | 4 | 3* *(3)* | – | 8 | 5 | | |
| Direct emissions of biogenic $CO_2$[2] | Mt $CO_2e$ | 0.1 | | | | 0.1 | | | |

| Methane emissions[a] | | Operated domain 2022 | 2021 | 2020 | 2015 | Equity interest domain 2022 | 2021 |
|---|---|---|---|---|---|---|---|
| | kt $CH_4$ | 42 | 49 | 64 | 94 | 47 | 51 |
| **BREAKDOWN BY SEGMENT** | | | | | | | |
| Upstream oil & gas activities | kt $CH_4$ | 41 | 48 | 62 | 92 | 43 | 48 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | kt $CH_4$ | 1 | <1 | <1 | 0 | 3 | 2 |
| Refining & Chemicals | kt $CH_4$ | 1 | 1 | 1 | 1 | 1 | 1 |
| Marketing & Services | kt $CH_4$ | 0 | 0 | 0 | 0 | 0 | 0 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | kt $CH_4$ | 7 | 7 | 12 | 9 | 5 | 5 |
| Eurasia (incl. Russia) / Oceania | kt $CH_4$ | 1 | 1 | 3 | 33 | 15 | 16 |
| Africa | kt $CH_4$ | 23 | 23 | 31 | 49 | 17 | 18 |
| Americas | kt $CH_4$ | 12 | 18 | 18 | 3 | 10 | 12 |

(1) Refer to point 5.11 of this chapter for the reporting perimeter.
(2) Biogenic $CO_2$ emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

300-301

| Other indirect GHG emissions | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| **SCOPE 3**[b] **Indirect GHG emissions related to the use by customers of energy products** | **Mt $CO_2$e** | **389*** *(381)* | **400*** *(370)* | **400*** *(350)* | **410** |
| **BREAKDOWN BY PRODUCTS** | | | | | |
| Petroleum products | Mt $CO_2$e | 254* *(246)* | 285* *(255)* | 320* *(270)* | 350 |
| Biofuels | Mt $CO_2$e | 4 | | | |
| Gas | Mt $CO_2$e | 130 | 115 | 80 | 60 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | Mt $CO_2$e | 191* *(187)* | 220* *(202)* | 215* *(190)* | 256 |
| Eurasia (incl. Russia) / Oceania | Mt $CO_2$e | 81* *(80)* | 79* *(77)* | | |
| Africa | Mt $CO_2$e | 77* *(74)* | 68* *(59)* | | |
| Americas | Mt $CO_2$e | 40* *(39)* | 33* *(31)* | | |

| Intensity indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| **Lifecycle carbon intensity of energy products used by the customers (73 g $CO_2$e/MJ in 2015)** | **Base 100 in 2015** | **88** | **90*** *(89)* | **92*** *(90)* | **100**[c] |
| Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities[d] | kg $CO_2$e/boe | 17 | 17 | 18 | 21 |
| Intensity of GHG emissions (Scope 1+2) of Upstream oil & gas activities[d] on equity basis | kg $CO_2$e/boe | 19 | 19 | | |
| Intensity of methane emissions from operated oil & gas facilities (Upstream) | % | 0.11 | 0.13 | 0.15 | 0.23 |
| Intensity of methane emissions from operated gas facilities | % | <0.1 | <0.1 | <0.1 | <0.1 |

| Other indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| Net primary energy consumption (operated scope) | TWh | **166** | **148** | **147** | 153 |
| Renewable energy consumption (operated scope) | TWh | 1 | | | |
| Global energy efficiency indicator (GEEI) | Base 100 in 2010 | 85.1 | 87.0 | 90.2 | 90.8 |
| Flared gas (Upstream oil & gas activities operated scope) (including safety flaring, routine flaring and non-routine flaring) | $Mm^3/d$ | 3.3 | 3.6 | 4.2 | 7.2 |
| of which routine flaring | $Mm^3/d$ | 0.5 | 0.7 | 0.6 | 2.3[e] |

* Valuation of these indicators excluding the COVID-19 effect.
(a) Excluding biogenic methane emissions, equal to less than 1 kt $CH_4$ in 2022. Biogenic methane is nevertheless included in the calculation of Scope 1.
(b) Oil products including bulk refining sales and biofuels ; Natural Gas excluding minority stakes in public companies.
(c) Indicator developed in 2018, with 2015 as the baseline year.
(d) This indicator doesn't include integrated LNG assets in its perimeter.
(e) Volumes estimated upon historical data.

These data as well as the related risks are also reported to the CDP[1] once a year, and TotalEnergies's response to the CDP Climate Change questionnaire is posted on the TotalEnergies website. For its 2022 reporting on 2021 activities, the Company received an A-.

(1) The CDP is a non-profit organization that offers environmental reporting services for investors, enterprises, city authorities, States and regional authorities.

## 5.4.5 Participation in dialogue with TCFD

In June 2017, the TCFD[1] of the G20's Financial Stability Board published its final recommendations on information pertaining to climate to be released by companies. These recommendations include additional details for certain sectors, such as energy. TotalEnergies publicly announced its support for the TCFD and its recommendations and has implemented them since its 2017 annual report.

TotalEnergies continued discussions by taking part in the Oil & Gas Preparer Forum, which published, in July 2018, the best practices on the disclosure of climate-related information and on the implementation of TCFD recommendations by the four companies that are members of the Forum[2].

In 2019, TotalEnergies also took part in the first Task Force set up by the EFRAG (European Financial Reporting Advisory Group) Reporting Lab on Climate-related disclosures, which aims to identify the best practices in this area. This Task Force published the results of its work in February 2020.

In accordance with the latest TCFD recommendations published in October 2021(Guidance on Metrics, Targets and Transition Plan), a series of indicators and targets specific to climate risks is also being studied to facilitate reconciliation with financial performance data.

## 5.4.6 European Taxonomy

The Taxonomy regulation (EU) 2020/852 ("the Regulation") establishes a classification system common to the European Union, the objective of which is to identify the economic activities considered as sustainable, with reference to six environmental objectives.

These six environmental objectives defined at article 9 of the Regulation are as follows:

- climate change mitigation,
- climate change adaptation,
- the sustainable use and protection of water and marine resources,
- the transition to a circular economy,
- pollution prevention and control,
- the protection and restoration of biodiversity and ecosystems.

Within the meaning of article 3 of the Regulation, an economic activity shall qualify as environmentally sustainable where that economic activity:

- contributes substantially to one or more of the environmental objectives set out in Article 9,
- does not significantly harm any of the environmental objectives set out in Article 9,
- is carried out in compliance with the minimum safeguards laid down in Article 18 of the Regulation, and
- complies with technical screening criteria that have been established by the Commission.

The delegated regulation (EU) 2021/2139 of 4 June 2021 supplementing regulation (EU) 2020/852 of the European Parliament and of the Council establishes the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation. It also determines, for each of the environmental objectives listed in article 9 of the Regulation, the technical screening criteria for assessing whether that economic activity causes no significant harm to one or several of those environmental objectives.

The minimum safeguards of article 3 of the Regulation are procedures implemented by an undertaking to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.

In order to acknowledge "the role of natural gas as an important technology in reducing greenhouse gas emissions"[3], the delegated regulation (EU) 2021/2139 of 4 June 2021 has been supplemented with a supplementing Delegated Regulation (EU) 2022/1214 of 9 March 2022 on the activities related to natural gas and nuclear energy.

At the date of publication of this Universal Registration Document 2022, only the technical screening criteria relating to the first two environmental objectives - climate change mitigation and climate change adaptation - have entered into force. The technical screening criteria relating to the other four environmental objectives that will be established through delegated regulations are still being negotiated or drafted.

### REPORTING FRAMEWORK

Article 8 of the Regulation requires undertakings[4] to include in their *"consolidated non-financial statement information on how and to what extent the undertaking's activities are associated with economic activities that qualify as environmentally sustainable under Articles 3 and 9 of this Regulation"*.

In particular, the undertakings concerned shall disclose the following:

- the proportion of their Turnover derived from products or services associated with economic activities that qualify as environmentally sustainable,
- the proportion of their capital expenditure and the proportion of their operating expenditure related to assets or processes associated with economic activities that qualify as environmentally sustainable.

(1) Task Force on Climate-related Financial Disclosures.
(2) Eni, Equinor, Shell and TotalEnergies, with the support of the WBCSD (World Business Council for Sustainable Development).
(3) Refer to (28) of delegated regulation (EU) 2021/2139 of 4 June 2021.
(4) Undertakings which are subject to the obligation to publish a non-financial statement or a consolidated non-financial statement pursuant to Article 19a or Article 29a of Directive 2013/34/EU.

The delegated regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 specifies the content and presentation of information to be disclosed by undertakings concerning environmentally sustainable economic activities and specifying the methodology to comply with that disclosure obligation.

The delegated regulation specifies the following definitions:

- a taxonomy-eligible economic activity ("Eligible Activity") is an economic activity that is described in the delegated regulation (EU) 2021/2139 of 4 June 2021, irrespective of whether that economic activity meets any or all of the technical screening criteria laid down in this delegated act,
- a taxonomy-non-eligible economic activity is any economic activity that is not described in the delegated regulation (EU) 2021/2139 of 4 June 2021,
- a taxonomy-aligned economic activity ("Aligned Activity") is an economic activity that complies with the requirements laid down in Article 3 of the Regulation.

The disclosures obligations provided for in the delegated regulation are spread over several stages:

- article 10 of the delegated regulation (EU) 2021/2178 of 6 July 2021 requires non-financial undertakings to disclose in 2022, only the proportion of taxonomy-eligible and taxonomy-non-eligible economic activities in their total Turnover, capital and operational expenditure and the qualitative information referred to in the regulation relevant for this disclosure,
- from 1 January 2023, the reporting is completed with the disclosures of the proportion of the three indicators associated with taxonomy-aligned economic activities.

The indicators disclosed (Turnover, CapEx, OpEx) in the section 5.4.6.3 of this Statement of Non-Financial Performance relate to data for the 2022 financial year without comparative information for the 2021 financial year in the format required by Delegated Regulation (EU) 2021/2178 of 6 July 2021. Several additional information published in this same point are required by supplementing delegated regulation (EU) 2022/1214 of 9 March 2022 on the activities related to natural gas and nuclear energy.

### 5.4.6.1 ELIGIBILITY OF TotalEnergies' ACTIVITIES

TotalEnergies has calculated the proportion of its eligible and non-eligible economic activities under the Regulation on the basis of the provisions of the delegated regulation (EU) 2021/2139 of 4 June 2021 and the delegated regulation (EU) 2021/2178 of 6 July 2021.

The table below thus presents the proportion of its eligible economic activities of TotalEnergies on three financial indicators: turnover ("Turnover"), capital expenditure ("CapEx") and operating expenditure ("OpEx"), within the meaning of the Taxonomy regulation, on the scope of entities exclusively controlled and consolidated by TotalEnergies SE.

The table also presents, in a voluntary approach, proposed by the delegated regulation of 6 July 2021, a proportional view of the indicators Turnover and CapEx, including the contribution of joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method up to the amount of the interest held by TotalEnergies.

Given the size of the Company and the adopted development model using partnership to develop its strategy in the electricity and renewables sector, the proportional view is more relevant for TotalEnergies than the consolidated view.

**Summary of the ratios of Eligible Activities**

| | Controlled scope | | | Proportional view | |
|---|---|---|---|---|---|
| Eligible Activities (Financial year 2022) | Turnover | CapEx | OpEx | Turnover | CapEx |
| Electricity and renewables | 3.0% | 13.7% | 6.6% | 3,2% | 29.8% |
| *including electricity generation from natural gas* | *1.8%* | *0.3%* | *0.7%* | *1.6%* | *0.2%* |
| Biofuels and chemicals | 4.4% | 3.1% | 7.5% | 5.5% | 3.5% |
| Other Eligible Activities | 0.1% | 0.6% | 1.7% | 0.2% | 0.7% |
| **TOTAL 2022** | **7.5%** | **17.4%** | **15.8%** | **8.9%** | **34.0%** |
| ***TOTAL 2021*** | ***9.9%*** | ***13.4%*** | ***14.7%*** | ***11.2%*** | ***27.4%*** |

## ELIGIBLE ACTIVITIES OF TotalEnergies

TotalEnergies' Eligible Activities focus solely on the climate change mitigation objective.

- For the Integrated Gas, Renewables & Power segment, main Eligible Activities are as follows:
  - renewable energy activities include the electricity generation from renewable sources (wind, solar, bioenergy and hydroelectricity), the manufacture, installation, maintenance and repair of renewable energy technologies, as well as the manufacture of rechargeable batteries, battery packs and accumulators (refer to sections 2.1.3.2 and 2.1.3.3 in chapter 2),
  - activities related to the production of biogas by anaerobic digestion of bio-waste (refer to section 2.1.2.4 in chapter 2),
  - electricity generation from natural gas, corresponding to the portfolio of combined cycle gas turbine (CCGT) power plants (refer to section 2.1.3.1 of chapter 2).
- For the Refining & Chemicals segment, main Eligible Activities are as follows:
  - activities related the production of biofuel for transportation (refer to section 2.4.1.1 in chapter 2),
  - activities related to the manufacture of basic organic chemicals and the manufacture of basic plastic materials cover a significant portion of the Company's petrochemical activities. Some of these activities may constitute "transitional activities" within the meaning of the european taxonomy regulation, as long as they meet the technical screening criteria of the delegated regulation (EU) 2021/2139 of 4 June 2021, in particular in the fields of biopolymer production and mechanical or chemical recycling of plastics (refer to section 2.4.1.1 of chapter 2).
- For the Exploration & Production segment, main eligible activities are those related to carbon sinks: $CO_2$ capture and storage and the development of natural carbon sinks (refer to sections 2.2.2.2 and 2.2.2.3 in chapter 2).
- For the Marketing & Service segment, main Eligible Activities are those related to new energy mobility infrastructures: construction and operation of infrastructure enabling low-carbon road transport and public transport, such as electric charging stations and hydrogen fueling stations (refer to section 2.5.1 in chapter 2).

The Eligible Activities reported under the line Electricity and renewables include renewable energy activities and electricity generation from natural gas of the Integrated Gas, Renewables & Power segment, as well as construction and operation of electric charging stations of the Marketing & Service segment.

The Eligible Activities reported under the line Biofuels and chemicals include the production of biofuel for transportation, the manufacture of basic organic chemicals and the manufacture of basic plastic materials of the Refining & Chemicals segment.

The analysis of the texts has led TotalEnergies to consider that, among its activities, are notably not eligible under the taxonomy regulation:

- electricity marketing activities, if the electricity is not produced by the Company (refer to section 2.1.3.4 of chapter 2),
- the construction and operation of infrastructures for the distribution of energy from natural gas, such as NGV stations and marine natural gas supply infrastructures (refer to section 2.5.1 of chapter 2),
- activities related to the use of means of transportation (road, sea) if the vessels or vehicles are dedicated to the transport of fossil fuels (refer to section 2.4.2.2 in chapter 2).

## DEFINITION OF FINANCIAL INDICATORS AND METHODOLOGY

The proportion of Eligible Activities and the proportion of Aligned Activities in the Turnover, the CapEx and the OpEx (the "Ratios") are calculated by dividing respectively the Turnover, the CapEx and the OpEx associated with the Eligible Activities and Aligned Activities of the Company (the numerator) by the total Turnover, CapEx and OpEx of TotalEnergies (the denominator).

The financial indicators, on which the Ratios of the controlled scope are founded, are determined from the financial data used for the preparation of the consolidated financial statements of TotalEnergies SE, established in compliance with the IFRS international accounting standards.

- Turnover corresponds to Revenues from sales as presented in the consolidated statement of income (refer to section 8.2 of chapter 8), i.e. consolidated external sales excluding excise taxes.
- CapEx corresponds to the additions to tangible and intangible assets, *i.e.* to the cost of construction or acquisition of new properties, plants and equipments and intangible assets recognized in the consolidated balance sheet (refer to section 8.4 of chapter 8), including in connection with a business combination. These additions are considered before depreciation, amortisation and any re-measurements, including those resulting from revaluations and impairments, and excluding fair value changes. It includes rights of use under new lease agreements and it excludes acquisitions of shares in equity affiliates and non-consolidated companies, as well as loans granted to these companies. The reconciliation of CapEx with cash flow used in investing activities as presented in the consolidated statement of cash flow (refer to section 8.5 of chapter 8) is available in section 5.4.6.3.
- OpEx corresponds only to direct non-capitalized costs that relate to research and development, short-term lease, building renovation measures and maintenance and repair. These costs are included in the Other operating expenses in the consolidated statement of income (refer to section 8.2 of chapter 8).

The Ratios calculated using the proportional view are based on the Turnover and CapEx financial indicators but extend the scope of the contributing entities, for the numerator like the denominator, to the joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method up to the amount of the interest held by TotalEnergies. The scope of consolidation as of December 31, 2022, including the list of companies accounted for by the equity method, is available in note 18 of the appendix to the consolidated financial statements in chapter 8.

An internal procedure documents the methodology for determining Eligible Activities and Aligned Activities, the precise definition of financial indicators and all the criteria and assumptions used. Methodology and definitions may evolve depending on future changes in regulations and interpretations.

## 5.4.6.2 ALIGNMENT OF TotalEnergies' ACTIVITIEs

The tables below present the proportion of the Eligible Activities and the proportion of the Aligned Activities on the Turnover and CapEx indicators, on the scope of the entities controlled by TotalEnergies, as well as a proportional view, proposed by the delegated regulation of 6 July 2021, including the contribution of joint ventures and associates in which TotalEnergies SE has significant influence, accounted for by the equity method.

These data have been assessed on the basis of year 2022 with a reminder of the data published for the years 2021 and 2020.

**Summary of the ratios of Eligible Activities and Aligned Activities**

| | Eligible activities | | Aligned activities | |
|---|---|---|---|---|
| Controlled scope - 2022 | Turnover | CapEx | Turnover | CapEx |
| Renewables and electricity | 3.0% | 13.7% | 1.1% | 13.3% |
| *including electricity generation from natural gas* | *1.8%* | *0.3%* | *0.0%* | *0.0%* |
| Biofuels and chemicals | 4.4% | 3.1% | 0.1% | 0.6% |
| Other eligible activities | 0.1% | 0.6% | 0.1% | 0.6% |
| **TOTAL 2022** | **7.5%** | **17.4%** | **1.3%** | **14.5%** |
| ***TOTAL 2021*** | ***9.9%*** | ***13.4%*** | ***1.5%*** | ***10.1%*** |
| ***TOTAL 2020*** | ***9.4%*** | ***13.1%*** | ***2.1%*** | ***5.1%*** |

| | Eligible activities | | Aligned activities | |
|---|---|---|---|---|
| Proportional view - 2022 | Turnover | CapEx | Turnover | CapEx |
| Renewables and electricity | 3.2% | 29.8% | 1.4% | 29.5% |
| *including electricity generation from natural gas* | *1.6%* | *0.2%* | *0.0%* | *0.0%* |
| Biofuels and chemicals | 5.5% | 3.5% | 0.1% | 0.6% |
| Other eligible activities | 0.2% | 0,7% | 0.2% | 0.7% |
| **TOTAL 2022** | **8.9%** | **34.0%** | **1.7%** | **30.8%** |
| ***TOTAL 2021*** | ***11.2%*** | ***27.4%*** | ***1.9%*** | ***23.2%*** |
| ***TOTAL 2020*** | ***11.2%*** | ***16.5%*** | ***2.4%*** | ***9.2%*** |

According to this classification, defined by the Taxonomy, eligible or aligned CapEx represent over 30% of investments on proportional view in 2022, confirming the growth dynamic initiated since 2020.

### "SUBSTANTIAL CONTRIBUTION" CRITERION

With regard to the assessment of the regulatory criterion named "Substantial Contribution":

- the Eligible Activities related to renewables have a substantial contribution to the objective of climate change mitigation as soon as they qualify as eligible, except of the manufacture of rechargeable batteries, battery packs and accumulators, which complies with this criterion if they result in substantial greenhouse gases (GHG) emission reductions in transport, stationary and off-grid energy storage and other industrial applications,
- the electricity generation from natural gas complies with this criterion for plants, the GHG emissions of which are lower than 100 g $CO_{2e}$/kWh or in transient configurations, for plants whose permit is granted before 31 December 2030, if:
  - the GHG emissions of the activity are lower than 270 g $CO_{2e}$/kWh or the average annual GHG emissions over 20 years are lower than 550 kg $CO_{2e}$/kW,
  - a duly documented management commitment is taken for a switch to 100% renewable and/or low-carbon gas before end 2035,
  - the activity in question replaces a preexisting coal or liquid fuel activity, and
  - a comparative assessment will have demonstrated that no 100% renewable alternative was possible.
- the manufacture of biofuels for use in transports complies with that criterion if the process uses a biomass that is not food-and feed crops that complies with the sustainability criteria of the Renewable Energies Directive (RED) and that allows savings in GHG emissions due to the manufacturing of these biofuels of at least 65% compared to fossil fuels,
- the manufacture of basic organic chemicals complies with that criterion if (i) the GHG emissions (manufacture) by product are lower than a threshold, or (ii) those products are manufactured from renewable feedstock and the lifecycle GHG emissions, verified by a third party, are lower than the equivalent chemical manufactured from fossil fuel feedstock,
- the manufacture of plastic in primary form complies with that criterion if it is (i) fully manufactured by mechanical recycling of plastic waste or (ii) where mechanical recycling is not technically feasible or economically viable, fully manufactured by chemical recycling and the lifecycle GHG emissions of the manufactured plastic, verified by a third party, are lower than the lifecycle GHG emissions of the equivalent plastic in primary form manufactured from fossil fuel feedstock or (iii) derived wholly or partially from renewable feedstock if its lifecycle GHG emissions, verified by a third party, are lower than the lifecycle GHG emissions of the equivalent plastics in primary form manufactured from fossil fuel feedstock,
- the manufacture of biogas by anaerobic digestion of bio-waste complies with that criterion if the methane leakage and the traceability of the feedstock and digestates are under control and if the share of food-and feed crops is lower than 10%.

### "DO NO SIGNIFICANT HARM" CRITERION

With regard to the regulatory criterion named "Do no significant harm" any of the environmental objectives, TotalEnergies relies on the HSE division and the HSE departments within the Company's entities which seek to ensure that applicable local regulations, internal requirements of One MAESTRO reference framework and the Company's additional commitments are respected (refer to section 5.5.1) to analyze if its Eligible Activities comply with this criterion.

- For activities located in the European Union, compliance with European and national laws helps document compliance with technical screening criteria.
- For activities located outside the European Union, the analysis of compliance with the technical screening criteria of delegated regulation (EU) 2021/2139 of 4 June 2021 is based in particular on the following elements:
  - sustainable use and protection of water and marine resources: risks related to water quality and the avoidance of water stress are identified and covered through a water use and protection management plan,
  - pollution prevention and control regarding use and presence of chemicals: the activities do not lead to the manufacture, placing on the market or use of substances, on their own, in mixtures or in articles, listed or defined in European Regulations 2019/1021, 2017/852, 1005/2009, 2011/65 and 1907/2006,
  - protection and restoration of biodiversity and ecosystems: an environmental impact assessment or an appropriate screening is completed for each activity,
  - analysis of technical screening criteria specific to certain Eligible Activities.

More specifically concerning the analysis of the criteria related to the environmental objective "Climate change adaptation", TotalEnergies relies on its process of analyzing the physical risks associated with climate change (refer to section 5.4.3).

### "MINIMUM SAFEGUARDS" CRITERION

With regard to the regulatory criterion named "Minimum Safeguards", various TotalEnergies policies cover these issues, through the adoption of a set of norms, principles, guidelines and best practices applicable to its operations, the establishment of specialized teams and networks of correspondents responsible for particular attention to these subjects, as well as procedures, reports and audits aimed at ensuring their daily application. Thus, the TotalEnergies Code of Conduct includes respect for the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

The Company refers to those standards in the analysis of the compliance of its Eligible Activities. For a more detailed presentation of TotalEnergies' policies and procedures in terms of respect for human rights, refer to sections 3.3.3 and 3.6 of chapter 3 and section 5.7, respect for competition law, refer to sections 3.3.3 and 3.6 of chapter 3, fighting corruption refer to sections 3.3.3 and 3.6 of chapter 3 and section 5.8.1 and fighting tax evasion refer to section 5.8.2.

In the context of activities carried out by joint ventures and associates in which TotalEnergies has significant influence, accounted for by the equity method, the Company uses its leverage with its business partners to apply similar standards, as explained in these same points.

### CONTEXTUAL INFORMATION

CapEx associated with Aligned Activities on the scope of the entities controlled by TotalEnergies amount to $2,652 million. They include:

- $1,315 million relating to additions to tangible assets, $1,188 million relating to additions to intangible assets and $149 million relating to new leases,
- $2,353 million related to organic investments and $299 million related to assets additions in connection with a business combination.

CapEx associated with Aligned Activities are either related to assets or processes that are associated with Aligned Activities, or related to *CapEx Plans*, within the meaning of the regulation, or related to purchases of products from Aligned Activities or to individual measures, also among the Aligned Activities, enabling the target activities to become low-carbon or to lead to greenhouse gas emissions reductions.

CapEx related to *CapEx Plans* are part of a plan to expand Aligned Activities or allow Taxonomy Eligible Activities to align with it. The Company's *CapEx Plans* correspond, for example, to the project to transform the Grandpuits refinery into a zero-oil platform focusing on new sources of energy and low-carbon activities, which is expected to represent a total investment of more than €500 million by 2025. (refer to section 2.4.1.1 of chapter 2).

CapEx related to purchases of products from Aligned Activities or to individual measures mainly correspond to the solar program of TotalEnergies sites (refer to section 2.5.1 of chapter 2).

In 2023, TotalEnergies expects net investments of $16-18 billion, including $5 billion dedicated to low-carbon energies. Through 2030, investments in low-carbon energy and carbon footprint reduction programs should jointly account for around 33% of net investments, between $14 billion and $18 billion per year. They include investments in electricity and renewables, low-carbon molecules (biofuels, biogas, plastic recycling, biopolymers, synthetic fuels and hydrogen) and the reduction of the Company's carbon footprint (refer to section 1.6 of chapter 1).

## 5.4.6.3 KEY PERFORMANCE INDICATORS WITHIN THE TAXONOMY

**Proportion of Turnover from products or services associated with Taxonomy-aligned economic activities**

**Exercice 2022**

| Activity | Code | Turnover (M$) | Turnover % | Substantial contribution: Climate Change – Mitigation | Substantial contribution: Climate Change – Adaptation | Substantial contribution: Water protect. | Substantial contribution: Circular eco. | Substantial contribution: Pollution | Substantial contribution: Biodiversity | DNSH - Does Not Significantly Harm: Climate Change – Mitigation | DNSH: Climate Change – Adaptation | DNSH: Water protect. | DNSH: Circular eco. | DNSH: Pollution | DNSH: Biodiversity | Minimum Safeguards | Turnover - Year-End 2022 % | Turnover - Year-End 2021 % | Enabling (E) activity | Transitional (T) activity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A. Taxonomy-eligible activities** | | | | | | | | | | | | | | | | | | | | |
| **A.1. Environmentally sustainable activities (taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Manufacture of low carbon technologies for transport | 3.3 | 370 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | E | |
| Manufacture of batteries | 3.4 | 833 | 0.3% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.3% | | E | |
| Manufacture of energy efficiency equipment for buildings | 3.5 | 29 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Manufacture of plastics in primary form | 3.17 | 47 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | T |
| Electricity generation using solar photovoltaic technology | 4.1 | 45 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Electricity generation from wind power | 4.3 | 47 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Electricity generation from hydropower | 4.5 | 2 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Storage of electricity | 4.10 | 15 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Manufacture of biogas/biofuels for use in transport | 4.13 | 179 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | |
| District heating/cooling distribution | 4.15 | 73 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Production of heat/cool using waste heat | 4.25 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Anaerobic digestion of bio-waste | 5.7 | 32 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Landfill gas capture and utilization | 5.10 | 8 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Infrast. enabling low-carbon road transport and public transport | 6.15 | 54 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Installation, maintenance and repair of charging stations for electric vehicles | 7.4 | 28 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Installation, maintenance and repair of renewable energy tech. | 7.6 | 1,398 | 0.5% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.5% | | E | |
| Professional services related to energy performance of buildings | 9.3 | 305 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | E | |
| **Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1.)** | | **3,466** | **1.3%** | | | | | | | | | | | | | | | | | |
| **A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Manufacture of batteries | 3.4 | 235 | 0.1% | | | | | | | | | | | | | | | | | |
| Manufacture of organic basic chemicals | 3.14 | 3,871 | 1.5% | | | | | | | | | | | | | | | | | |
| Manufacture of plastics in primary form | 3.17 | 7,384 | 2.8% | | | | | | | | | | | | | | | | | |
| Transmission and distribution of electricity | 4.9 | 2 | 0.0% | | | | | | | | | | | | | | | | | |
| Manufacture of biogas/biofuels for use in transport | 4.13 | 144 | 0.1% | | | | | | | | | | | | | | | | | |
| District heating/cooling distribution | 4.15 | 12 | 0.0% | | | | | | | | | | | | | | | | | |
| Electricity generation from fossil gaseous fuels | 4.29 | 4,693 | 1.8% | | | | | | | | | | | | | | | | | |
| High-efficiency co- generation of heat/cool and power from fossil gaseous fuels | 4.30 | 44 | 0.0% | | | | | | | | | | | | | | | | | |
| Construction, extension and operation of water collection, treatment and supply systems | 5.1 | 5 | 0.0% | | | | | | | | | | | | | | | | | |
| Construction, extension and operation of waste water collection and treatment | 5.3 | 6 | 0.0% | | | | | | | | | | | | | | | | | |
| Collection and transport of non-hazardous waste in source segregated fractions | 5.5 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| Infrastructure for rail transport | 6.14 | 2 | 0.0% | | | | | | | | | | | | | | | | | |
| **Tunover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)** | | **16,399** | **6.2%** | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES TAXONOMY-ELIGIBLE (A.1.+A.2.)** | | **19,865** | **7.5%** | | | | | | | | | | | | | | | | | |
| **B. Taxonomy-Non-Eligible activities** | | | | | | | | | | | | | | | | | | | | |
| Turnover of Taxonomy-non-eligible activities (B) | | 243,445 | 92.5% | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES (A+B)** | | **263,310** | **100%** | | | | | | | | | | | | | | | | | |

## Proportion of CapEx from products or services associated with Taxonomy-aligned economic activities

### Exercice 2022

| Activity | Code | Capex (M€) | Capex % | Substantial contribution: Climate Change – Mitigation | Substantial contribution: Climate Change – Adaptation | Substantial contribution: Water protect. | Substantial contribution: Circular eco. | Substantial contribution: Pollution | Substantial contribution: Biodiversity | DNSH - Does Not Significantly Harm: Climate Change – Mitigation | DNSH: Climate Change – Adaptation | DNSH: Water protect. | DNSH: Circular eco. | DNSH: Pollution | DNSH: Biodiversity | Minimum Safeguards | CapEx - Year-End 2022 % | CapEx - Year-End 2021 % | Enabling (E) activity | Transitional (T) activity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A. Taxonomy-eligible activities** | | | | | | | | | | | | | | | | | | | | |
| **A.1. Environmentally sustainable activities (taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Afforestation | 1.1 | 4 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Manufacture of low carbon technologies for transport | 3.3 | 13 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | E | |
| Manufacture of batteries | 3.4 | 36 | 0.2% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.2% | | E | |
| Manufacture of energy efficiency equipment for buildings | 3.5 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Manufacture of organic basic chemicals | 3.14 | 37 | 0.2% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.2% | | | T |
| Manufacture of plastics in primary form | 3.17 | 21 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | T |
| Electricity generation using solar photovoltaic technology | 4.1 | 1,060 | 5.8% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 5.8% | | | |
| Electricity generation from wind power | 4.3 | 938 | 5.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 5.1% | | | |
| Storage of electricity | 4.10 | 85 | 0.5% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.5% | | E | |
| Manufacture of biogas/biofuels for use in transport | 4.13 | 54 | 0.3% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.3% | | | |
| Production of heat/cool using waste heat | 4.25 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Anaerobic digestion of bio-waste | 5.7 | 18 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | |
| Underground permanent geological storage of CO2 | 5.12 | 20 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | |
| Infrast. enabling low-carbon road transport and public transport | 6.15 | 167 | 0.9% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.9% | | E | |
| Construction of new buildings | 7.1 | 3 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Installation, maintenance and repair of charging stations for electric vehicles | 7.4 | 3 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Installation, maintenance and repair of renewable energy tech. | 7.6 | 132 | 0.7% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.7% | | E | |
| Acquisition and ownership of buildings | 7.7 | 50 | 0.3% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.3% | | | |
| Professional services related to energy performance of buildings | 9.3 | 9 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| **CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1.)** | | **2,652** | **14.5%** | | | | | | | | | | | | | | | | | |
| **A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Manufacture of batteries | 3.4 | 10 | 0.1% | | | | | | | | | | | | | | | | | |
| Manufacture of organic basic chemicals | 3.14 | 324 | 1.8% | | | | | | | | | | | | | | | | | |
| Manufacture of plastics in primary form | 3.17 | 126 | 0.7% | | | | | | | | | | | | | | | | | |
| Transmission and distribution of electricity | 4.9 | 3 | 0.0% | | | | | | | | | | | | | | | | | |
| Electricity generation from fossil gaseous fuels | 4.29 | 47 | 0.3% | | | | | | | | | | | | | | | | | |
| High-efficiency co- generation of heat/cool and power from fossil gaseous fuels | 4.30 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| Construction, extension and operation of water collection, treatment and supply systems | 5.1 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| Data processing, hosting and related activities | 8.1 | 4 | 0.0% | | | | | | | | | | | | | | | | | |
| **CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)** | | **516** | **2.8%** | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES TAXONOMY-ELIGIBLE (A.1.+A.2.)** | | **3,168** | **17.4%** | | | | | | | | | | | | | | | | | |
| **B. Taxonomy-Non-Eligible activities** | | | | | | | | | | | | | | | | | | | | |
| CapEx of Taxonomy-non-eligible activities (B) | | 15,089 | 82.6% | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES (A+B)** | | **18,257** | **100%** | | | | | | | | | | | | | | | | | |

## Proportion of OpEx from products or services associated with Taxonomy-aligned economic activities

### Exercice 2022

| Activity | Code | OpEx (M$) | OpEx % | Substantial contribution: Climate Change – Mitigation | Substantial contribution: Climate Change – Adaptation | Substantial contribution: Water protect. | Substantial contribution: Circular eco. | Substantial contribution: Pollution | Substantial contribution: Biodiversity | DNSH - Does Not Significantly Harm: Climate Change – Mitigation | DNSH: Climate Change – Adaptation | DNSH: Water protect. | DNSH: Circular eco. | DNSH: Pollution | DNSH: Biodiversity | Minimum Safeguards | OpEx - Year-End 2022 % | OpEx - Year-End 2021 % | Enabling (E) activity | Transitional (T) activity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **A. Taxonomy-eligible activities** | | | | | | | | | | | | | | | | | | | | |
| **A.1. Environmentally sustainable activities (taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Manufacture of low carbon technologies for transport | 3.3 | 24 | 0.6% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.6% | | E | |
| Manufacture of batteries | 3.4 | 75 | 1.9% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 1.9% | | E | |
| Manufacture of energy efficiency equipment for buildings | 3.5 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | E | |
| Manufacture of hydrogen (and hydrogen-based synthetic fuels) | 3.10 | 9 | 0.2% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.2% | | E | |
| Manufacture of plastics in primary form | 3.17 | 35 | 0.9% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.9% | | | T |
| Electricity generation using solar photovoltaic technology | 4.1 | 17 | 0.4% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.4% | | | |
| Electricity generation from wind power | 4.3 | 26 | 0.7% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.7% | | | |
| Storage of electricity | 4.10 | 35 | 0.9% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.9% | | E | |
| Manufacture of biogas/biofuels for use in transport | 4.13 | 32 | 0.8% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.8% | | | |
| District heating/cooling distribution | 4.15 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Production of heat/cool using waste heat | 4.25 | 1 | 0.0% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.0% | | | |
| Anaerobic digestion of bio-waste | 5.7 | 2 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | |
| Landfill gas capture and utilization | 5.10 | 2 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | | |
| Underground permanent geological storage of CO2 | 5.12 | 35 | 0.9% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.9% | | | |
| Infrast. enabling low-carbon road transport and public transport | 6.15 | 3 | 0.1% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.1% | | E | |
| Installation, maintenance and repair of renewable energy tech. | 7.6 | 24 | 0.6% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.6% | | E | |
| Professional services related to energy performance of buildings | 9.3 | 11 | 0.3% | 100% | 0% | n.a | n.a | n.a | n.a | | n.a | YES | YES | YES | YES | YES | 0.3% | | E | |
| **OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1.)** | | **333** | **8.6%** | | | | | | | | | | | | | | | | | |
| **A.2. Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)** | | | | | | | | | | | | | | | | | | | | |
| Manufacture of batteries | 3.4 | 21 | 0.5% | | | | | | | | | | | | | | | | | |
| Manufacture of organic basic chemicals | 3.14 | 110 | 2.8% | | | | | | | | | | | | | | | | | |
| Manufacture of plastics in primary form | 3.17 | 116 | 3.0% | | | | | | | | | | | | | | | | | |
| Transmission and distribution of electricity | 4.29 | 27 | 0.7% | | | | | | | | | | | | | | | | | |
| High-efficiency co- generation of heat/cool and power from fossil gaseous fuels | 4.30 | 2 | 0.1% | | | | | | | | | | | | | | | | | |
| Construction, extension and operation of water collection, treatment and supply systems | 5.1 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| Construction, extension and operation of waste water collection and treatment | 5.3 | 2 | 0.1% | | | | | | | | | | | | | | | | | |
| Collection and transport of non-hazardous waste in source segregated fractions | 5.5 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| Infrastructure for rail transport | 6.14 | 1 | 0.0% | | | | | | | | | | | | | | | | | |
| **Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2.)** | | **281** | **7.2%** | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES TAXONOMY-ELIGIBLE (A.1.+A.2.)** | | **614** | **15.8%** | | | | | | | | | | | | | | | | | |
| **B. Taxonomy-Non-Eligible activities** | | | | | | | | | | | | | | | | | | | | |
| OpEx of Taxonomy-non-eligible activities (B) | | 3,267 | 84.2% | | | | | | | | | | | | | | | | | |
| **TOTAL ACTIVITIES (A+B)** | | **3,881** | **100%** | | | | | | | | | | | | | | | | | |

## KEY PERFORMANCE INDICATORS ON THE ACTIVITIES RELATED TO NATURAL GAS AND NUCLEAR ENERGY

The tables below are required by supplementing delegated regulation (EU) 2022/1214 of 9 March 2022 on the activities related to natural gas and nuclear energy. The scope of Eligible Activities related to natural gas is limited and therefore does not acknowledge the role of natural gas as an important technology in reducing greenhouse gas emissions. For information and in addition to European regulations, the share of Eligible Activities and non-eligible activities related to natural gas, on scope of the entities controlled by TotalEnergies, stands in 2022 at 15% of Turnover, 14 % of CapEx and 20% of OpEx.

Exercice 2022

| Line | Nuclear energy related activities | |
|---|---|---|
| 1. | The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle. | No |
| 2. | The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies | No |
| 3. | The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades. | No |
| | **Fossil gas related activities** | |
| 4. | The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels. | Yes |
| 5. | The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels. | Yes |
| 6. | The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels. | No |

**Taxonomy-aligned economic activities (denominator)**

| Financial year 2022 | | Proportion - Turnover | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of Turnover** | **3,466** | **1.3%** | **3,466** | **1.3%** | **0** | **0%** |
| **8** | **TOTAL TURNOVER** | **263,310** | **100%** | **263,310** | **100%** | **263,310** | **100%** |

Taxonomy-aligned economic activities (denominator)

| Financial year 2022 | | Proportion - CapEx | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of CapEx** | **2,652** | **14.5%** | **2,652** | **14.5%** | **0** | **0%** |
| **8** | **TOTAL CAPEX** | **18,257** | **100%** | **18,257** | **100%** | **18,257** | **100%** |

Taxonomy-aligned economic activities (numerator)

| Financial year 2022 | | Proportion - OpEx | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 on the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above on the denominator of OpEx** | **333** | **8.6%** | **333** | **8.6%** | **0** | **0%** |
| **8** | **TOTAL OPEX** | **3,881** | **100%** | **3,881** | **100%** | **3 881** | **100%** |

**Taxonomy-aligned economic activities (numerator)**

| Financial year 2022 | | Proportion - Turnover | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of Turnover** | **3,466** | **100%** | **3,466** | **100%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE NUMERATOR OF TURNOVER** | **3,466** | **100%** | **3,466** | **100%** | **0** | **0%** |

**Taxonomy-aligned economic activities (numerator)**

| Financial year 2022 | | Proportion - CapEx | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of CapEx** | **2,652** | **100%** | **2,652** | **100%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE NUMERATOR OF CAPEX** | **2,652** | **100%** | **2,652** | **100%** | **0** | **0%** |

### Taxonomy-aligned economic activities (numerator)

| Financial year 2022 | | Proportion - Opex | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | 0 | 0% | 0 | 0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of OpEx** | **333** | **100%** | **333** | **100%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE NUMERATOR OF OPEX** | **333** | **100%** | **333** | **100%** | **0** | **0%** |

### Taxonomy-eligible but not taxonomy-aligned economic activities

| Financial year 2022 | | Proportion - Turnover | | | | | |
|---|---|---|---|---|---|---|---|
| | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | 4,693 | 1,8% | 4,693 | 1,8% | C | 0% |
| 5 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | 44 | 0,0% | 44 | 0,0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 abo ve in the denominator of Turnover** | **11,662** | **4.4%** | **11,662** | **4.4%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-ELIGIBLE BUT NOT TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE DENOMINATOR OF TURNOVER** | **16,399** | **6.2%** | **16,399** | **6.2%** | **0** | **0%** |

**Taxonomy-eligible but not taxonomy-aligned economic activities**

| | | Proportion - CapEx | | | | | |
|---|---|---|---|---|---|---|---|
| Financial year 2022 | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | 47 | 0.7% | 47 | 0.7% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | 1 | 0.0% | 1 | 0.0% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 abo ve in the denominator of CapEx** | **468** | **2.6%** | **468** | **2.6%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-ELIGIBLE BUT NOT TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE DENOMINATOR OF CAPEX** | **516** | **2.8%** | **516** | **2.8%** | **0** | **0%** |

**Taxonomy-eligible but not taxonomy-aligned economic activities**

| | | Proportion - Opex | | | | | |
|---|---|---|---|---|---|---|---|
| Financial year 2022 | | CCM + CCA | | Climate change mitigation | | Climate change adaptation | |
| Line | Economic activities | Amount M$ | % | Amount M$ | % | Amount M$ | % |
| 1 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 2 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 3 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 4 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | 27 | 0.7% | 27 | 0.7% | 0 | 0% |
| 5 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | 2 | 0.1% | 2 | 0.1% | 0 | 0% |
| 6 | Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **7** | **Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 abo ve in the denominator of OpEx** | **252** | **6.5%** | **252** | **6.5%** | **0** | **0%** |
| **8** | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY ELIGIBLE BUT NOT TAXONOMY-ALIGNED ECONOMIC ACTIVITIES IN THE DENOMINATOR OF OPEX** | **281** | **7.2%** | **281** | **7.2%** | **0** | **0%** |

TotalEnergies

### Taxonomy non-eligible economic activities

| Financial year 2022 | | Turnover | |
|---|---|---|---|
| Line | Economic activities | Amount M$ | % |
| 1 | Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. |
| 2 | Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. |
| 3 | Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. |
| 4 | Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | 0 | 0% |
| 5 | Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | 0 | 0% |
| 6 | Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of Turnover | n.a. | n.a. |
| 7 | **Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of Turnover** | **243,445** | **92.5%** |
| 8 | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-NON-ELIGIBLE ECONOMIC ACTIVITIES IN THE DENOMINATOR OF TURNOVER** | **243,445** | **92.5%** |

### Taxonomy non-eligible economic activities

| Financial year 2022 | | CapEx | |
|---|---|---|---|
| Line | Economic activities | Amount M$ | % |
| 1 | Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. |
| 2 | Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. |
| 3 | Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. |
| 4 | Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | 0 | 0% |
| 5 | Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | 0 | 0% |
| 6 | Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of CapEx | n.a. | n.a. |
| 7 | **Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of CapEx** | **15,089** | **82.6%** |
| 8 | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-NON-ELIGIBLE ECONOMIC ACTIVITIES IN THE DENOMINATOR OF CAPEX** | **15,089** | **82.6%** |

**Taxonomy non-eligible economic activities**

| Financial year 2022 | | OpEx | |
|---|---|---|---|
| Line | Economic activities | Amount M$ | % |
| 1 | Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. |
| 2 | Amount and proportion of economic activity referred to in row 2 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. |
| 3 | Amount and proportion of economic activity referred to in row 3 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. |
| 4 | Amount and proportion of economic activity referred to in row 4 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | 0 | 0% |
| 5 | Amount and proportion of economic activity referred to in row 5 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | 0 | 0% |
| 6 | Amount and proportion of economic activity referred to in row 6 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of OpEx | n.a. | n.a. |
| 7 | **Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of OpEx** | **3,267** | **84.2%** |
| 8 | **TOTAL AMOUNT AND PROPORTION OF TAXONOMY-NON-ELIGIBLE ECONOMIC ACTIVITIES IN THE DENOMINATOR OF OPEX** | **3,267** | **84.2%** |

### STATEMENT OF CAPEX RECONCILIATION

| In millions of dollars | 2022 |
|---|---|
| | TotalEnergies |
| **Net investissements (a)** | **16,303** |
| Other transactions with non-controlling interests (b) | 50 |
| Organic loan repayment from equity affiliates (c) | (1,630) |
| Change in debt from renewable projects financing (d) | 589 |
| Capex linked to capitalized leasing contracts (e) | 177 |
| Expenditures related to carbon credits (f) | 19 |
| **Cash flow used in investing activities (a + b + c + d - e - f)** | **15,116** |
| Divestments | 4,686 |
| Investments in equity affiliates and other securities | (3,042) |
| Increase in non-current loans | (976) |
| New leasing contracts | 2,155 |
| Adjustment of controlled entities acquisition | 318 |
| **CAPEX AS PER TAXONOMY - CONTROLLED PERIMETER** | **18,257** |
| Share of equity affiliates CapEx | 6,593 |
| **CAPEX AS PER TAXONOMY - PROPORTIONAL VIEW** | **24,850** |

# 5.5 Environmental challenges

The Company's activities incur risks for the environment, for which TotalEnergies has developed a structured management policy.

In this context, the Company has identified its main environmental risks:

- risk of accidental pollution,
- environmental risks that would arise in the event of a liquid, gas or solid discharge or unsustainable use of natural resources,
- risk of damage to biodiversity and ecosystems during projects and operations, especially those located in sensitive natural environments,
- environmental risks associated with the production of final waste.

The risks and challenges relating to the environment are identified as part of a dynamic process that draws on the Company's expertise and lessons learned, which are incorporated in the HSE reference framework known as One MAESTRO (Management and Expectations Standards Toward Robust Operations).

To address these risks, TotalEnergies relies on the HSE division, which forms part of the Strategy & Sustainability division, whose President is a member of the Executive Committee.

## 5.5.1 General policy and environmental targets

In accordance with its Health, Safety, Environment & Quality charter, TotalEnergies considers respect for the environment and nature as one of its priorities. All employees, at every level, must do their utmost to protect the environment as they go about their work. TotalEnergies strives to control its energy consumption, its emissions in natural environments (water, air, soil), its residual waste production, its use of natural resources and its impact on biodiversity. In line with its principle of actions, TotalEnergies takes on this topic, an approach based on transparency and dialogue when communicating with its stakeholders and third parties.

With this aim, the HSE division manages in an integrated manner the environmental, safety, health and societal challenges related to the Company's operations. It coordinates the implementation of the Company's Health, Safety, Environment and Quality Charter by defining and monitoring the implementation of the One MAESTRO internal reference framework. This reference framework and the corresponding audits are described in point 5.3 of this chapter. The HSE division and the HSE departments within the Company's entities seek to ensure that both applicable local regulations and internal requirements of One MAESTRO and the Company's additional commitments are respected. The Company's steering bodies, led by the HSE division, are tasked with:

- monitoring TotalEnergies' environmental performances, which are reviewed annually by the Company, for which multi-annual improvement targets are set,
- handling, in conjunction with the business segments, the various environment-related subjects of which they are in charge,
- promoting the internal standards to be applied by the Company's operational entities.

As a general requirement, under the One MAESTRO reference framework, environmental management systems of sites operated by the Company that are important for the environment[1] must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 80 sites were compliant in 2022. In addition to this requirement, at year-end 2022, a total of 284 sites operated by the Company were ISO14001 certified, 13 of them newly so. Internal requirements also stipulate that all projects submitted to the Company's Risk Committee must be assessed and reviewed for risk and potential impact, particularly environmental, before the final investment decision is made.

The One MAESTRO reference framework also includes specific requirements covering the Company's various environmental risks (refer to points 5.5.2 to 5.5.5 of this chapter). In January 2022, the Company set itself higher environmental progress targets for 2030.

(1) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment, operated by the Company.

| Our environmental targets[a] | Facts |
|---|---|
| **Environment Management Systems** | |
| – have the environment management systems of the sites important for the environment certified according to the ISO14001 standard | – 100% of the sites important for the environment certified according to the ISO14001 standard in 2022 |
| **Air** | |
| – reduce emissions of sulfur dioxide ($SO_2$) into the air by 75% between 2015 and 2030, a target that amounts to not exceeding 15 kt emitted in 2030 (new target) | – a 69% reduction in atmospheric sulfur dioxide ($SO_2$) emissions, excluding short-term economic effects between 2015 and 2022 |
| **Water** | |
| – reduce the freshwater withdrawal in water stress area by 20% between 2021 and 2030 (new target) | – stabilization of water withdrawals in water stress area and launch of major projects for resource preservation (target 9 $Mm^3$/y saved) |
| – limit the hydrocarbon content of continuous aqueous discharges to less than 30 mg/l for offshore sites | – 93% of the Company's oil sites met the quality target for offshore discharges in 2022 |
| – limit the hydrocarbon content of continuous aqueous discharges to less than 1 mg/l for land and onshore sites by 2030 (new target) | – 73% of the Company's oil sites met the new quality target for onshore discharges in 2022 |
| **Waste** | |
| – reuse more than 70% of the waste produced by sites operated by the Company's subsidiaries by 2030 (new target) | – 61% of waste from sites operated by Company's subsidiaries, excluding digestate from biogas units, recovered in 2022 |
| **Biodiversity** | |
| – implement a net zero deforestation policy in new projects located in new sites starting in 2022 onward | – no deforestation action took place on new projects on new sites, approved in 2022 |
| – implement the biodiversity ambition in the 4 areas presented in point 5.5.4 of this chapter | – no oil and gas exploration or production activity in the area of natural sites listed on the UNESCO World Heritage List |
| | – no exploration activity in oil fields under sea ice in the Arctic |
| | – seven biodiversity action plans[1] carried out or in preparation in 2022 for projects located in protected areas[2] or aligned with International Finance Corporation PS6 standard |
| | – 43 biodiversity audits carried out on sites important for the environment[3] in 2022 |
| | – World Environment Day was celebrated in 2022 on the theme of biodiversity, thereby raising awareness among the Company's employees |
| | – 18 citations in scientific publications of biodiversity data sets produced by the Company and shared in the database of the Global Biodiversity Information Facility (GBIF) |

(a) For targets relating to climate, refer to point 5.4 of this chapter.

TotalEnergies seeks to ensure that all employees share its requirements regarding environmental care and nature protection. Employees receive training in the required skills (refer to point 5.3.2 of this chapter).

TotalEnergies also raises employee awareness through internal communication campaigns (e.g., in-house magazines, intranet, posters, etc).

(1) Following IPIECA's Guide to developing biodiversity action plans for the oil and gas sector.
(2) IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas.
(3) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants in the Integrated Gas, Renewables and Power segment, operated by the Company.

## 5.5.2 Preventing risks of accidental pollution

To prevent accidental risks and, in particular, major spills that could reach the environment, TotalEnergies implements appropriate risk management policies. Point 5.3.1 of this chapter describes the management measures covering the design and construction of facilities and any changes to existing facilities, as well as operations. It also describes the measures taken to control the integrity of facilities over time.

For the transport of oil and gas by sea and river, TotalEnergies maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards. The vetting of vessels and barges is based in particular on the regulations, best practices and recommendations of the OCIMF(1) and, in Europe, on those of the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Company entity. The average age of the TotalEnergies time-chartered oil tanker fleet is approximately seven years.

The Company's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TotalEnergies encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to ensure continuous improvement in the safety of their operations. Since October 2020, the One MAESTRO reference framework has required training on SSSCL (Ship Shore Safety Check List) and cargo transfer operations. At year-end 2022, 100% of the subsidiaries operating terminals had staff who had already undergone this training.

In order to manage a major accidental spill efficiently, TotalEnergies has implemented a global crisis management system that is described in point 5.3.1 of this chapter.

For the sites operated by the Company exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Company recommendations. The TotalEnergies companies can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills. Thus, in 2022, TotalEnergies contributed to a large-scale European exercise "DOMINO", organized by the French authorities and involving various civil security organizations from several countries as well as different industrial sites (35,000 people mobilized). La Mède site simulated a vegetable oil spill scenario and mobilized various levels of response:

- on site and with the Crisis Management Unit with the support of the FOST and the support of the Marseille firemen,
- at the Company's headquarters with the Refining & Chemicals segment Crisis Support Unit and the support of the in-house pollution control expertise unit.

For the oil and gas exploration and production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air have been positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TotalEnergies' operations worldwide. This equipment was developed by a group of nine oil companies, including TotalEnergies, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Furthermore, since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary. In 2022, a preparation and pre-mobilization exercise to the quay (ready to be loaded on a ship) was carried out by TotalEnergies with the aim of continuous improvement of the procedures for mobilizing the means of response in the event of a well incident.

TotalEnergies has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, the equipment has been installed in Angola and the Republic of the Congo, covering the entire Gulf of Guinea region. The equipment was successfully deployed in exercise and live conditions in March 2019 off Nigeria.

| Oil spill preparedness | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water | 113 | 119 | 119 |
| Proportion of those sites with an operational oil spill contingency plan | 100% | 100% | 100% |
| Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities | 92% | 97% | 88% |

In accordance with industry best practices, TotalEnergies monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed on a monthly basis and annual statistics are sent to the Performance Management Committee of the Company. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible.

(1) Oil Companies International Marine Forum (OCIMF): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (Barge Inspection Questionnaire – BIQ).

| Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of spills | 49 | 65 | 50 |
| Total volume of spills *(thousands of m³)* | 0.1 | 2.0 | 1.0 |
| Total volume recovered *(thousands of m³)* | 0.1 | 1.7 | – |

In 2022, no major spills occurred at the Company's operations.

## 5.5.3 Limiting the environmental footprint of the Company activities

TotalEnergies implements a policy of avoiding, reducing and, where necessary, offsetting the footprint of its operations on the environment and on nature.

### PROTECTION OF ENVIRONMENTS

#### Air and water protection

The Company's operations generate emissions into the atmosphere from combustion plants and the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, TotalEnergies has drawn up rules and guidelines that the Company's subsidiaries can use to limit the quantities discharged. TotalEnergies has set itself targets for reducing sulfur dioxide ($SO_2$) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites are equipped with reduction systems that include organizational measures (managing sulfur content of fuels, improving the management of combustion processes, etc.) and specific technical measures depending on the sites (wastewater treatment plants, use of low-$NO_X$ burners and electrostatic scrubbers, etc.). To date, all refineries wholly owned by the Company have this type of system.

For new facilities developed by the Company, the internal rules require impact assessments to be carried out and, if necessary, actions must be taken to limit the impact of these emissions.

In 2015, $SO_2$ emissions reached 59 kt. TotalEnergies has set itself the target of reducing its emissions by 75% in 2030 (compared to 2015), which entails not exceeding 15 kt.

| Atmospheric chronic emissions | 2022 | 2021 | 2020 |
|---|---|---|---|
| $SO_2$ emissions *(in kt)* | 13 | 16 | 34 |
| $NO_X$ emissions *(in kt)* | 60 | 59 | 64 |
| NMVOC emissions[(a)] *(in kt)* | 48 | 58 | 69 |

(a) Non-methane volatile organic compounds.

$SO_2$ emissions that are likely to cause acid rain are regularly checked and reduced. In 2022, $SO_2$ emissions decreased significantly due to the decline in refinery activity (shutdowns, strikes) and perimeter effects. Without conjunctural effects, those emissions would have reached 18 kt in 2022 compared to 21 kt in 2021.

$NO_X$ emissions mainly concern the hydrocarbon exploration and production activities. They are mostly located offshore, far from the coast.

In January 2022, TotalEnergies set a new target for the quality of onshore discharge water to be achieved before 2030. Compared to the previous objective, it divides by 15 the maximum hydrocarbon content expected for these discharges. To date, 100% of the onshore sites comply with the previous objective of 15 mg/l and 73% with the new objective of 1 mg/l. Studies have been launched to improve the discharges from sites that are still not in compliance.

| Discharged water quality | 2022 | 2021 | 2020 |
|---|---|---|---|
| Hydrocarbon content of offshore continuous water discharges *(in mg/l)* | 12.9 | 13.7 | 12.8 |
| % of sites that meet the target for the quality of offshore discharges *(30 mg/l)* | 93% | 92% | 100%[(a)] |
| Hydrocarbon content of onshore continuous water discharges *(in mg/l)* | 1.8 | 2.6 | 1.9 |
| % of sites that meet the target for the quality of onshore discharges of: | | | |
| – goal 2010-2020: 15 mg/l | 100% | 100% | 100% |
| – goal 2030: 1 mg/l | 73% | 80% | – |

(a) Alwynn and Gryphon sites (United Kingdom) excluded, as their produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration.

#### Soil protection

The risks of soil pollution related to TotalEnergies' operations come mainly from accidental spills (refer to point 5.5.2 of this chapter) and waste storage (refer to point 5.5.5 of this chapter). TotalEnergies has drawn up a guide that the subsidiaries can use to prevent and contain this pollution. The recommended approach is based on four pillars:

- preventing leaks, by implementing, in the majority of sites, industry best practices in engineering, operations and transport,
- carrying out maintenance at appropriate frequency to minimize the risk of leaks,
- overall monitoring of the environment to identify any soil and groundwater pollution,
- managing any pollution from previous activities by means of containment and reduction or elimination operations.

In addition, a Company rule defines the following minimum requirements:

- systematic identification of each site's environmental and health impacts related to possible soil and groundwater contamination,
- assessment of soil and groundwater contamination based on various factors (extent of pollution inside or outside the site's boundaries, nature and concentrations of pollutants, presence of a vector that could allow the pollution to migrate, use of the land and groundwater in and around the site),
- management of health or environmental impacts identified based on the use of the site.

Lastly, decommissioned facilities operated by the Company (*i.e.*, chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units, etc.) impact the landscape and may, despite all the precautions taken, be sources of chronic or accidental pollution. In addition to the appropriate management of waste produced by the dismantling and securing of sites, TotalEnergies has created a soil and groundwater depollution policy based on the assessment and management of the risks that such pollution may incur. For the sites at the end of their activity, the management of pollution is determined in accordance with regulatory obligations with an objective of continuing to control the use of the sites while favoring the possibility of redeveloping Company activities (solar, reforestation, etc.) and protecting biodiversity (priority 3 of the biodiversity ambition presented in point 5.5.4 of this chapter). Specialized entities of the Company are supervising the sites' remediation operations. At year-end 2022, 155 industrial sites that were no longer in operation (excluding service stations) were in the process of remediation or under monitoring.

The Company's provisions for the protection of the environment and site remediation are detailed in Note 12 to the Consolidated Financial Statements (refer to point 8.7 of chapter 8).

## SUSTAINABLE USE OF RESOURCES

### Sustainable fresh water use

The Company's activities, mainly those of Refining & Chemicals, and to a lesser extent those of the Exploration & Production and the Integrated Gas, Renewables & Power segments, may potentially have an impact on, as well as be dependent on, water resources, particularly when the activity concerned is located in a water resources sensitive environment.

Fully aware of these challenges, TotalEnergies implements the following water risk management actions:

- monitor water withdrawals to identify priority sensitive sites and then carry out a risk assessment,
- improve water resources management depending on identified needs, by adapting the priority sites' environmental management system.

In order to identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawal of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI[1] Aqueduct tool. In 2022, the Company's sites withdrew 107 Mcm of fresh water, with net consumption of 80 Mcm. The increase in freshwater withdrawal in 2022 is essentially linked to an increase in the activity of gas-fired power plants. 51% of the volume was withdrawn in areas of water stress according to the WRI definition, *i.e.*, areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. These withdrawals represent 9.6% of the Company's overall water withdrawals (including brackish water and seawater). For priority sites defined as those located in water stress areas and withdrawing more than 500,000 $m^3$ per year (on the catchment areas of the Maas or the Scheldt in Belgium, the Seine and the West Coast (France), the Elbe (Germany), the Ebro (Spain) and the Gulf Coast (United States)), TotalEnergies assesses water resources risk levels using, in particular, the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary.

This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users.

In January 2022, TotalEnergies has set a new target for the freshwater resource protection for 2030. The ambition of the Company is now to reduce by 20% its freshwater withdrawal in water stress area between 2021 and 2030. In 2022, the Antwerp refinery, located in an area of water stress, launched a project aiming at reducing its freshwater withdrawal by 9 Mcm per year by 2025.

| Water-related indicator *(Mcm)* | 2022 | 2021 | 2020 |
|---|---|---|---|
| Fresh water withdrawals excluding open loop cooling water | 107 | 101 | 105 |
| Fresh water consumption | 80 | 75 | 75 |
| Fresh water withdrawal in water stress area[1] | 55 | 54 | 52 |

### Sustainable use of land

TotalEnergies limits the use of land to the areas it needs to safely carry out its operations on its facilities.

All the biofuels incorporated by the Company comply with the sustainability, traceability and certification criteria (ISCC, RSPO, etc.) set by the various national regulations (carbon balance, non-deforestation, good land use). These criteria apply to the entire production and distribution chain of biofuels and biopolymers. In addition, TotalEnergies ceased its purchases of palm oil and derivatives at the end of 2022.

In addition, to limit the use of inputs from agricultural production and limit its dependence on arable land, TotalEnergies aims to process in its La Mède biorefinery more than 75% of raw materials from waste and residues (such as waste cooking oils, animal fats) by 2024.

Similarly, as part of the transformation of its Grandpuits refinery into a zero-crude platform by 2024, the biofuel production plant is expected to be supplied mainly by waste and residues supplemented by vegetable oils such as rapeseed favoring local sourcing.

(1) World Resources Institute. The indicators in this paragraph are evaluated from the Projected Basic Water Stress 2030.

## 5.5.4 Managing damage to biodiversity and ecosystems during projects and operations

Aware of the need to preserve biodiversity and protect nature, TotalEnergies ensures that this is taken into account in all its activities by applying the Avoid-Minimize/Restore-Offset mitigation hierarchy. In 2016, the Company pledged to contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. Since 2018, TotalEnergies has been a signatory to the Act4Nature initiative promoted by the French Association of Enterprises for the Environment, now act4nature international alliance.

In 2020, TotalEnergies set itself a new global biodiversity ambition to coincide with the preparation of the United Nations' global biodiversity plan, and updated its public commitments in this field. This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing and abandoned sites and (4) promoting biodiversity. This ambition has been incorporated into the Company's One MAESTRO framework.

A communication plan was developed and deployed in the Company's various segments and R&D. A series of webinars open to all of the Company's HSE personnel was organized to raise awareness of this ambition. A number of specific meetings were held to present this Ambition to the Company's partners and allow their viewpoints and recommendations to be heard.

An overview of the steps already taken under the four main areas of the biodiversity ambition is provided in the table below.

**Biodiversity Ambition**

| | |
|---|---|
| **1.** Voluntary exclusion zones: | **Facts** |
| – The Company recognizes the universal value of UNESCO's world natural heritage areas by not conducting any oil and gas exploration or production activity in these areas. | – This commitment is fulfilled (based on UNESCO sites registered in 2021, the 45th session of the World Heritage Committee scheduled for 2022 in Russia having been postponed). |
| – TotalEnergies has also made a commitment not to conduct any exploration activity in oil fields under the Arctic sea ice. | – As in previous years, in 2022 the Company did not conduct any exploration activity in oil fields under the Arctic sea ice. The list of its licenses in the Arctic zone is available on the Company's website. |
| **2.** New projects: | **Facts** |
| The Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implementing measures to produce a net positive impact (gain) in biodiversity. | A biodiversity action plan has been put in place for all operated production projects and sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2022, this concerned seven projects, four of which are aligned with the performance standards of the World Bank's International Finance Corporation (IFC), which require a net gain. These are:<br>– The BAP for the existing Djeno oil terminal (Republic of Congo), located in a Ramsar zone, was developed in 2015 and is continuing to be deployed, in particular by contributing to the monitoring of the sea turtle nesting area adjoining the site in partnership with the Rénatura NGO. An update to the BAP was also launched in 2022.<br>– The BAP for the existing onshore oil terminal in Tempa Rossa (Italy), for which the concession partly overlaps an IUCN II area, was developed in 2019. An update is underway, with targeted actions to protect habitats, renaturing, landscape protection, promoting the maintenance of traditional agricultural activities and ecotourism.<br>– The net gain BAP of the Tilenga oil project (Uganda), partly located in IUCN zone II, is 100% complete for its design phase and its implementation has started with the launch of the five programs of the net gain plan. For example, the restoration project of the forest corridor of ecological connectivity for chimpanzee habitats of 1,000 ha has been launched with 350 ha planted in 2022. This BAP is aligned with the performance standards of the International Finance Corporation.<br>– The design phase of the EACOP pipeline project (Tanzania) net gain BAP, which skirts an IUCN III zone, has been completed and implementation is under way, some measures having already been implemented proactively. For example, a coral reef restoration project, at the future arrival of the pipeline to the coast, was launched with a Tanzanian NGO. This BAP is aligned with the performance standards of the IFC.<br>– The BAP with net gain of the Mozambique LNG Project (Mozambique) has been completed for the design phase. The implementation of measures related to construction was temporarily suspended due to security problems in the Cabo Delgado area. However, actions outside the BAP, such as the planting of 1,000 hectares of mangrove and the launch of a coral reef restoration project, were carried out in 2022. This BAP is aligned with the performance standards of the IFC. |

| | Biodiversity Ambition |
|---|---|
| | – The design of the net gain BAP of the Papua LNG project (Papua New Guinea) is continuing and ARO measures related to the pre-construction activities deployed. The updating of the biodiversity policy and the development of a biodiversity strategy have been carried out and the external biodiversity and societal advisory committee is being set up. The project does not cross any IUCN or Ramsar protected areas. This BAP is aligned with the performance standards of the IFC.<br>– The BAP of the existing mixed wind/solar terrestrial site Eole/Helio La Perrière (Reunion Island, France) is continuing as part of the redevelopment of the site, in particular with relocation and monitoring activities for the Bourbon Gecko. |
| **3.** Existing sites: | **Facts** |
| A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing operated site important for environment (E&P production sites, refineries, petrochemicals sites, gas-fired power stations) which is ISO14001 certified. TotalEnergies will report on its deployment to the various stakeholders.<br><br>When a site stops its operations, TotalEnergies is also committing to considering the development of a dedicated area rich in biodiversity (e.g. rare species habitats, biodiversity sanctuaries, etc.) as one of the options for its rehabilitation. | In 2022, a biodiversity assessment was carried out on 43 sites that are important for the environment(1) versus 5 in 2021. Since 2021, 48 of the 73 sites important for the environment have been diagnosed, *i.e.*, 66% of the 2025 target. In addition, five sites voluntarily conducted a biodiversity diagnosis (M&S and RC depots, and a training center). The BAPs will be gradually prepared and deployed.<br><br>Regarding the creation of biodiversity-rich areas (habitats, biodiversity sanctuaries, etc.) as a rehabilitation option for sites that have ceased their activity, initial projects include the creation of a habitat for reptiles on the banks of the Garonne River and measures to conserve protected bird and amphibian species in Oberhoffen-sur-Moder, France. Approximately 10 other sites in France are being evaluated, including biodiversity surveys, and the enhancement of biodiversity, which may lead to similar initiatives. |
| **4.** Promotion of biodiversity: | **Facts** |
| – As part of the Climate, Coastal and Oceans component of its Foundation's program, TotalEnergies wishes to support awareness-raising and educational actions for young persons on biodiversity and research actions.<br>– TotalEnergies also commits to sharing biodiversity data collected as part of environmental studies on Company projects with the scientific community and the general public. | The TotalEnergies Foundation program supports the Polar Pod expedition which aims to study the Antarctic circumpolar current to gain a better understanding of air-ocean exchanges, to validate satellite measurements and to observe biodiversity and the impact of human activities in the Southern zone. This knowledge will be disseminated to a young audience through an educational project. The TotalEnergies Foundation also supports the Valasterid research program sponsored by the Concarneau Marine Biological Station (France), one of the sites in the region of the National Museum of Natural History. The objective of this innovative program is to study a process for recovering biomass from the sea stars that proliferate in southern Breton waters, in order to regulate their spread and thus protect resources such as scallops, mussels and other bivalves and the balance of their ecosystems.<br><br>In order to continue sharing its biodiversity data and tools with the scientific community, the Company has joined the international Global Biodiversity Information Facility (GBIF). In 2022, the data loaded concern the Company's projects in Argentina, Suriname, France and Belgium. The data published by TotalEnergies were downloaded more than 8,200 times and quoted 18 times in scientific publications.<br><br>In addition, Oxford University in the United Kingdom (Long Term Ecology Laboratory), TotalEnergies and Equinor launched a collaboration program in 2018 with the aim of developing a tool for screening of marine biodiversity sensitivities. The marine LEFT (Local Ecological Footprint Tool) has now been finalized and is available online for industry, the public sector and NGOs. |

Lastly, the Company has a number of R&D programs relating to biodiversity. These include the development with UNEP WCMC(2) of a biodiversity impact indicators methodology that can be consolidated at Company level, the development of a decision-support tool for actions based on the Avoid-Minimize/Restore-Offset approach, an operational catalog for nature-based solutions, biosurveillance and monitoring tools using the environmental DNA, work on mapping areas vulnerable to climate change and opportunities offered by the Company's sites in terms of ecological corridors. In 2022, as part of its Sustainab'All program, the Company extended axis 3 of its biodiversity policy to all of its operated entities, which must now all have at least one biodiversity action plan.

(1) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants operated by the Company in the Integrated Gas, Renewables and Power segment.
(2) World Conservation and Monitoring Center of the United Nations Environment Program (UNEP).

## 5.5.5 Promoting the circular economy

With regard to food waste and food poverty, TotalEnergies' activities pertaining to food distribution are minor and are therefore not directly affected by these issues.

### PROMOTING CIRCULAR RESOURCE MANAGEMENT

In March 2022, TotalEnergies joined the Platform for Accelerating the Circular Economy (PACE). This initiative, launched by the World Economic Forum and currently hosted by the World Resources Institute (WRI), aims to accelerate the transition to a more circular economy, in particular by developing tools to facilitate this acceleration. In 2022, the Company actively participated in the Circular Economy Indicators Coalition initiative, which aims to develop a set of common circularity indicators for industry. The Company pledges to double the circularity of its businesses within the next 10 years. It contributes to the circular economy at different points in the value chain: through purchasing, sales and production, as well as through the management of its own waste.

#### Biofuels and Sustainable Aviation Fuels (SAF)

Over their life cycle biofuels emit less than half as much $CO_2$e as their fossil equivalents (in accordance with European standards[1]) and therefore represent an element of the decarbonization of liquid fuels. TotalEnergies currently has a biofuel production capacity of 500 kt/y, primarily at the La Mède refinery in France.

Today, more than 90% of biofuels on the market are first generation, *i.e.*, produced from virgin vegetable oils or sugar. TotalEnergies invests in biofuel projects based on animal fats or used oils, thus limiting the conflict of use and the impact on arable land. These advanced biofuels will complete the range of first-generation biofuels.

To meet its ambition to be a leader in the biofuels market, TotalEnergies has transformed its La Mède refinery in France into a world-class biorefinery. Started in July 2019, it has a technology that makes it possible to use all types of crude vegetable oils and a growing share of used or residual animal, food fats, and to transform them into biofuels, mainly for road use.

The site now produces HVO for biodiesel and SAF, bionaphtha for polymers of renewable origin and bioLPG (liquefied gas of renewable origin), for mobility or heating uses. The Grandpuits platform is the second site being transformed into a zero-crude platform, including a biorefinery in partnership with Saria and with a startup foreseen in 2025, a bioplastics plant and a plastics recycling plant. The biorefinery will process 400 kt/y of feedstocks, mostly animal fats and waste cooking oils, and will produce 210 kt/y of aviation biofuels, 50 kt/y of renewable diesel and more than 70 kt/y of bio naphtha/LPG. This biorefinery will thus contribute to the objective of producing 1.5 Mt of SAF by 2030 worldwide.

The agricultural raw materials used meet sustainability and traceability requirements: carbon footprint, non-deforestation and good land use. TotalEnergies has stopped sourcing palm oil and derivatives in 2022 and aims to increase the share of used cooking oil and animal fat in biofuels feedstock to 75% by 2024.

#### Biogas

TotalEnergies is engaged in the development and operation of biomethane production units from organic and industrial waste, and in the marketing of biomethane as a renewable complement to natural gas. The Company aims to be a major player in the sector, in France and internationally. Its 2030 production target was raised in 2022, from 5 TWh to 20 TWh.

Consisting of the same methane molecule as natural gas, biomethane has a renewable character ensured by its method of production; its carbon emissions are very low over its entire life cycle. Injected into the natural gas transport and distribution network, it allows the same uses: fuel and fuel for land and maritime mobility.

- In France,

  In February 2022, the TotalEnergies Biogaz France subsidiary received the Qualimetha label certifying its expertise in the design and construction of methanization units. More broadly, TotalEnergies is actively involved in the development and optimization of the sector in France, particularly within the Strategic Committee of the Sector – New Energy Systems.

  In March 2022, TotalEnergies and the FNSEA signed an agreement aiming at supporting and accelerating the energy, environmental and economic transition of the agricultural sector in France. Covering in particular the development of biomethane, renewable energies and biofuels, this innovative partnership aims to create synergies between the agricultural world and the energy sector, to promote their sustainable development.

  In December 2022, the 8th production unit of TotalEnergies Biogaz France produced its first volumes of biomethane, injected into the Terega gas network. Located in Mourenx, in the Pyrénées Atlantiques, BioBéarn will eventually be the largest methanizer in France.

  The Company's biomethane and biogas production capacity in France has been increased to 700 GWh, i.e. the equivalent of the annual gas consumption of more than 140,000 inhabitants. This represents, on an annual basis, the treatment of more than 730,000 tonnes of waste and a reduction of 140,000 tonnes of $CO_2$ and 21,000 tonnes of synthetic fertilizers[2].
- In Europe, TotalEnergies is a founding member of the BIP, Biomethane Industrial Partnership: an industrial alliance between the European Commission and 12 industry players, present across the entire value chain, from producer to consumer. Its objective is to reach the 35 $Gm^3$ of production set by REPowerEU by 2030, thanks to regular dialogue with the European institutions.
- In the United States, TotalEnergies is engaged in the development of biomethane production as part of its joint venture with Clean Energy Fuels Corp, leader in the American market for the distribution of renewable gas for vehicles, in which it holds 19.09%. In this context, it is finalizing the construction in Texas of a unit of more than 40 GWh, Del Rio, launched in November 2021.

(1) Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.
(2) Estimates based on the key methanation figures presented by Ademe in 2022 and the Report of the first quarter of 2021 of the Energy Regulatory Commission on retail gas markets.

– In India, the joint venture Adani Total Gas Limited (TotalEnergies, 37.4%) is engaged in a first biomethane plant project in Barsana, in the state of Uttar Pradesh. The EPC contract was signed on December 15.

In February 2022, TotalEnergies and Veolia announced the signing of an agreement to recover biomethane from Veolia's waste and wastewater treatment facilities in operation in more than 15 countries. This partnership could make it possible to produce up to 1.5 TWh of biomethane per year by 2025, *i.e.*, the equivalent of the average annual natural gas consumption of 300,000 inhabitants, and avoid the emission of around 300,000 tonnes of $CO_2$ per year.

### Recycled plastics and bioplastics

The circular economy of plastics is based on three axes:

– **Axis 1 – Mechanical recycling,** which is the most mature technology on the market. It deals with raw materials from collective sorting and collection centers and is adapted to the needs of markets such as cars or construction. The Synova subsidiary of TotalEnergies is part of this with its 45 kt production capacity. In December 2021, TotalEnergies partnered with Plastic Omnium to develop recycled polypropylene plastic materials that meet the demanding standards of the car industry. In May 2022, TotalEnergies signed a commercial agreement with Vanheede Environment Group for the supply of post-consumer recycled raw material for the production of polymers for sustainable applications. Finally, to accelerate the development of advanced mechanical recycling and access food-grade applications, TotalEnergies joined the NEXTLOOPP global initiative at the end of 2022 alongside some 40 companies to pilot the production of high-quality recycled polypropylene from post-consumer waste.

– **Axis 2 – Chemical recycling** makes it possible to process waste that cannot be mechanically recycled and to address other markets, such as plastics for food use. TotalEnergies today produces chemically recycled polymers on its platform in Antwerp (Belgium), from the TACoil produced by its partner Plastic Energy, with which it joined forces in September 2020 to build a recycling unit in Grandpuits (France). TotalEnergies has also partnered with Freepoint Eco-Systems and Plastic Energy in October 2021, Honeywell in February 2022, New Hope Energy in May 2022 and Indaver in October 2022 to promote chemical recycling of plastics in the United States and Europe.

– **Axis 3 – Bioplastics.** TotalEnergies offers its customers biopolymers from the processing of biosourced feedstocks (vegetable oils, used cooking oils) processed today at the La Mède biorefinery (France), and tomorrow also at that of Grandpuits. The TotalEnergies Corbion joint venture produces PLA (polylactic acid), a biobased, recyclable and biocompostable bioplastic, at its Rayong plant (Thailand) with a capacity of 75 kt/y and tomorrow at the one under construction at Grandpuits, *i.e.*, up to to 100 kt/y of additional capacity.

## WASTE PREVENTION AND MANAGEMENT

A Company rule lays down a number of minimum waste management requirements. Waste management is carried out in four basic stages: waste identification (technical and regulatory); waste storage (soil protection and discharge management); waste traceability, from production through to disposal (e.g., notes, logs, statements); and waste treatment, with technical and regulatory knowledge of the relevant processes, under the site's responsibility.

TotalEnergies asks its subsidiaries to control the processing of the waste produced by all operated sites, at every stage of their operations. This approach is based on the following four principles, listed in decreasing order of priority:

– reducing waste at source by designing products and processes that generate as little waste as possible, as well as minimizing the quantity of waste produced by the Company's operations,
– reusing products for a similar purpose in order to prevent them from becoming waste,
– recycling residual waste,
– reusing non-recycled products wherever possible.

In 2022, the active sites operated by the TotalEnergies subsidiaries generated 498 kt of waste, including 176 kt of hazardous waste. In January 2022, TotalEnergies set a new target for recycling waste by 2030. The previous objective was to recover at least 50% of the waste produced by the Company's sites.

In 2030, the expected performance is to recover more than 70% of waste:

| The Company's waste balance[(a)] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Non-hazardous waste *(in kt)* | 322 | 335 | 303 |
| Reused non-hazardous waste[(b)] *(in kt)* | 204 | 206 | 190 |
| Hazardous waste *(in kt)* | 176 | 165 | 198 |
| Reused hazardous waste[(b)] *(in kt)* | 98 | 98 | 107 |

(a) Excluding drilling cuttings, excluding digestate from Biogas units, excluding sites that have ceased operations and are in the process of being remediated.
(b) Reuse includes recycling, material recovery and energy recovery.

| Waste treatment processes[(a)] | 2022 | 2021 | 2020 |
|---|---|---|---|
| Reuse[(b)] | 61% | 61% | 59% |
| Landfill | 12% | 16% | 12% |
| Other (incineration without reuse, biotreatment without reuse etc.) | 27% | 23% | 29% |

(a) Excluding drilling cuttings, excluding digestate from Biogas units, excluding sites that have ceased operations and are in the process of being remediated.
(b) Reuse includes recycling, material recovery and energy recovery.

Since 2015, all the Refining & Chemicals segment's plastic production sites worldwide have taken part in the Operation CleanSweep® program. Operation CleanSweep® is an international program that aims to avoid losses of plastic pellets during handling operations by the players in the plastics industry, to prevent their reaching the aquatic environment (zero pellet loss). Since 2015, the program has been deployed at all polymer sites in the Refining & Chemicals segment.

Additionally, TotalEnergies is a founding member of the Alliance to End Plastic Waste, which brings together more than 90 companies, project partners and supporters committed to implementing solutions to eliminate plastic waste in the environment, particularly in the oceans.

# 5.6 A Company committed to its employees

Being a responsible player in the world of energy also means contributing to the well-being of people by being a benchmark as a responsible employer. This ambition primarily concerns employees, whose commitment and skills are the main drivers of the Company's long-term performance.

TotalEnergies has identified its main risks and challenges concerning human resources development:

- attracting and retaining talents throughout their diversity based on the key skills sought by the Company, while abiding by the principle of non-discrimination and equal opportunity,
- supporting talents in the context of changes in business lines and technologies and maintaining the employability of employees in the long term with a view to a just transition,
- ensuring a high level of commitment based on respect for each other, an inclusive corporate culture and improved quality of life at work.

To meet the expectations of new generations and employees in the face of the energy transition and the challenges of climate change, the Company is committed to a just transition, by offering its employees opportunities for development, professional fulfillment, participation in a common ambition to supply responsible energy and taking up unprecedented technological challenges in diverse teams.

TotalEnergies aims to be a benchmark as a responsible employer, by adopting a socially inclusive approach that is open to social dialogue. The Company promotes decent employment and social protection in a working environment that combines performance and conviviality.

In 2019, the Company's Executive Committee launched *Better Together*, a key component of the corporate plan that spearheads TotalEnergies' people-focused ambitions, designed to ensure that each employee's development reflects the Company's business goals and lives up to the employee's expectations. This project is built on three main ambitions that involve all of the Company's subsidiaries[1]: attracting and developing talent all over the world, promoting a management style that can make the most of knowledge and expertise of the Company and pass on its values, and making the Company a good place to work together. The Company has decided to broaden this last ambition by developing in 2023 a ***TotalEnergies Care*** program based on measures and commitments relating to physical and mental health, social protection, the work environment, ways of working and the family sphere.

The *Transforming with our people* program was launched in 2022 to support TotalEnergies employees in the Company's transformation. This program includes not only the implementation of listening, informing and training measures, but also an upskilling and reskilling initiative, and the implementation of a skills map in order to build bridges between historical jobs and the jobs of renewables and electricity, and to target key skills.

To meet its social challenges, TotalEnergies relies on the People & Social Engagement division, whose mission is, in particular, to define and present the Company's human resources strategy and policies for approval by the Executive Committee, in line with the business challenges and the transformation of the Company. Guided by the multitude of realities encountered on the ground, it coordinates the promotion and deployment of new policies to support the Human resources functions in the Company's business segments. At year-end 2021, an awareness-raising campaign of TotalEnergies' global human resources commitments was rolled out with the Company's country chairs. In 2022, the monitoring of the roll-out of these commitments was reinforced by the implementation of an annual barometer, based on social and health reporting indicators (refer to point 5.11.2). This monitoring tool, which has been implemented in the subsidiaries for each business segment, makes it possible to measure the status of the local deployment of the commitments and to identify action plans.

## 5.6.1 Attracting and retaining talents throughout their diversity

Attracting and retaining the diverse talents that the Company needs is one of the key factors in driving the transformation of TotalEnergies into a multi-energy company. Facing those challenges, TotalEnergies carefully manages its hires and departures, provides individualized support for its employees, maintains a responsible employee compensation policy and works to expand employee shareholding.

(1) Excluding Hutchinson.

### 5.6.1.1 RESPONSIBLE MANAGEMENT OF THE COMPANY'S WORKFORCE

#### COMPANY WORKFORCE

As of December 31, 2022, the Company had 101,279 employees belonging to 326 employing companies located in 93 countries.

| Headcount as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Total number of employees** | **101,279** | **101,309** | **105,476** |
| **Breakdown by business segment** | | | |
| Integrated Gas, Renewables & Power segment | 8.5% | 11.0% | 9.1% |
| Exploration & Production segment | 8.6% | 11.8% | 12.1% |
| Refining & Chemicals segment | 50.6% | 49.5% | 50.2% |
| *Refining & Petrochemicals* | *10.8%* | *11.6%* | *11.7%* |
| *Trading &Shipping* | *0.8%* | *0.8%* | *0.7%* |
| *Hutchinson* | *39.0%* | *37.2%* | *37.8%* |
| Marketing & Services segment | 24.9% | 24.9% | 26.0% |
| Corporate | 3.9% | 2.8% | 2.6% |
| OneTech | 3.5% | – | – |
| **Breakdown by region** | | | |
| Europe | 63.3% | 63.2% | 62.8% |
| *including France* | *34.5%* | *34.7%* | *34.0%* |
| Africa | 10.4% | 9.8% | 9.6% |
| North America | 6.0% | 7.5% | 6.8% |
| Latin America | 13.1% | 11.6% | 11.3% |
| Asia-Pacific | 6.5% | 7.2% | 6.7% |
| Middle East | 0.7% | 0.7% | 2.8% |
| **Breakdown by type of employment contract**[1] | | | |
| Permanent (CDI) | 92.1% | 92.8% | 91.9% |
| Fixed-term (CDD) | 7.9% | 7.2% | 8.1% |
| **Breakdown by age group** | | | |
| < 30 years | 17.2% | 16.9% | 17.5% |
| 30 to 49 years | 55.9% | 56.2% | 56.6% |
| > 49 years | 26.9% | 26.9% | 25.9% |

| Managers or the equivalent as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Total number of managers** | **32,313** | **31,249** | **31,118** |

The OneTech branch, which brings together technical and scientific teams from different business segments within a single entity, represents 3.5% of the Company's workforce. The creation of this branch in 2022 has thus had a direct impact on the variation of the headcount of the companies of the of the "socle social commun"[2], in particular those of TotalEnergies SE, which have gone from more than 6,000 in 2021 to approximately 3,500 in 2022.

The tables below present the data by distinguishing between the "Company excluding Hutchinson" scope and the "Hutchinson" scope in order to better reflect the specific characteristics of each scope in terms of workforce changes. Details of the data, as well as other breakdowns, are available with a 5-year history on the TotalEnergies website, in the "Social indicators" section of the "Sustainability" page.

**Company workforce, excluding Hutchinson**

| Headcount as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of employees, excluding Hutchinson** | **61,847** | **63,630** | **65,614** |
| **Breakdown by region** | | | |
| Europe | 67.7% | 65.1% | 64.0% |
| *including France* | *43.8%* | *42.7%* | *42.1%* |
| Africa | 14.1% | 14.0% | 13.6% |
| North America | 5.2% | 7.7% | 6.7% |
| Latin America | 5.5% | 4.4% | 4.2% |
| Asia-Pacific | 6.2% | 7.7% | 7.0% |
| Middle East | 1.3% | 1.1% | 4.5% |

Excluding Hutchinson, the Company has 61,847 employees, with France, Belgium, the United States, Germany, the Netherlands and the United Kingdom being the most represented countries in terms of workforce.

| Managers or the equivalent as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of managers, excluding Hutchinson** | **29,051** | **28,417** | **28,356** |

The decrease in the Company's headcount, excluding Hutchinson between 2021 and 2022, can be explained in particular by the deconsolidation of solar subsidiaries in the United States and Asia, which is partially offset by the consolidation of subsidiaries in electric vehicle charging solutions in Europe, renewable energies in the United States, or new shared service subsidiaries in Europe and Asia. In addition, the implementation of the new OneTech organization, in line with the commitments of the negotiated redundancy plan in France, was more than offset by the increase in the workforce allocated to the development of liquefied natural gas projects in the Dominican Republic.

**Hutchinson workforce**

| Headcount as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of Hutchinson employees** | **39,432** | **37,679** | **39,862** |
| **Breakdown by region** | | | |
| Europe | 56.4% | 59.8% | 61.1% |
| *including France* | *19.9%* | *21.1%* | *20.8%* |
| Africa | 4.5% | 2.8% | 2.8% |
| North America | 7.2% | 7.1% | 7.1% |
| Latin America | 25.0% | 23.9% | 23.0% |
| Asia-Pacific | 6.9% | 6.4% | 6.0% |

The countries where Hutchinson's workforce is most represented after France are Mexico, Poland, Brazil, the United States and China. The increase in headcount is linked to the inclusion of subsidiaries in China and Morocco in the scope of consolidation, and to the recovery in the automotive market, particularly in Mexico and Brazil.

| Managers or the equivalent as of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of Hutchinson managers** | **3,262** | **2,832** | **2,762** |

(1) Types of contract, as defined in point 5.11.4 of this chapter.
(2) Covers the "socle social commun", as defined in point 5.11 of this chapter.

## RECRUITMENT BY THE COMPANY

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Total number of hires on permanent contracts (*CDI*)** | **14,206** | **12,928** | **9,354** |
| Managers (JL ≥ 10)[1] | 18.6% | 13.2% | 15.7% |
| Non-managers (JL < 10) | 81.4% | 86.8% | 84.3% |
| **Breakdown by region** | | | |
| Europe | 30.6% | 19.3% | 25.1% |
| *including France* | *17.9%* | *10.8%* | *14.1%* |
| Africa | 3.2% | 4.3% | 4.7% |
| North America | 16.7% | 22.2% | 16.3% |
| Latin America | 42.8% | 43.4% | 41.9% |
| Asia-Pacific | 6.0% | 10.2% | 8.4% |
| Middle East | 0.7% | 0.6% | 3.6% |
| **Breakdown by age group** | | | |
| < 30 years | 46.4% | 49.6% | 48.7% |
| 30 to 49 years | 46.0% | 43.8% | 45.8% |
| > 49 years | 7.6% | 6.7% | 5.5% |

In 2022, of the 14,206 employees recruited on permanent contracts, 46.4% were young people aged under 30. These recruitments also include experienced profiles for positions requiring key skills, offering them long-term career prospects within the Company.

### Recruitment by the Company, excluding Hutchinson

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of hires by the Company, excluding Hutchinson, on permanent contracts (CDI)** | **5,328** | **5,273** | **3,690** |
| **Breakdown by region** | | | |
| Europe | 60.4% | 37.3% | 46.5% |
| *including France* | *38.1%* | *21.6%* | *31.0%* |
| Africa | 7.1% | 7.4% | 7.6% |
| North America | 10.6% | 27.5% | 15.4% |
| Latin America | 9.4% | 8.0% | 7.8% |
| Asia-Pacific | 10.5% | 18.4% | 13.6% |
| Middle East | 2.0% | 1.4% | 9.1% |

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Breakdown by business segment** | | | |
| Integrated Gas, Renewables & Power segment | 24.2% | 47,3% | 28.3% |
| Exploration & Production segment | 5.1% | 4.1% | 3.8% |
| Refining & Chemicals segment | 11.8% | 7.5% | 9.6% |
| Marketing & Services segment | 48.6% | 38.4% | 51.3% |
| Corporate | 7.4% | 2.7% | 7.0% |
| OneTech | 2.9% | – | – |

In 2022, 5,328 employees were recruited on permanent contracts within the scope of consolidation, excluding Hutchinson. Recruitment has targeted the business lines that are driving the Company's transformation, in particular in France to renew skills after the negotiated redundancy plan and to strengthen the OneTech teams, but also within the various business segments, with a local presence located close to the sites.

In 2022, TotalEnergies companies, excluding Hutchinson, hired 3,765 employees on fixed-term contracts, mainly in France, in line with its proactive policy of recruiting work-study students.

### Recruitment by Hutchinson

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| **Number of hires by Hutchinson on permanent contracts (CDI)** | **8,878** | **7,655** | **5,664** |
| **Breakdown by region** | | | |
| Europe | 12.7% | 6.9% | 11.0% |
| *including France* | *5.7%* | *3.4%* | *3.0%* |
| Africa | 0.9% | 2.2% | 2.8% |
| North America | 20.3% | 18.5% | 17.0% |
| Latin America | 62.9% | 67.8% | 64.2% |
| Asia-Pacific | 3.2% | 4.6% | 5.0% |

In 2022, 8,878 employees were hired on permanent contracts by Hutchinson, mainly in Mexico, the United States and Brazil. In addition, 3,760 employees were hired on fixed-term contracts, compared with 1,795 in 2021, in view of the fluctuations in the automotive market.

## DEPARTURES FROM THE COMPANY

| As of December 31 | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| Scope | Company | Excluding Hutchinson | Hutchinson | Company | Excluding Hutchinson | Hutchinson | Company | Excluding Hutchinson | Hutchinson |
| **Number of departures[(a)]** | **12,607** | **4,049** | **8,558** | **13,132** | **3,942** | **9,190** | **10,109** | **3,373** | **6,736** |
| Deaths | 96 | 73 | 23 | 106 | 77 | 29 | 134 | 95 | 39 |
| Dismissals | 1,775 | 637 | 1,138 | 1,982 | 866 | 1,116 | 2,888 | 854 | 2,034 |
| Resignations | 9,241 | 2,640 | 6,601 | 6,223 | 2,386 | 3,837 | 3,856 | 1,885 | 1,971 |
| Contract termination by mutual agreement[(b)] | 1,495 | 699 | 796 | 4,821 | 613 | 4,208 | 3,231 | 539 | 2,692 |
| **Voluntary departures** | **10,736** | **3,339** | **7,397** | **11,044** | **2,999** | **8,045** | **7,087** | **2,424** | **4,663** |

(a) Departures from permanent contracts (CDI), excluding retirements and transfers.
(b) Including "ruptures conventionnelles" in France.

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).

| As of December 31 | 2022 | | | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| Scope | Company | Excluding Hutchinson | Hutchinson | Company | Excluding Hutchinson | Hutchinson | Company | Excluding Hutchinson | Hutchinson |
| **Resignation rate** | **9.1%** | **4.1%** | **17.5%** | **5.9%** | **3.6%** | **9.6%** | **3.6%** | **2.7%** | **5,1%** |
| Average length of service in the Company[(a)] | 11.3 | 12.6 | 9.3 | | | | | | |
| **Turnover rate[(b)]** | **12.4%** | **6.4%** | **22.7%** | **12.5[(c)]** | **6.0%[(c)]** | **23.1%[(c)]** | **9.4%[(c)]** | **4.9%[(c)]** | **17.5%[(c)]** |
| Women | 42.7% | 40.9% | 43.5% | 41.7% | 33.9% | 45.1% | 33.9% | 30.9% | 35.4% |
| Men | 57.3% | 59.1% | 56.5% | 58.3% | 66.1% | 54.9% | 66.1% | 69.1% | 64.6% |
| **Breakdown by region** | | | | | | | | | |
| Europe | 31.5% | 52.3% | 21.7% | 27.8% | 45.0% | 20.4% | 33.4% | 39.9% | 30.2% |
| *including France* | *13.5%* | *31.8%* | *4.9%* | *11.0%* | *26.2%* | *4.5%* | *9.7%* | *20.0%* | *4.6%* |
| Africa | 3.2% | 8.2% | 0.8% | 2.5% | 6.6% | 0.8% | 2.9% | 7.6% | 0.5% |
| North America | 15.8% | 9.5% | 18.8% | 17.9% | 21.4% | 16.5% | 15.0% | 17.3% | 13.8% |
| Latin America | 41.4% | 10.3% | 56.1% | 43.8% | 9.2% | 58.6% | 38.4% | 10.0% | 52.5% |
| Asia-Pacific | 7.4% | 17.6% | 2.6% | 7.0% | 14.6% | 3.7% | 6.5% | 13.6% | 3.0% |
| Middle East | 0.7% | 2.1% | - | 1.0% | 3.2% | - | 3.8% | 11.6% | - |

(a) By year. Data available from 2022.
(b) The 2022 turnover rate is calculated as follows: Total departures from permanent contracts (deaths, dismissals, resignations, Contract termination by mutual agreement) / total headcount at December 31 of the previous year.
(c) Data restated according to the new calculation method. The rate of departures, considering total departures/total workforce as of December 31 of the current year, was 14.7% for the Company in 2021 (7.0% excluding Hutchinson and 27.7% Hutchinson) and 11.2% for the Company in 2020 (5.6% excluding Hutchinson and 20.3% Hutchinson).

The Company's turnover rate remains stable at 12.4%. It reflects the significant disparity between the Hutchinson scope, which has a high turnover rate of 22.7%, due to the activity of the automotive market, particularly in Mexico and the United States, and the scope of the Company, excluding Hutchinson, where it stood at 6.4% at the end of 2022.

### 5.6.1.2 A RESPONSIBLE COMPENSATION POLICY

The Company's compensation policy applies to all companies in which TotalEnergies SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Company's corporate social responsibility commitments.

It consists of providing levels of compensation that are higher than the minimum level observed locally, through regular benchmarks, in countries where legislation guaranteeing a minimum wage is lacking.

The Company's compensation policy is designed to offer competitive, fair and responsible compensation. In particular, it stipulates that compensation levels must be equivalent internally for positions with the same level of responsibility in a given environment (activity, country). Fair treatment is ensured within the Company through the widespread use of weighting for management positions (JL ≥ 10) via the Hay method. Performance reviews for Company employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire Company.

The compensation structure for the Company's employees is based on the following components, depending on the country:

- **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The salary-raise campaigns are intended to compensate employees' individual performance according to the targets set during the annual individual review, including at least one HSE target,
- **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2022, 82.6% of the Company's entities (scope of the compensation survey; refer to point 5.11.2) included HSE criteria in the variable compensation. In particular, HSE criteria include greenhouse gas reduction targets.

**Supplemental collective variable compensation programs** are implemented in some countries, such as France, via incentives and profit sharing. In France, under the agreement signed for 2021-2023, applicable to the companies that signed the agreement[(1)] (encompassing approximately 16,500 employees in 2022), the amount available for employee profit-sharing is based in particular on environmental and social criteria, and is determined on the basis of:

- financial parameters (the Company's return on equity as an absolute value and compared to four peers[(2)]),
- the attainment of safety targets (injury rate and accidental deaths in the establishments in France of the companies party to the agreement),
- the attainment of energy transition targets (reduction of greenhouse gas emissions from the establishments in France of the companies party to the agreement),
- criteria assessed for the entity to which the employees belong, relating to employee commitment to priority areas identified by the *Action!* program, which is mainly led by the TotalEnergies Corporate Foundation (Fondation d'entreprise) in France,
- criteria relating to the performance of the entity in question (production, sales volumes, gross margins, operating costs, etc.).

(1) Covers TotalEnergies EP France and the entities covered by the "socle social commun" scope, as defined in point 5.11 of this chapter.
(2) ExxonMobil, Shell, BP and Chevron.

The Company provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries, as well as the Company's standards, designed to ensure that each employee can:

- in case of illness, receive coverage that is at least equal to the median amount for the national industrial market,
- participate in a savings or supplementary retirement plan,
- organize the protection of the family in the event of the death of the employee.

To this end, TotalEnergies is deploying a number of commitments and mechanisms worldwide. Each entity is requested to:

- where appropriate, set up a pension and health insurance plan, in addition to the legal plans in force, with the assistance of Human Resources department of the business segment,
- propose to employees a health check at least every two years, excepting specific local regulations or contexts (refer to point 5.3.4),
- set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary. At the end of 2022, nearly 90% of the Company's permanent employees were covered worldwide.

TotalEnergies has also set up a global mental health prevention program to take care of employees, wherever they are in the world.

These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law.

In 2021, TotalEnergies initiated a process to assess any discrepancies between the direct salary and the **living wage**[1] in all its subsidiaries[2]. The result of the studies carried out show that, at the end of 2022, the Company had reached its target, because 100% of employees received a direct salary that exceeds the living wage in the country or region in which they work.

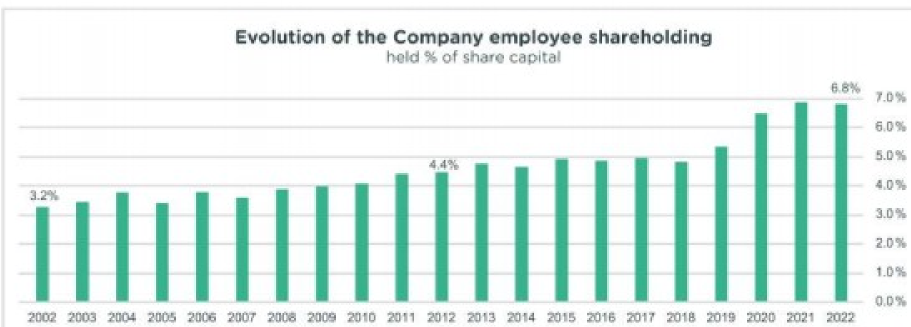
A living wage is defined as an income that allows employees:

- to provide a decent life for their family,
- for standard working hours,
- to cover their essential expenses (food, water, electricity, housing, education, health, clothing, etc.), and
- the ability to cope with some of life's uncertainties.

### 5.6.1.3 A PROACTIVE POLICY TO INCREASE EMPLOYEE SHAREHOLDING AND EMPLOYEE SAVINGS

**Employee shareholding**, one of the cornerstones of the Company's human resources policy, is offered through three main programs: the grant of performance shares, share capital increases reserved for employees, and employee savings. In this way, TotalEnergies hopes to encourage employee shareholding, strengthen employees' sense of belonging to the Company and give them a stake in the Company's performance by allowing them to reap benefits from their commitment.

As a result, more than 65% of the Company's employees are TotalEnergies shareholders and employee shareholding[3] represents 6.8% of the Corporation's share capital as of December 31, 2022, increasing by more than 50% over the last 10 years (refer to point 6.4.1 of chapter 6).

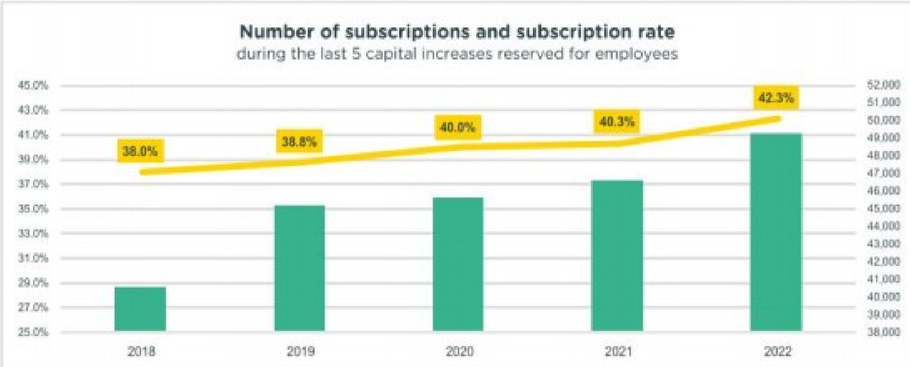



Each year since 2005, TotalEnergies has granted performance shares to many of its employees (more than 10,000 each year since 2009). Those shares are granted definitively only upon the fulfillment of performance conditions assessed at the end of a vesting period of three years. Two of the performance conditions GHG emissions reduction targets (refer to section 4.3.4 of chapter 4). Under the 2022 plan approved by the Board of Directors in March 2022, the total volume of performance shares granted was up by 8.4% compared with the 2021 plan. More than 50% of 2022 plan beneficiaries had not received performance shares the previous year. More than 11,700 employees participated in this plan, over 97% of whom are non executives.

TotalEnergies also invites employees of companies in which it holds more than 50% of voting rights, and that subscribe to the Shareholder Group Savings Plan (PEG-A) created in 1999 for this purpose, to subscribe to share capital increases reserved for employees. Share capital increases reserved for employees take place annually. Depending on the employees' location, these campaigns are completed either through Employee Mutual Funds[4] (FCPE) or by subscribing TotalEnergies shares or American Depositary Receipts (ADRs) in the United States.

(1) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(2) It applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50%.
(3) As defined in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Articles of Incorporation of the Corporation.
(4) TotalEnergies Actionnariat France, TotalEnergies France Capital+, TotalEnergies Actionnariat International Capitalisation and TotalEnergies Intl Capital.

Pursuant to the authorization given by the Annual Shareholders' Meeting on May 25, 2022, the Chairman and Chief Executive Officer, acting in accordance with the powers delegated to him by the Board of Directors on 22 September 2022, decided on October 11, 2022 to proceed with a capital increase reserved for employees to be carried out in 2023 with a discount of 20%. This operation is expected to involve about 100 countries. Employees will benefit from a matching contribution of one free share for each share subscribed, up to a limit of five. The shares subscribed will give holders current dividend rights. In addition, for the first time, in 2023, employees of French companies will be able to finance their subscription to the capital increase by investing their profit-sharing bonuses. The previous share capital increase reserved for employees was carried out in June 2022. Over 49,000 current and former employees in 101 countries took part in this share capital increase, which resulted in the subscription of 9,130,380 shares at a price of €37 per share. Excluding subscriptions by former employees, the total amount subscribed internationally represents 57% of the total amount, and exceeds that of France in the last three operations.




**Employee savings are also developed** through the TotalEnergies Group Savings Plan (PEGT), open to employees of the Company's French subsidiaries participating in the 2002 agreement and its amendments. This plan allows investments in a wide range of mutual funds, including the TotalEnergies Actionnariat France fund that is invested in TotalEnergies shares.

In France, a new agreement on **retirement savings**, within the limits of the "socle social commun"[(1)], came into force on January 1, 2022. This agreement had introduced an optional Collective Retirement Savings Plan (PERCOL), which is the successor of the PERCO, previously introduced by the 2004 Group agreement on retirement savings schemes. Other saving plans are open in some Company subsidiaries in France covered by specific agreements. Company employees can make discretionary contributions as part of those various plans, which their employer may supplement under certain conditions through a matching contribution. The Company's subsidiaries in France made gross matching contributions totaling €71.3 million in 2022.

## 5.6.2 Supporting and maintaining long-term employability of employees

Maintaining employees' long-term employability is one of the key social challenges of the Company, and one of the key factors in ensuring the success of the Company project. In order to manage this risk and enable a just transition, the Company has decided to invest in the development of skills using a robust learning model and individual support adapted to the transformation and the changes in business lines and technologies.

### 5.6.2.1 A ROBUST LEARNING MODEL

With those challenges in mind, TotalEnergies launched in 2019 the *Better Together* project, with the aim of developing each employee's talents and helping each employee to actively manage their career by supporting them in their choices and development. Managers are responsible for the development of their team and the attention paid to the workplace and to the well-being of their employees on a daily basis, in addition to the management of the activity. A training program allows them to develop their skills from the moment they take up a management position and throughout their subsequent career. This course is made up of a common core that includes awareness of mental health risks, in particular. It strengthens managers in their role as manager-coaches. In 2022, 750 co-development workshops were attended by more than 4,500 trainees, to encourage managers to collectively find solutions while strengthening their proximity with their teams. This system helps managers to support their teams and allows them to discuss managerial issues.

The *Better Together* program ensures that every employee is supported by their manager in their professional development on a daily basis and during the individual interviews when they start the job, when returning from an extended period of absence or as part of the annual campaign. These professional interviews are an opportunity to review the past year and discuss the employee's career plan and skills. These interviews are the ideal occasion to discuss the quality of life at work and, in particular workload and work-life balance.

(1) Covers the "socle social commun", as defined in point 5.11 of this chapter.

| % of employees who had an AIR during the year | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| All employees | 96.9% | 92.3% | 87.4% |
| Managers (JL ≥ 10)[a] | 97.5% | 96.6% | 95.1% |
| Non-managers (JL < 10)[a] | 96.6% | 90.4% | 84.0% |

(a) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).

In addition, more than 400 talent developers have been mobilized to support employees individually in their professional development and to provide them with dedicated support. Since their introduction, more than 6,000 individual career reviews have been carried out to help employees make informed decision in planning their careers effectively.

The technical and business know-how of employees and their ability to manage large projects underpin the Company's operational excellence and are essential strengths for the Company's development. TotalEnergies is convinced that relying on its employees and their commitment is the key factor of the achievement of its ambition to become a major player in the energy transition. TotalEnergies is developing the skills of its employees through three levers:

- on-the-job training, reinforced by an internal mobility policy that allows each employee to change jobs regularly and to acquire new skills in their work on a daily basis,
- the pooling of know-how within different communities of professions or experts, which allows for the development of skills in a collaborative spirit between peers,
- training, by offering adapted further education programs aimed at developing the skills and employability of employees.

This robust learning model allows TotalEnergies to adapt to technical changes and the unforeseeable environmental factors, while preserving the employability of employees.

Three years after the launch of the *Better Together* project, the results of the TotalEnergies Survey[1] indicate that 76% of employees feel that their manager's feedback helps them to make progress, 73% feel they are involved in their careers and 78% have acquired skills over the past 12 months. Professional mobility is now an internal recruitment process that allows employees to become involved in their career development and to apply for vacancies[2] in complete transparency. More than 10,000 vacancies were published on the internal mobility platform in 2022. 79% of employees stated that they have access to information about the vacancies. The average time spent in the same job was overall 6.5 years, and 4.8 years for managers. In addition, 93.2% of subsidiaries carry out information and experience-sharing actions with their employees to promote the development of their skills.

The Company's **training** policy is structured around five major areas:

- sharing TotalEnergies' basic corporate values, particularly with respect to HSE, the climate, ethics, leadership, innovation and digital technology,
- supporting the development of existing activities and creating new ones in order to achieve the Company's ambitions,
- strengthening key skills in all the Company's business areas to maintain a high level of operating performance in the workforce,
- promoting employees' integration and career development through training designed to teach employees about the Company, management skills and personal development,
- supporting the policy of mobility, diversity and inclusion within TotalEnergies through language and intercultural training.

When they start a new position, an individual training plan that identifies their training needs for the next three years is defined with the manager, so that employees have the resources they need to be successful in their new job and upgrade their skills. At the end of 2022, the Executive Committee decided to make all employees active players in their professional training strategy. In addition to the mandatory training programs required to remain in their job, in 2023, every employee will have the option of enrolling for up to 3 days of training of their choice each year in fields that they consider to be important for their development. The objective of the Executive Committee is that every employee can devote at least 5 days a year to their professional training.

The Company's training catalog offers nearly 6,000 training content (on-site and remote training) covering all technical, business and cross-functional fields, including behavioral soft skills. After each training session, participants, or their manager if the case may be, receive a satisfaction survey designed to assess the quality of the training and its results in the light of the stated objectives. In 2022, the satisfaction rate was 84.5%[3].

The Company's efforts in terms of training continued in 2022. 97.3% of employees followed at least one training course during the year, compared with 93% in 2021. The average number of training days per employee stood at 4.7 including on-the-job training, one of the skills development levers. Excluding on-the-job training, the average number of training days per employee stood at 3.3 in 2022, up from 2021. The end of COVID-19 restrictions allowed for more face-to-face training and the adjustment of the balance between on-site and remote training. This was reflected in the increase in training expenses, which are around €163 million in 2022, compared with €132 million in 2021.

| Average training cost per employee | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| In € thousands | 1.8 | 1.4 | 1.1 |

(1) Results, excluding Hutchinson, of the latest internal opinion survey conducted in 2022 (refer to 5.6.3.3).
(2) Publication of all vacancies representing 90% of positions, except for senior management positions whose mobility remains driven by succession plans.
(3) Within the scope of TotalEnergies Learning Solution representing nearly half of the training days.

**Average number of training days per year and per employee[(a)]**


* On-the-job training data collected from 2021.

| **Average number of training days/ year per employee[(a)]** *(onsite and remote training, excluding on-the-job training)* | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| Women | 3.0 | 2.8 | 2.2 |
| Men | 3.4 | 3.1 | 2.5 |
| **By segment** | | | |
| Integrated Gas, Renewables & Power segment | 2.3 | 1.5 | 1.4 |
| Exploration & Production segment | 6.3 | 4.5 | 3.9 |
| Refining & Chemicals segment | 2.7 | 2.9 | 2.2 |
| *Refining & Chemicals* | *2.7* | *2.9* | *2.2* |
| *Trading & Shipping* | *2.9* | *2.3* | *1.6* |
| Marketing & Services segment | 3.4 | 2.8 | 2.3 |
| Corporate | 4.1 | 5.0 | 3.8 |
| OneTech | 6.0 | | |
| **By region** | | | |
| Europe | 2.7 | 2.4 | 2.0 |
| *including France* | *2.9* | *2.7* | *2.2* |
| Africa | 4.7 | 4.5 | 2.6 |
| North America | 3.7 | 3.3 | 3.8 |
| Latin America | 4.6 | 5.1 | 3.3 |
| Asia-Pacific | 3.2 | 2.5 | 3.5 |
| Middle East | 1.8 | 1.1 | 0.9 |

| **Breakdown by type of training** *(onsite and remote training, excluding on-the-job training)* | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| Technical | 23% | 31% | 30% |
| Health, Safety, Environment, Quality (HSEQ) | 23% | 25% | 25% |
| Language | 8% | 8% | 10% |
| Support function technical training | 15% | 16% | 15% |
| Management | 6% | 6% | 7% |
| Personal development | 4% | 4% | 4% |
| Sales | 3% | 2% | 2% |
| Cross-functional training | 18% | 8% | 7% |

(a) This number is calculated using the number of training hours, where 7.6 hours equal one day.

2022 saw the global deployment of "Visa for TotalEnergies", a cross-functional training program designed to help employees understand the Company's ambition and the challenges of transformation. The program includes modules dedicated to climate, biodiversity and the sustainable energy mix in line with the transformation strategy and stakeholder expectations (refer to point 5.6.2.2).

TotalEnergies maintains a technological training center, Oléum, that combines technological expertise with more than 30 specialized, certified instructors and technical complexes for instructional purposes. The center, located on two sites in France (Dunkerque and La Mède), offers trainees a full-scale Seveso environment and provides technical career training in operations, maintenance, inspection, safety and other fields. Certified as a corporate Apprentice Training Center (CFA) via TotalEnergies Learning Solutions, Oléum trains apprentices both for inside and outside the Company. Internationally recognized qualifications are also offered, such as the Basic Offshore Safety Induction and Emergency Training program, approved by the Offshore Petroleum Industry Training Organization, and training in wind power that is certified by the Global Wind Organization. Oléum welcomes trainees from all the Company's segments worldwide as well as from its partners and external customers.

## 5.6.2.2 SUPPORT ADAPTED TO THE TRANSFORMATION

The Company has embarked on an in-depth transformation that is only possible with the women and men of the Company. To promote a just transition and support TotalEnergies' employees in this transformation, the *Transforming with our people* program was launched at the end of 2022, focused on three actions: listening, informing and training.

– **Listening**: Tools have been deployed to measure knowledge, understanding and support for TotalEnergies' new ambition, as well as the feelings and state of mind of the Company's teams in the field. The latest survey showed that 86% of employees are aware of the Company's ambition and 87% are confident in TotalEnergies' ability to meet its targets. The challenge now is to implement this ambition in countries and entities more concretely, in order to enable everyone to find their place in the new Company. In addition, in April 2022, 300 young managers from the Company were invited to speak in the presence of the members of the Executive Committee on key topics, such as climate change, sustainable development, diversity and inclusion, and talent management. On the basis of the proposals expressed, working groups were organized to define the concrete implementation of action plans.

- **Informing**: The *Live Round Tables* program has deployed to present the emblematic transformation projects and make heard the voices of the Company's men and women who are leading them. In 2022, 21 subjects illustrating the energy at the heart of the strategy (six related to electricity, three related to petroleum products, two dedicated to natural gas and nine to decarbonized molecules) were recorded live and distributed on a weekly basis. This program is continuing in 2023.
- **Training**: In 2022, in a dedicated two-day program, "Visa for TotalEnergies", spread over several periods and involving the Company's management, nearly all managers and a portion of non-managerial employees were trained in 112 countries on climate issues, the energy transition and the Company's strategy to address them. A specially adapted version of the program was developed in order to continue the deployment by targeting the operational teams of the industrial sites more specifically. In 2023, a similar program will include two days of training on the fundamentals of electricity.

The Company's transformation is also being supported by developing certain internal skills. To this end, the Company can rely on its robust skills development model, which is a mix of on-the-job learning, peer-to-peer learning and training. This model provides solid support for the development of the future skills that the Company needs to lead the energy transition.

In addition, the Company has launched an upskilling initiative managed by the OneTech organization, which brings together more than 3,000 engineers, technicians and researchers from different business segments in a single entity, with their wealth of training and experience in their original field of activity. This long-term initiative anticipates the changes to the Company's activities, and is based on a map of typical roles and skills that can be transposed to build bridges and skills development paths according to the needs that will emerge in the coming years. Short courses "passerelles" that require a few weeks of training to acquire the skills needed to do a job in a technical discipline, but in a new scope of application. They aim, for example, to support transfers between Exploration & Production projects and solar projects. The upskilling courses include training, coaching, role playing and mentoring over a longer period of time to support career development. The Company has launched pilot programs to meet immediate needs and to gradually and pragmatically build a robust approach. In 2022, 12 courses were specifically developed, particularly for solar application engineering positions or wind farm engineering, and three additional courses are under construction.

At OneTech, the organization by technical field (projects, processes, electricity, operation, etc.) also enables the teams to develop their expertise in all the industrial processes, including in unfamiliar areas of activity (production, refining, solar, wind, etc.) through concrete exposure to them. The development of this versatility is important to support the development of the Company's projects across the entire energy mix and business segments. Since the creation of OneTech, 35 technical conference sessions have been organized. They constitute a core of technical documentary resources organized by energy, which provide input for the training programs. New sessions are scheduled for 2023 on biomass and electricity.

The concentration of technical skills also makes it possible to build multidisciplinary teams to carry out new industrial projects, regardless of the sector of activity. For example, for the implementation of the green hydrogen production unit in the La Mède biorefinery, Refining & Chemicals relied on the support of a team combining all the necessary technical skills (solar, electricity, hydrogen and refining). This is also the case for the development of new biofuel or biopolymer production processes with OneTech's research and development teams. The OneTech teams are also involved in other projects directly related to the Company's ambition, such as Aramis, a major global $CO_2$ storage initiative, and in Iraq with the deployment of multi-energy solutions.

In Marketing & Services, training for service station staff has been developed on the specific features of charging infrastructures for electric vehicles. In 2022, 400 operators, maintenance-construction engineers and sales teams were trained on the subject. The 2023 program is expected to bring 1,000 additional employees in France onboard, and gradually on an international scale. More generally, Marketing & Services plans to train the sales teams in the fundamentals of electric mobility in order to give them the necessary operational skills to support the Company's customers in sustainable mobility solutions. This upskilling of the teams aims to support TotalEnergies' goal of operating 150,000 charging points for electric vehicles.

In September 2022, TotalEnergies and the Technical University of Denmark signed an agreement on the creation of a center of excellence in low carbon energies, which will aim in particular to develop reliable, cost-effective and low-emission energy solutions, improve the intermittence of renewable energies and accelerate the decarbonization of industrial facilities. In addition to the construction of a new generation hybrid electric platform and research collaborations, this center of excellence will also support employee training with online courses and tailor-made training on electricity and clean energies.

To support its ambition to become carbon neutral (net zero emissions) by 2050, together with society, TotalEnergies is also implementing projects to convert industrial sites, while paying close attention to potential social impacts. The transformation of the Grandpuits refinery into a zero-oil platform continued in 2022, drawing on the know-how and skills of the local teams. The implementation of individual and personalized support for transfers or a suitable training plan, determined following in-depth career interviews, allows this industrial redeployment to be carried out without any redundancies.

The flexibility provided by these programs makes it possible to adapt at the pace and in line with the schedule of the Company's multi-energy strategy and to find the balance that enables teams to be shared and new types of specialists to be developed. Support for employees is offered during the major stages of the transformation, based on responsible Human Resources policies, particularly in terms of social dialogue, diversity and inclusion, decent work, social protection and well-being, in order to achieve a just transition.

## 5.6.3 Ensuring a high level of engagement based on respect for each other and enhancements to workplace quality of life

To ensure a high level of engagement from its employees, the Company promotes human resource development based on respect for each other and enhancements to quality of life on the job. TotalEnergies takes action in a variety of ways to fulfill that goal. Beyond its efforts in the realm of the workplace and employee relations, TotalEnergies intends on promoting diversity, equal opportunity and an inclusive corporate culture.

### 5.6.3.1 PROMOTING EQUAL TREATMENT OF EMPLOYEES AND AN INCLUSIVE CULTURE

Throughout its activities, diversity is integral to TotalEnergies' identity and key to its success. The Company has long been committed to promoting equal opportunity and diversity, and strives to promote an inclusive corporate culture and an environment that allows every employee to express and develop his or her potential.

The diversity of its employees and management is crucial to the Company's competitiveness, appeal, acceptability and capacity for innovation. TotalEnergies aims to develop its employees' skills and careers by implementing an inclusive Human Resources policy, while excluding any discrimination related to national, ethnic or social origins, gender, sexual orientation or gender identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group.

This policy is supported at the highest levels and promoted by the Diversity and Inclusion Council, which is chaired by a member of the Company's Executive Committee. The Diversity and Inclusion Council is also charged with making specific recommendations on issues identified each year by the Executive Committee.

Recruitment teams are trained in non-discrimination and unconscious bias. An internal guide entitled *Eliminating Discrimination from the Recruitment Process* has also been put in place and widely distributed. Diversity and inclusion awareness actions are regularly organized with employees and managers.

Each entity is responsible for creating an inclusive working environment to offer all employees the same career opportunities and to allow them to benefit from all the skills and diversity of approaches. The 2022 *Diversity & Inclusion Days* were organized globally in the Company on the theme of inclusion. These events raised the issues of diversity, inter-generational and inter-cultural relations, disability, sexual orientation or gender identity.

Promoting equal opportunities, diversity and inclusion is a long-standing policy and practice for the Company. TotalEnergies was a corporate forerunner in the matter of diversity. The Diversity roadmap, which sets out the targets for 2025 on gender balance and internationalizing management bodies and senior management, was rolled out by business segment in 2022 to continue the existing momentum.

In addition to gender and international diversity, disability forms an integral part of the Company's diversity and inclusion policy. Initially deployed and coordinated in France, the disability policy was introduced worldwide in October 2018 through the signing of the International Labour Organization (ILO) Global Business and Disability Network Charter.

TotalEnergies has renewed its commitment to diversity, equal opportunities and economic and social performance by participating in the French Economic Inclusion Summit in November 2022.

#### GENDER EQUALITY IN THE WORKPLACE

TotalEnergies is committed to upholding and promoting the principle of gender equality in the workplace, and ensuring and monitoring its proper application. Gender equality is fostered Company-wide through a global policy of gender diversity, quantitative targets set by the Company's executive management, human resources procedures that take gender concerns into consideration, agreements aimed at promoting a better work-life balance and actions to raise awareness and train the workforce.

TotalEnergies' commitment to gender equality in the workplace begins at the recruitment stage and continues throughout the employee's career, particularly in the processes to identify high-potential employees and to appoint managers.

To ensure a better gender balance in its senior management, the Company has set itself the following targets for improvement in its highest managerial positions to be achieved by 2025, in which women comprise:

- 30% of the members of the Executive Committee (women represented 25% in 2022),
- 30% of the G70[1] (women represented 32.9% in 2022).

The Company has set the same target for its other governing bodies and leadership positions, with women comprising:

- 30% of female senior executives (they accounted for 27.5% in 2022),
- 30% of female senior managers (they accounted for 23.8% in 2022).

TotalEnergies builds talent pools and regularly organizes campaigns to identify high-potential employees within the Company, in order to offer them a specific development program. At the end of 2022, women accounted for 38.3% of the pool of high-potential employees. In addition, particular attention is paid to attracting more women to the technical and business functions (at the end of 2022, 23.9% of managers on permanent contracts in technical or sales positions were women[2]).

The Company's commitment has been materialized by the entry of two women in the Executive Committee (eight people) since 2016. In terms of gender equality in the 10% of the highest management positions of the Company, the proportion of women equals 24.9%[3].

(1) Senior executives with the most important responsibilities. Together with the Executive Committee, they form part of the Company's management bodies within the meaning of point 8.1 of the AFEP-MEDEF Code.
(2) Technical and sales functions, excluding support functions (e.g., human resources, legal affairs, purchasing, etc.).
(3) Percentage calculated on the basis of 98,679 employees.

TotalEnergies aims to recruit women in proportions that reflect, at a minimum, the percentage of women graduates at schools and universities in its business sectors and to come closer to parity in all its external recruitments of managerial staff. The Company strives to promote at least the same proportion of men and women within the overall group of people eligible for the promotion under consideration. The mobility process implemented as part of the Better Together initiative ensures greater transparency and offers new prospects for career growth for both men and women in the Company's various professions.

To encourage young women to opt for careers in technical fields, TotalEnergies has partnered with France's *Elles Bougent* organization since 2011. Some 250 female engineers regularly meet with high-school girls to talk about careers in science. Throughout the Company, female engineers and technicians from all backgrounds are encouraged to serve as role models for female high school and university students to illustrate women's contributions to the fields of science and technology.

Promoting an inclusive culture also involves changing mentalities: awareness-raising, training and communication actions, such as the *Diversity & Inclusion Days* are regularly carried out for managers and employees. Internal training courses for women such as *Young Female Talents and How to Market Yourself* or *How extraordinary women communicate* are offered.

Through its *mentoring* activities and development workshops, the TWICE (*TotalEnergies Women's Initiative for Communication and Exchange*) network also helps to expand the gender diversity policy. Its goal is to promote the development of women within the Company, particularly towards management roles, and assist them in their career development. Established in 2006, it is now present in France and abroad (with 70 local networks) and has nearly 4,000 members. A *mentoring* program operates in France and internationally to help women gain insight into key phases of their career. In 2022, senior executives represent 20% of mentors. More than 2,400 women have taken part in the program since 2010. In 2018, TWICE launched the TWICE@Digital initiative to encourage networking among women working in digital technology in the Company and, more broadly, help women become more digital-savvy, so they can learn about the changes underway and the impact of those changes on their work. As it was the case in 2021 and in the previous editions, Mrs. Lise Croteau, a director of TotalEnergies SE met with the Company's female employees at the TWICE (TotalEnergies Women's Initiative for Communication and Exchange) event in 2022, a global event at which she spoke about her career.

The Company has signed international charters and agreements and joined initiatives about diversity and inclusion to demonstrate its commitment at the highest levels of decision-making.

In 2010, for example, TotalEnergies signed the *Women's Empowerment Principles – Equality Means* Business as set out in the United Nations Global Compact, and the Company regularly shows its commitment to equal opportunity and gender equality in the workplace by signing agreements that address diversity and other topics.

TotalEnergies pledged within the World Economic Forum by signing the *Closing the gender gap – a call to action*. This joint declaration is based on seven guiding principles (leadership; aspiration and goal setting; the Science, Technology, Engineering and Mathematics (STEM) pipeline; clear responsibilities; recruitment, retention and promotion policies; inclusive corporate culture; and work environment and work-life balance) and two decisive objectives: more diverse recruitment, and greater access among women to technical and management roles.

| % of women | 2022 | 2021 | 2020 |
|---|---|---|---|
| Among permanent contract hires | 42.1% | 40.3% | 41.2% |
| Among managers hires (JL ≥ 10)[a] | 40.8% | 35.1% | 35.6% |
| Among all employees | 36.3% | 35.8% | 34.8% |
| Among managers (JL ≥ 10)[a] | 31.5% | 30.2% | 29.3% |
| Among first level of management[b] | 33.6% | 31.8% | 31.0% |
| Among middle management | 28.0% | 27.0%[c] | 26.9%[c] |
| Among senior management | 23.8% | 22.6%[d] | 21.1%[d] |
| Among senior executives | 27.5% | 26.5% | 25.7% |

(a) Job level of the position according to the Hay method. JL 10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).
(b) Defined on the basis of job level.
(c) Restated 2020 and 2021 data. The percentage of women was 26.1% in 2021 and 25.6% in 2020 based on the previous calculation method which included JL 14.
(d) Restated 2020 and 2021 data. The percentage of women was 19.9% in 2021 and 18.2% in 2020 based on the previous calculation method, which did not include JL14 and senior executives.

| % of men | 2022 | 2021 | 2020 |
|---|---|---|---|
| Among permanent contract hires | 57.9% | 59.7% | 58.8% |
| Among all employees | 63.7% | 64.2% | 65.2% |

| Breakdown of workforce by gender and age group as of December 31, 2022 | < 30 years | 30 to 49 years | > 49 years |
|---|---|---|---|
| Women | 19.4% | 57.1% | 23.5% |
| Men | 16.0% | 55.1% | 28.9% |

#### The French Rixain Law aimed at accelerating economic and professional equality

In France, the law of December 24, 2021, introduced a minimum representation of each gender (30% in 2026, 40% in 2029) within two distinct groups made up of senior executives on the one hand, members of governing bodies on the other, for companies with more than 1,000 employees.

The percentage of women among Company's senior executives is 27.5% at the end of 2022. Senior executives of the Company are a category of senior managers capable of directing and managing activities at the level of the Company as a whole. This population is managed by a specific department independently of standard Human Resources processes and under the direct supervision of the General Management of the Company.

The table below presents the percentage of women among senior executives and the governing body identified at the end of 2022 for the main French subsidiary concerned.

| French subsidiary | Headcount[a] | % of women among senior executives | % of women among the governing body[b] | Governing body identified |
|---|---|---|---|---|
| TotalEnergies SE | 3,530 | 26.3% | 25.0% | Executive Committee |
| TotalEnergies Marketing Services | 1,110 | 32.4% | 42.9% | Marketing & Services Management Committee |
| TotalEnergies Raffinage Chimie | 484 | 25.0% | 62.5% | Refining & Chemicals Management Committee |
| TotalEnergies Marketing France | 1,223 | n/a[c] | 22.2% | Subsidiary Management Committee |
| TotalEnergies Raffinage France | 4,122 | n/a[c] | 62.5% | Refining & Chemicals Management Committee[d] |

(a) Headcount as of December 31, 2022, including permanent and fixed-term contracts (CDI and CDD).
(b) Calculated for all members of the body regardless of their employment contract.
(c) No Company "senior executives".
(d) No management committee within the subsidiary. TotalEnergies Raffinage France is a legal entity supporting refinery personnel without a "governing body", within the meaning of the law of December 24, 2021, other than its legal representative. The activity of TotalEnergies Raffinage is supervised by TotalEnergies Raffinage Chimie.

**In terms of compensation**, TotalEnergies has been adopting specific measures to prevent and compensate for discriminatory wage differentials in several countries. Regular checks are carried out during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility.

Since 2019, consistent with French Act 2018-771 of September 5, 2018, on the freedom to choose one's professional future, the Company has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the under-represented gender among the ten employees who received the highest compensation.

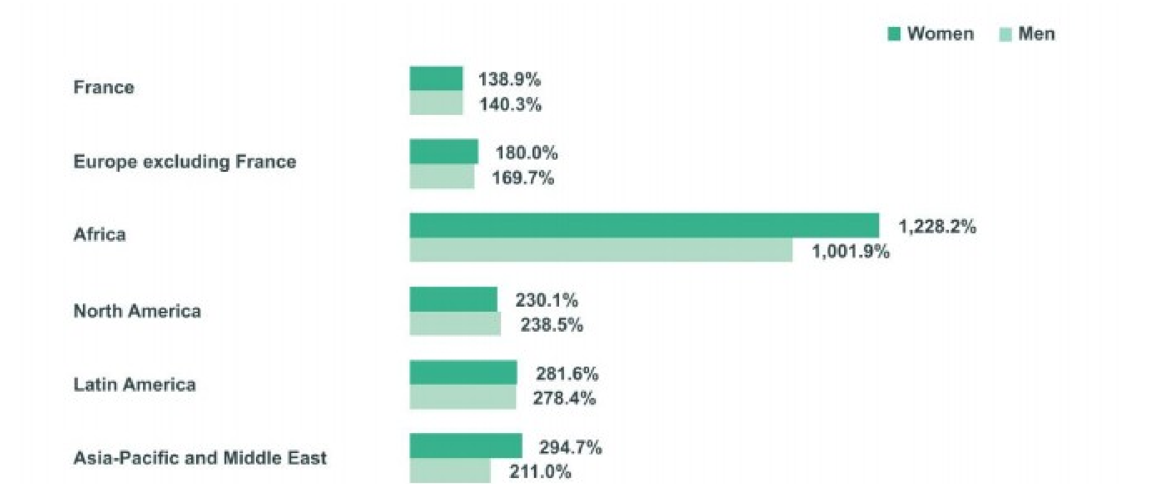
| Index[a] | 2021-2022 | 2020-2021 | 2019-2020 |
|---|---|---|---|
| Upstream/Global Services/Holding UES (AGSH) | 92/100 | 91/100 | 91/100 |
| Refining-Petrochemicals (RP) UES | 100/100 | 94/100 | 94/100 |
| Marketing & Services (MS) UES | 92/100 | 88/100 | 87/100 |

(a) Reference period N-1/N: from September 30, N-1 to September 30, N.

| Details of the 2021-2022 index | UES AGSH | UES RP | UES MS |
|---|---|---|---|
| Wage differential | 37/40 | 40/40 | 37/40 |
| Difference in the distribution of individual increases | 20/20 | 20/20 | 20/20 |
| Difference in the distribution of promotions | 15/15 | 15/15 | 15/15 |
| % of employees with a raise after returning from maternity leave | 15/15 | 15/15 | 15/15 |
| Number of women in the 10 highest earners | 5/10 | 10/10 | 5/10 |

At the global level, a verification of compliance with the minimum wage guaranteed by local legislation is also carried out on the base salary. In order to ensure equal pay for men and women, the Company plans to implement an annual review in all countries and a corrective action plan if necessary.

**Ratio of the lowest base salary by gender to the minimum salary guaranteed by local legislation, aggregated by geographical area[a]**




(a) Unweighted average, within the scope of the Compensation survey.

## MAKING MANAGEMENT MORE INTERNATIONAL

With nearly 160 nationalities in its workforce, TotalEnergies benefits from a great cultural diversity and considers it important to promote that diversity at all levels of the Company. In 2022, 83.3% of the Company's hires and 62.5% of manager hires concerned people of a nationality other than French.

The Company has set targets for progress by year-end 2025 in which:

- non-French nationals account for 45% of senior executives (they represented 37.4% in 2022),
- non-French nationals comprise 40% of senior managers (34.2% were non-French nationals in 2022).

In addition, non-French employees account for 51.4% of high-potential employees.

Several measures have been adopted to create a more international management pool, including career paths designed to create more international careers, expatriate assignments for employees of all nationalities (more than 3,000 employees representing approximately 100 nationalities are posted in about 100 countries), and orientation and personal development training organized by large regional hubs such as Houston, Johannesburg and Singapore.

| % of employees of non-French nationality | 2022 | 2021 | 2020 |
|---|---|---|---|
| Among permanent contract hires | 83.4% | 89.9% | 86.9% |
| Among manager hires (JL ≥ 10)[1] | 62.7% | 65.3% | 57.7% |
| Among all employees | 66.8% | 66.5% | 67.1% |
| Among managers (JL ≥ 10) | 57.6% | 56.7% | 56.1% |
| Among senior managers | 34.2% | 34.0% | 32.1% |
| Among senior executives | 37.4% | 36.6% | 36.3% |

| % of employees of French nationality | 2022 | 2021 | 2020 |
|---|---|---|---|
| Among permanent contract hires | 16.6% | 10.1% | 13.1% |
| Among all employees | 33.2% | 33.5% | 32.9% |

## MEASURES TO PROMOTE HIRING AND INTEGRATION OF PEOPLE WITH DISABILITIES

The Company's diversity and inclusion policy includes specific measures to promote the integration and retention of people with disabilities. TotalEnergies' Mission Handicap structure, housed within the Diversity & Inclusion department of the Company's People & Social Engagement division, is responsible for leading the disability policy with help from disability coordinators within the business segments and a network of liaisons in each entity. The Mission Handicap supports employees with disabilities. It also applies to people with sensitive medical conditions (diabetes, cancer, hypertension, asthma, HIV, etc.), to whom specific attention is paid by a working group dedicated to invisible diseases, which is led in cooperation with internal medical officers.

In **France**, TotalEnergies has given concrete proof of its commitment to hiring people with disabilities for more than 20 years by signing agreements with employee representatives.

TotalEnergies promotes employment for people with disabilities both directly, through its own hires, and indirectly through its purchases from the sheltered employment sector as part of its responsible procurement policy. The Company acts on various fronts simultaneously:

- internally, through efforts to integrate people with disabilities into the workforce, professional training, support and job retention, communication, awareness-raising actions and sessions organized for managers and the entire workforce as well as mandatory training for human resources personnel. In addition, Management Committee members are required to attend awareness-raising sessions. In 2022, a training program initially designed for future managers from France's leading universities has been deployed internally. Since its launch, 80 of the Company's managers have received the *handimanager* label, by participating in this experience to change their perspective, to understand the fundamentals of a management attentive to all and to value all talents,
- externally, through information and communications campaigns aimed at students, collaborations with recruitment agencies, participation in specialized forums, partnerships with schools and universities. As part of the partnership agreement with the "Ecole du Sens au Travail" to finance training modules, 20 new students from the "Centrale Lyon" and the "École Polytechnique" schools, who are future managers, were trained in 2022 and received the *handimanager* label. In addition, the "Duo Café" initiative, launched in 2020 to organize meetings between students from the Company's target schools and alumni employees, so that they can learn about TotalEnergies' businesses, continued in 2022.

In 2022, a new disability agreement was signed within the scope of the "socle social commun", excluding expatriates, (more than 13,000 people) and approved by DRIEETS[2] for the period 2023-2025. This agreement strengthens and improves the system in force and for the first time introduces end-of-career support measures for people with disabilities (possibility of buying back quarter-years for their pensions, additional payment for part-time work, etc.). It is based on three major priorities:

- recruitment, integration and professional support throughout the employee's career,
- job retention, the adaptation of workstations and measures to compensate for the employee's disability,
- the development of agreements and partnerships with the sheltered and supported employment sector (ESAT and EA).

Since 2019, 38 permanent contract hires have been made, out of the 40 envisaged in the previous agreement, and the target of 250 hires on work-study contracts, internships, permanent, fixed-term and temporary employment contracts was achieved. In 2022, for the first time, TotalEnergies reached the 6% rate of disabled workers (6.03%) within the scope of the "socle social commun", and confirmed, in the new agreement, its ambition to continue to progress beyond the legal threshold, within the same scope and to continue its action in favor of the indirect employment of persons with disabilities. The use of the adapted and protected employment sector for supplies and services is now included in the sustainable procurement road map.

The four jobs for Disability coordinators in the various sectors of activity, as well as the dedicated recruitment officer, provided for in the agreement signed in 2019, are now the driving force behind the Company's disability policy in the field, with the coordination of the network of Disability officers on the sites. In 2022, workstation adaptations continued at the homes of disabled employees working from home to facilitate their continued employment, in particular within the framework of the ergonomic services contract signed with the adapted company Ergosanté.

In 2022, under the term of the previous agreement, a specific budget of €450,000 was allocated to study some 50 projects promoted by disability support organizations.

TotalEnergies took an active part in the launch of the French Employment & Disability Barometer and published data on its disability policy within the "socle social commun" scope in March 2022.

In 2022, the Company made new commitments to digital accessibility by signing the "J'agis" charter for the inclusion of people with disabilities through employment in the digital professions.

(1) Job level of the position according to the Hay method. JL10 corresponds to the first level of junior manager (cadre débutant) (≥ 300 Hay points).
(2) Interdepartmental Regional Directorate for the Economy, Employment, Labor and Inclusion.

In addition, TotalEnergies supports the *Association TotalEnergies Solidarité Handicap (ATSH)*, an organization formed in 1975 by employees who have children with disabilities. ATSH provides psychological and financial support to current and retired employees of the Company and their dependents in France who are affected by disability. It currently has about 300 members.

**Internationally**, the Company aims to support employees with disabilities by going beyond the legal obligations in each country. This ambition is reflected in the signing of the International Labour Organization's (ILO) *Global Business and Disability Network Charter* in October 2018. To date, 41 subsidiaries have voluntarily signed up to the policy and set themselves goals based on the five principles identified as priorities by the Company: respect and promotion of rights, non-discriminatory policies and practices, accessibility, job retention and confidentiality. This new dynamic is reflected in the regular exchange of best practices and the supply of awareness-raising tools.

On December 5, 2022, on the occasion of the *International Day of Persons with Disabilities*, the managers of the 41 subsidiaries involved and their teams were invited to take part in a webinar with a disability expert from the ILO to discuss best practices and employee testimonials. All the best practices of TotalEnergies' subsidiaries with regard to disability have been detailed in a guide entitled the "World tour of disability", which has been distributed to the entire disability network of the international subsidiaries and is available on the Company's intranet site. For example, the United Kingdom and the United States have taken preventive actions regarding mental health, with a close focus on psychic health, dedicated training and easier access to specialists. In Africa and Asia, subsidiaries have entered educational partnerships with schools and universities and are making their premises more accessible.

In addition, as part of the Manifesto for the Inclusion of Persons with Disabilities in economic life, which was signed in 2018, TotalEnergies co-hosted a working group in 2022 on the internationalization of the disability policies of companies and organized an event that brought together the companies that have signed the Manifesto and are committed to proceeding with these deployments in their subsidiaries abroad.

## A COMMITMENT TO HELP YOUNG PEOPLE ENTER THE WORKFORCE

TotalEnergies is committed to contributing to the professional integration of young people and thus strengthening their employability. Considering it essential to address this issue as early as possible in the educational process to maximize its impact, targeted actions are put in place and adapted to the specificity of the country contexts where they are deployed.

Since 2018 in France, the Company has dedicated 50% of its last-year middle-school internships to young people from priority neighborhoods. Over the 2021-2022 school year, TotalEnergies has expanded its system allowing more than 1,000 young people from different social backgrounds to discover the business world, including 85% of middle school students from priority neighborhoods.

In addition, TotalEnergies is committed to increasing its contribution to the employment of work-study students through a plan initiated in 2016, which has resulted in the recruitment of nearly 10,000 young people. The commitment, renewed each year, to recruiting 5% of our workforce in France as work-study students is now part of the Company's human resources policy. With an initial 2022 target of 1,724 recruitments[(1)], the Company achieved 1,934 during the year. Since 2017, the Company has participated in and obtained the *HappyTrainees* label each year, which measures the recommendation rate given by its interns and work-study students. Six themes are addressed: career progression, stimulating environment, management, motivation, pride and fun. In 2022, the Company obtained an overall score of 4.01 out of 5 and a recommendation rate of 86.9%. For this label, 1,753 young people were invited to respond.

In 2022, the Company has maintained its recruitment system aimed at achieving greater equality of opportunity. The partnership with the Mozaïk Foundation, a major player in the economic inclusion of talent from diverse backgrounds, makes all of TotalEnergies' job offers accessible to young people in the regions on its *DiversifiezVosTalents* platform. In addition, the Comany also contribute to the French government's *1Jeune1Solution* initiative by regularly posting internship and work-study opportunities on the platform. Finally, as part of the *Collectif d'Entreprises pour une Economie plus Inclusive*, it has committed to mentoring 300 young people through the *Action!* Program.

With regard to the recruitment of young people with disabilities, TotalEnergies has hired 40 young people on work-study programs and 17 interns by 2022 within the "socle social commun" scope, in line with the commitments made in the previous disability agreement.

In the Africa Marketing & Services Department, the *Young graduate* program has been in existence since 2014 and offers about 80 young African graduates aged up to 26 an 18-month professional placement each year. The program is divided into two phases: a 6-month work experience at the subsidiary in the participant's home country, followed by a 12-month assignment abroad. Since 2014, more than 550 young people have taken this opportunity to improve their employability.

In October 2022, OneTech welcomed the first class of the OneTech Graduate Program. This career-accelerating program offers 60 talented young people of 23 nationalities the opportunity to gain initial experience in all areas of energy, particularly renewable energy (solar, wind, hydrogen, biogas and electricity). This two-year program is based on three successive 8-month assignments, at least one of which must be in a Research and Development center, to create a group of young multi-energy talents.

"Volontariat International en Entreprise" (VIE) is a system that promotes the export of the know-how of French companies abroad. This program completes the curriculum for young French people and nationals of the European Economic Area, aged 18 to 28, by allowing them to acquire international experience for a maximum of 24 months. The system, in force in the Company since 2002, has enabled more than 2,200 young graduates to benefit from this program.

The Company's international scholarship programs help promote French higher education worldwideand develop the skills of students from host countries. International scholarship recipients, selected in their home countries by the TotalEnergies subsidiary concerned, enroll in multi-year academic programs in France, from the bachelor's to the doctorate level in a wide variety of fields of study. In 2022, TotalEnergies funded and supported 188 scholarship students from 13 different countries (Angola, Mozambique, Azerbaijan, Rwanda, Brazil, Oman, etc.).

(1) On a scope of subsidiaries representing a workforce of 31,319 in France.

### OTHER MEASURES TO PROMOTE INCLUSION

The Company promotes an inclusive corporate culture that allows everyone to develop their potential. It excludes all forms of discrimination related to national, ethic or social origins, gender, sexual orientation or identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group. The theme of the 2022 Business Ethics Day was "respect for others", a fundamental value of the Company to promote inclusion.

In France, TotalEnergies has been a signatory to the LGBT (lesbian, gay, bisexual and transgender) commitment charter since 2014. Created by an organization called *l'Autre Cercle*, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity. Awareness-raising actions on the topics of sexual orientation and gender identity were taken with employees. In 2022, an Executive Committee awareness meeting on LGBTQIA+ visibility in the workplace led to the decision to renew the signature of the charter in 2023 to confirm its commitment.

TotalEnergies strives to promote an inclusive corporate culture and an environment conducive to the expression and development of the potential of all. To this end, Human Resources policies have been reviewed to ensure that the inclusive approach is taken into account. The Company's parenting policy has been amended to adopt a neutral family concept that takes into account the diversity of existing family structures (refer to point 5.6.3.2).

To provide clear answers to questions employees may have about matters relating to religion at work, and to encourage tolerance for the beliefs of others within a framework of respect for differences, TotalEnergies has developed The Practical Guide to Dealing with Religious Questions in the Company. The guide, which has been available on the Company's intranet site since March 2017, offers keys to understanding different beliefs so that employees can more readily acknowledge those beliefs in their day-to-day activities. Initially published in French and in English, the guide has since been translated into eight other languages. It is routinely provided to participants at training sessions on human rights conducted within the Company. It is also distributed on *Business Ethics Day*, which is marked each year in all of the Company's entities.

## 5.6.3.2 CONTRIBUTE TO IMPROVED QUALITY OF LIFE AT WORK AND THE WELL-BEING OF EMPLOYEES

The Company is committed to the well-being of its employees. It has decided to broaden its ambition of making the Company a good place to work together, by developing in 2023 a ***TotalEnergies Care*** program based on measures and commitments relating to physical and mental health, social protection, the work environment, ways of working and the family sphere.

| | | |
|---|---|---|
| **Health**<br>Preserve the physical and mental health of all employees worldwide | Provide medical follow-up to all employees exposed to an occupational risk that may have harmful effects on their physical and mental health | Refer to point 5.3.4 |
| | Propose to employees a health check at least every two years unless specific local regulations or contexts | |
| | Deploy a global policy for the prevention of Psychosocial Risks to protect the mental health of employees | |
| | **Local initiatives:**<br>Conduct vaccination and disease prevention campaigns (COVID-19, AIDS, cancer, malaria, etc.) for employees, their families, and local communities | |
| **Social protection**<br>Ensure a living wage and quality social protection for all employees, regardless of their location | Ensure all employees a direct remuneration above the living wage of the country or region in which they work | Refer to point 5.6.1.2 |
| | Set up a health insurance plan or propose a complementary company health plan | |
| | Set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary | |
| **Working environment and ways of working**<br>Promote a flexible, modern and attractive work organization for employees while preserving collective efficiency in a safe working environment | Generalize and encourage the use of flexible working hours and teleworking by establishing clear rules in these areas | Refer to point 5.6.3.2 |
| | Provide training and practical guides for a quick start in digital work environments | |
| | Conduct information campaigns or organize events related to the well-being of employees | |
| | Conduct awareness-raising campaigns on work-life balance | |
| | **Local initiatives:**<br>Deploy user-friendly spaces and Bonjour stores on our sites | |
| **Family sphere**<br>Give employees the opportunity to take care of their families | Guarantee a minimum of 14 weeks of childcare leave for the first parent and 2 weeks for the second parent with 100% retention of their basic salary (subject to more protective local measures) | Refer to point 5.6.3.2 |
| | Commit to neutralizing absences for childcare leave by granting the first parent to return from leave an increase equal to the average of individual increases received over the last three years | |

The challenges of work organization are manifold, depending on the regions of the world where the Company operates, and according to the local legislation in force. The TotalEnergies entities set up programs designed to meet the specific needs of work organization and ensure, as far as possible, that a work-life balance is promoted. Depending on the segment, specific work arrangements are implemented, such as shift schedules[1] and rotating schedules[2]. Most shift workers are employed in Refining & Chemicals, Marketing & Services and Integrated Gas, Renewables & Power, while rotating workers are mainly in Exploration & Production. The average work week is determined in accordance with applicable local laws and limits set by International Labour Organization (ILO) conventions.

With the aim of building a company that is a good place to work, TotalEnergies has, for several years, spread and encouraged the use of flexible working hours and home-working worldwide, with the ambition of taking action in favor of a better quality of life at work.

| | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| % of companies offering the option of regular remote working | 61.4% | 49.3% | 44.9% |
| % of employees choosing remote working when given the option | 19.7% | 17.3% | 13.3% |
| % of companies that have implemented flextime | 81.8% | 80.6% | 77.2% |

Over the past few years, regular remote working has been gradually introduced within the Company. Moreover, in 2022, 83.3% of companies offered occasional remote working.

Among other programs designed to foster a better work-life balance, employees are also choosing voluntary part-time work.

| | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| % of companies offering voluntary part-time work | 53.8% | 53.0% | 55.1% |

France, the Netherlands and Belgium have the largest number of voluntary part-time workers.

In order to explore new ways of working in a post-pandemic context, TotalEnergies Global Services launched a *New Ways of Working* pilot in France and Belgium to build a framework of employment in a hybrid mode that combines flexibility, collective performance and personal fulfillment, while maintaining social ties. Employees and managers can thus test remote working up to 10 days a month, by scheduling their home-working days in advance in a dedicated tool that provides access to the work schedule of their colleagues.

In 2023, the Company continued to evolve towards a more modern and attractive working environment for employees. For example, a proposal was made to the Company's subsidiaries to introduce a "green Friday", which consists of no longer holding the working meetings every other Friday in order to free up time for individual work.

As part of the *Better Together* program, TotalEnergies has taken various measures on the development of a safe, modern and pleasant working environment, with ergonomic workstations. Welcoming areas have been created and *"Bonjour"* stores, based on the stores in the network of service stations, are gradually being opened on the TotalEnergies sites with more than 100 employees. With its new headquarters project, *The Link*, project ambassadors have been appointed and are tasked with reflecting on future needs and new ways of working. *Learning expeditions* are being organized as part of this project to discover the layout of the premises on other sites and then identifying future needs.

Tools are made available to managers and employees to support them in their approach to these new ways of working. They now have digital tools to facilitate remote working, as well as a range of training courses on the Company's training platform that are specifically adapted to the management of these new ways of working, both in office automation tools, personal development and working time management.

Among the initiatives launched in 2022, a week dedicated to quality of life at work was organized comprising three themes: working conditions, well-being and conviviality at work and the work-life balance. Nearly 17,000 employees in several countries were invited to participate on a platform dedicated to workshops, conferences and sports sessions accessible both in person and remotely. In 2022, 90.2% of subsidiaries conducted information campaigns or organized events relating to the well-being of employees and 78%, actions to raise awareness of the balance between professional and private life.

In 2022, the Company's parental policy was amended to adopt a neutral concept of families that takes into account the diversity of existing family structures. The concepts of a "first parent" and a "second parent" now enable all parents, regardless of the composition of their families, to benefit from leave for the birth or the arrival of a child. TotalEnergies guarantees paid childcare leave of at least 14 weeks for the first parent and at least 2 weeks for the second parent, with 100% retention of their basic salary. In addition, TotalEnergies guarantees to the first parent returning from this leave an increase equal to the average of the individual increases they have received over the past three years. The implementation of this new policy, in accordance with applicable legal provisions and any cultural barriers, is planned for 2023. By the end of 2022, 86.4% of subsidiaries were already offering paid maternity leave of 14 weeks or more and 73.5% guaranteed the payment of 100% of the basic salary. In 2022, 950 employees benefited from these conditions as part of their maternity leave, and among those who returned during the year, 73.7% benefited from an increase equal to the average of individual increases awarded over the past three years. Specific conditions are offered during the breastfeeding period in 53.8% of subsidiaries. The systematization of these conditions is planned in the deployment of the new policy. In addition, childcare solutions are offered by certain subsidiaries around the world.

In addition to parental leave, and to help employees manage their work-life balance, the Company offers personal leave at each important stage of life for family events (marriage, death, sick child, etc.) or personal assistance that is available in 65.9% of the subsidiaries. Other types of unpaid leave are also offered to support employees in new career paths (international voluntary missions, following spouses, setting up a company, etc.).

In addition, as part of its Health policy, the Company has implemented a policy to prevent mental health risks, the aim of which is to protect the mental health of employees and has developed a global program for the management of all exposed employees, wherever they are in the world (refer to point 5.3.4). Each entity must guarantee the implementation of a mental health protection system, using the system proposed by the Company or an equivalent local system. A specific deployment adapted to the various populations is being implemented to facilitate the adoption and appropriation of the system by all. Trade unions and workers' representatives are informed of this policy and have been involved in the development of the prevention system.

(1) In which employees maintain continuous operations, with relays between teams to keep production going (in two or three 8-hour shifts), e.g., in plants or refineries.
(2) In which employees conduct their work at a location (town or worksite) far from their place of residence and alternate between extended periods of work (at their assigned worksite) and rest periods at home.

In this context, the Company offers a listening and support service that is available to all employees with psychologists trained to advise them precisely about their concerns. Managers are made aware of their role in preventing these risks on a daily basis and the impact of the working environment on the well-being of their employees. The creation of good working conditions for employees helps to prevent risks to mental health and helps those who are already suffering from them to thrive at work. The Company's inclusive culture, its responsible compensation and employee savings development policy and social dialogue also contribute to this.

Finally, as part of a global initiative to prevent and manage employee absenteeism, the medical absenteeism rate is an indicator monitored as part of the WHRS:

| | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| Absenteeism rate for medical reasons | 4.6% | 4.3% | 4.1% |

The change in the rate of medical absenteeism rate is mainly attributable to absences of less than one month, particularly in connection with COVID-19.

TotalEnergies' success as a responsible company is played out all along its value chain, and the Company is convinced of the importance of working with suppliers that respect human rights and take care of their employees. In keeping with the Fundamental Principles of Purchasing, based on its Code of Conduct, TotalEnergies also expects its suppliers to respect, and to ensure that their own suppliers and subcontractors respect, a maximum number of working hours, rest time and suitable parental leave.

### 5.6.3.3 PROMOTING SOCIAL DIALOGUE

Social dialogue is a key component of the Company. It includes all types of negotiations, consultations or exchanges of information among the management of the TotalEnergies entities, employees and their representatives about economic and workplace issues and concerns relating to company life. The topics addressed in this social dialogue may vary according to each subsidiary, but some are shared concerns across the Company such as health and safety, work hours, compensation, training and equal opportunity.

The Company is careful to conduct this dialogue at both the local level and at headquarters or centrally, through its participation in company bodies and its negotiation of agreements.

Among the numerous stakeholders with which TotalEnergies maintains a regular dialogue, the Company's employees and their representatives have a special position and role, particularly in discussions with management teams. In countries where employee representation is not required by law, the TotalEnergies companies strive to establish such representation. As a result, majority elected employee representatives are present in most TotalEnergies companies.

| | 2022 WHRS | 2021 WHRS | 2020 WHRS |
|---|---|---|---|
| Percentage of employees with labor union representation and/or employee representation | 91.8% | 90.8% | 91.7% |
| Percentage of companies with labor union representation | 77.3% | 73.1% | 71.7% |
| Percentage of companies with employee representation | 84.1% | 81.3% | 80.3% |
| Percentage of employees covered by a collective bargaining agreement | 73.6% | 72.6% | 71.9% |
| Number of active agreements signed with employee representatives worldwide | 330 | 347 | 281 |
| *including, in France[(a)]* | *189* | *202* | *147* |

(a) Some agreements cover several companies (e.g., the agreements in the units of economic and employee interest (UESs) and agreements for groups of companies).

Moreover, where local laws provide few protections for freedom of organization and the right to collective bargaining, the subsidiary's management is reminded that it must provide alternatives. These may include allowing employees to designate representatives, organizing regular meetings between those representatives and management, providing meeting rooms where employees can gather and altering work schedules accordingly. Those best practices are reviewed in an e-learning course on human rights in the workplace, offered within the Company since 2019.

Freedom of association and collective bargaining are two of the subjects studied in its analysis of the risks of human rights abuses, and in particular human rights in the workplace.

Through the global agreement and the Fundamental Principles of Purchasing, TotalEnergies also asks its suppliers to respect freedom of expression, association and collective bargaining and, in countries where this right is restricted, to ensure that employees have the right to participate in a dialogue concerning their collective work situation. As part of the evaluation of its service providers and suppliers, compliance with these commitments is monitored.

The TotalEnergies European Works Council serves, on a European scale, as a forum for providing information and regular exchanging views about the Company's strategy, its workplace, economic and financial situation, as well as on matters relating to sustainable development, environmental and social responsibility and, obviously, safety. It is consulted for significant proposed organizational changes concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies.

In 2022, social dialogue at European level remained sustained. Members had the opportunity to meet 25 times on a variety of key topics.

This year, members were made aware of all of the Company's new energies and their challenges (offshore wind, solar, biogas, gas-based power generation plants) through discussions during various meetings (strategy committee, sustainable development commission, safety seminar). Members also benefited from details of the Company's hydrogen ambitions as part of its strategic expertise.

In addition, the members had the opportunity to participate in several learning expeditions to gain a more concrete understanding of the Company's strategy by traveling in the field and meeting the dedicated teams. The members visited a multi-energy station and the Company's largest solar power plant in France in Giens and the saw the transformation of the Grandpuits platform.

European social dialogue has also resulted in discussions with the members on issues related to the environment and sustainable development. The members participated in two dedicated workshops on sustainable development goals and were also able to discuss plastic recycling and the Tilenga and Eacop projects in Uganda.

Social dialogue in Europe and in France saw the continued involvement of employee representatives in major projects that are structuring the transition of the Company.

- On the creation of OneTech, which aims to concentrate skills and technical expertise in support of innovation and new growing energies, in continuation of the information and consultations in 2021, the European Works Council was informed at the beginning of the year of the implementation of the new organization and at the end of the year, of its roadmap.
- On the *Transforming with our people* project, which aims to achieve a just transition for the Company's employees and on the approach to building the skills map that will define the bridges between the current business activities and the renewable energy and electricity business activities, staff representatives were informed of the progress of the mapping process and were involved in a pilot training program deployed throughout the Company.
- As part of the new organization in support of the Company's transformation, notably aimed at adapting the organization of the business segments and the Holding Company in accordance with the commitments of the redundancy plan, negotiated within the scope of the "socle social commun", regular monitoring is carried out with the trade unions and employee representatives of the hires and the business segments concerned, in order to contribute to the renewal of the skills needed to meet the challenges of the Company's transformation.

In 2015, TotalEnergies signed a four-year global agreement with IndustriALL Global Union[1] to promote human rights at work, diversity, health, safety at work and the participation of employees and their representatives in social dialogue. This founding agreement of global social commitments continues to be applied.

As a responsible employer, TotalEnergies manages organizational changes in a responsible manner. Among the commitments in this agreement, the Company has committed to social support for organizational changes that consists of informing employee representatives in advance of planned changes, as well as making sure that subsidiaries take social measures when organizational changes occur, which must be among the best practices of companies in the business segment of the country concerned.

In line with the commitments made in this global agreement, TotalEnergies' approach consists of involving the main stakeholders.

For example, the conversion of the Grandpuits refinery into a zero-oil platform for biofuels and bioplastics will reduce the workforce from 400 to 250 people, without any layoffs or forced mobility. At the end of 2022, just over 134 people have expressed their desire to relocate, and 98 transfers have already been completed. In addition, 82 early retirements are expected between 2021 and 2027. Finally, 15 additional jobs will be created on Grandpuits site in a packaging unit for the bioplastics unit.

In addition to internal jobs, TotalEnergies is also concerned about external jobs. The projects launched as part of this industrial investment of more than €500 million are expected to create up to 1,000 jobs during the three-year construction of the new units.

Partner companies and their employees are supported by the TotalEnergies Développement Régional subsidiary, with the assistance of the regional Chamber of Commerce and Industry.

In 2022, two new agreements were signed to speed up the process to transform Grandpuits:

- On September 26, TotalEnergies and SARIA signed an agreement to develop sustainable aviation fuel production on the Grandpuits platform.
- On November 22, TotalEnergies and Air Liquide announced their partnership to produce and promote renewable and low-carbon hydrogen on the Grandpuits zero-crude platform.

Site staff and central representatives in the Refining-Petrochemicals UES were involved in the announcement of these projects. The members of the European Committee also had the opportunity to visit the site, as part of a learning expedition to discover the challenges facing the conversion project and the future projects aimed at supporting the Company's transition.

In addition to this example, in 2022, 36 subsidiaries worldwide underwent organizational changes that could have an impact on employees, and 33 (91.7%) of them took measures to support employees.

They include:

- 21 subsidiaries that have taken supporting measures for retirement or early retirement. This represents 63.6% of the subsidiaries concerned,
- 33 subsidiaries resorted to redeployment or mobility as supporting measures. This represents 100% of the subsidiaries concerned,
- 17 subsidiaries introduced an outplacement program. This represents 51.5% of the subsidiaries concerned,
- 21 subsidiaries offered assistance for training. This represents 63.6% of the subsidiaries concerned.

In December 2017, TotalEnergies also joined the worldwide Global Deal initiative, a multiparty partnership that aims to encourage governments, businesses, unions and other organizations to make concrete commitments to promoting employee relations on all levels and to proposing concrete solutions that reconcile economic performance and social progress. The Global Deal promotes the idea that effective social dialogue can contribute to decent work and quality jobs and, as a consequence, greater equality and inclusive growth, from which workers, companies and civil society benefit. In 2022, TotalEnergies continued to share its best practices with member companies of Global Deal by taking part in a working group on the duty of due diligence.

As a company that listens to its employees, TotalEnergies regularly involves them in participatory processes. By way of example, a Company-wide participatory initiative was launched in 2022, in the form of two sessions of workshops and a collaborative platform, to involve all employees in the achievement of TotalEnergies' ambitions in terms of sustainable development.

In 2022, TotalEnergies conducted an internal opinion survey of employees (TotalEnergies Survey) in order to gather their views and expectations regarding their professional situation and their perception of the Company, on a local or Company-wide level, on various topics (values, commitment, the Company's ambition, diversity and inclusion, management, talent development, working conditions, etc.). The results of this survey of 85,640 employees in 122 countries, revealed a 78% commitment rate, and 85% of employees who are proud to work for TotalEnergies. The results were published in all the entities concerned and action plans were implemented by 90.4% of the surveyed companies. The Executive Committee decided that employee engagement will be measured once a year, starting in 2022.

(1) An international union federation that represents more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.

# 5.7 Actions to respect human rights

The main challenges associated with the effects of the Company's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", *i.e.*, the human rights at risk of the most severe negative impact through the Company's activities or business relationships.

On this basis, the Company identified six salient risks subdivided across three key areas:

- **human rights in the workplace** of TotalEnergies' employees as well as of the employees of its suppliers and other business partners:
  - forced labor and child labor,
  - discrimination,
  - just and favorable conditions of work and safety.
- **human rights and local communities**:
  - access to land,
  - the right to health and an adequate standard of living.
- respect for **human rights in security-related activities:**
  - the risk of misuse of force.

## STRONG COMMITMENTS

TotalEnergies' human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Company's actions.

TotalEnergies is committed in particular to respecting internationally recognized human rights and standards, wherever the Company operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).

In 2016, the Company published a Human Rights Briefing Paper in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework, which is available on its website. TotalEnergies was then the first company in the oil and gas industry to do this.

## A DEDICATED ORGANIZATION

The organization in charge of human rights is structured into three levels. First, the Human Rights department in the Sustainability & Climate Division, which in turn reports to the President, Strategy & Sustainability, who sits on the Executive Committee, coordinates the analysis of the Company's human rights risks, supports operational teams and supervises the actions to promote respect for human rights, in close collaboration with the Ethics Committee and in accordance with the Company's Code of Conduct.

The Company's human rights roadmap, developed with the various business segments and concerned divisions, is regularly presented to the Executive Committee in order to support the ongoing efforts to implement the Code of Conduct and to respect human rights.

The Human Rights Steering Committee, led by the Human Rights Department, monitors the implementation of this roadmap on the strategic level for the Company and meets four times a year. It is chaired by the Senior Vice President of Sustainability & Climate. The committee includes representatives of each business segment and of the main functional divisions that have a role related to human rights.

The Ethics Committee, on which representatives of all TotalEnergies' business segments sit, plays a key role of listening and support. Employees, but also people from outside the Company, can contact the committee at the address ethics@totalenergies.com. The Committee protects the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The Chairwoman of the Ethics Committee presents an annual report on the Committee's ethics-related activities to the Governance and Ethics Committee of the Board of Directors.

In 2022, the Ethics Committee received about 150 alerts (internal, external, anonymous) regarding compliance with the Code of Conduct, of which more than 60% were about questions related to Human Resources.

All alerts received are addressed and, when necessary, recommendations are made in order to lead to the implementation of corrective actions.

Secondly, each business segment, as well as the TotalEnergies Global Procurement Division, which is in charge of the responsible procurement program, have appointed a human rights representative who coordinates this subject in its scope and cooperates with the Human Rights Department, with which it meets each month in order to address ongoing human rights issues. Monthly reviews also take place between the Human Rights Department and the main functional divisions at head office regarding human rights. In 2022, the Marketing & Services segment also set up a Human Rights Committee, chaired by the Senior Vice President Africa and composed of representatives from regions where the Marketing & Services segment operates (Europe, Americas, Africa, Asia-Pacific/Middle East). The main task of this Committee is to monitor the implementation Human Rights roadmap of the Marketing & Services segment.

Lastly, this dedicated organization is supported by a network of human rights correspondents based in the countries where the Company operates, and in particular the network of ethics officers, as well as the persons in the local subsidiaries in charge of the health, safety and the environment and the human resources functions, plus certain subsidiaries managing directors. These human rights correspondents, who are located as close to the operations as possible, are in charge of promoting the values set out in the Code of Conduct among employees working at subsidiaries and ensuring that the Company's commitments are correctly implemented by local stakeholders.

## AWARENESS-RAISING AND TRAINING

In order to disseminate the Company's commitments, TotalEnergies raises its employees' awareness via internal communication channels such as intranet sites or events such as the *Business Ethics Day*, which is held each year (headquarters and subsidiaries). In 2022, *Business Ethics Day* was held on December 8. Respect for others was the theme chosen to reinforce the culture of dialogue within the Company. A discussion accessible to employees was organized with the President Refining & Chemicals. Interviews on this topic were also organized with the Chairwoman of the Ethics Committee, the Chief Compliance Officer and the Senior Vice President of Human Rights.

In addition to the Code of Conduct, the Company also publishes a Human Rights Guide that is made available to its employees and the stakeholders. This guide specifies the behaviors to be adopted in the activities and relationships with stakeholders. TotalEnergies also has a practical guide to dealing with religious questions within the Company. These guides are available on the intranet site and are distributed at the various training courses and during the *Business Ethics Day*.

In addition to the Ethics training, which is mandatory for all Company employees, a Human Rights training plan, developed in 2020, aims to promote the development of a culture of respect for human rights within the Company, to better manage the associated risks, and to upskill all employees, so that they become agents of change in the long term. This plan is targeted at the following priority populations:

- the most influential categories (such as *Country Chairs*, Project Managers and *Asset Managers* in high risks countries and projects);
- the categories most exposed to human rights risks or whose actions may have potentially negative impacts on human rights (such as service station managers within the Maketing & Services segment or *Community Liaison Officers (CLOs)* in the Exploration & Production segment).

As part of this plan, several training sessions were organized in 2022.

**For targeted categories**

More than 2,050 employees belonging to the priority categories were trained in face-to-face training sessions in 2022.

- In the Marketing & Services segment,
  - more than 300 employees were trained in the respect of human rights in the workplace. These employees include members of the Management Committees, as well as other priority categories of employees (Retail Managers, Territory Managers and station managers) in the subsidiaries in Tanzania (32), Zimbabwe (27), the United Arab Emirates (Dubai, 60), Singapore (73), the Dominican Republic (86) and Jamaica (24),
  - 107 managers were trained in the respect of human rights during seminars for the African regions (French- and English-speaking) and for the Americas,
  - 250 network sector managers and 300 service station managers were also trained in human rights. The awareness of the directors, managers and trainers in the network has also been raised.
- In the Exploration & Production segment, nearly 370 employees were trained in the respect of human rights, namely:
  - 12 senior executives in the Africa division,
  - the Management Committees and certain priority categories of employees of the subsidiaries Total Austral in Argentina (273), TotalEnergies EP United Arab Emirates (60) and TotalEnergies Gas & Power Asia Private Limited in Singapore (25) also followed training in human rights during the GoodCorporation assessments or human rights awareness campaigns that were rolled out in these subsidiaries throughout the year.
- In the Integrated Gas, Renewables & Power segment, nearly 200 employees were trained in the respect of human rights, including the Management Committees and certain priority populations of subsidiaries in the United Arab Emirates and Singapore, and at the Saft Groupe site in Bangalore, India.
- In the Refining & Chemicals segment, nearly 230 employees were trained in the respect of human rights, including Hutchinson's Management Committee and the Management Committees and certain priority populations of the subsidiaries in Mexico (135, on the Ensenada site), Tunisia (31, on the Sousse site) and Romania (62, on the Brasov site), with a focus on the respect for human rights in the workplace.
- Finally, at TotalEnergies Global Procurement, around 300 employees, including buyers covering all geographical areas, were trained remotely.

Training in ethics and human rights, which is mandatory for newly appointed executives, was followed by 11 new executives in 2022.

**For all employees**

The online module on human rights in the workplace with a focus on respecting the ILO's core conventions, which has been accessible to all employees since 2019 in all countries, continued to be deployed in the countries where TotalEnergies operates. It is available in five languages and around 35,500 employees have followed it to date.

In addition, representatives of the Human Rights department regularly participate in external events with other companies and institutional players to share experiences and best practices in this area.

## ASSESSMENTS

In addition to the audits and assistance missions carried out by the Audit and Internal Control Division, which cover certain human rights-related issues, the ethics and human rights-related practices of TotalEnergies' entities are regularly assessed by independent third parties and qualified experts.

The entities are identified in particular according to the level of the risk of human rights violations in each country, the number of alerts received the previous year and the date of the subsidiary's last assessment. These assessments help to identify best practices, share them in the Company and identify areas for improvement. Knowledge and appropriation of the Code of Conduct are tested and reinforced by Ethics and human rights awareness-raising sessions. Employees are encouraged to voice their ethical concerns in a confidential manner and report behaviors potentially contrary to the Code of Conduct. These assessments confirmed that the Code of Conduct has been taken on board by employees.

The ethics and human rights assessments are systematically followed up by action plans within 12 months.

The British company GoodCorporation has assessed almost 150 entities since 2002 with regard to the principles and values enshrined in the Code of Conduct.

In 2022, five ethics and human rights assessments were conducted. They involved 5 subsidiaries, totaling approximately 2,600 employees in Argentina, Mexico, Qatar and India. These assessments confirmed that the Code of Conduct has been taken on board by employees.

The follow-up of the action plan put in place further to the assessments in 2020 and 2021 in the subsidiary in Kenya and in France (in Pau) was also carried out in 2022. It is planned to follow up the action plan concerning the subsidiary in Poland in 2023.

In addition, TotalEnergies Global Procurement (TGP) is rolling out a complete supplier engagement and qualification process (refer to point 5.10 of this chapter), which includes an ethics and human rights dimension. A system for the assessment of suppliers by a third-party expert has also been set up on the basis of criteria that measure respect for human rights.

Standalone human rights impact assessments may also be conducted in addition to the environmental and societal impact assessments in high-risk areas or conflict zones with the support of independent experts. For example, regarding the Tilenga and EACOP projects, in order to address the potential impact of the projects on human rights, TotalEnergies launched in 2016 a human rights risk and impact assessment through societal and environmental studies. Those studies were approved by the authorities in 2019 for Tilenga and the Tanzanian part of EACOP, and in 2021 for its Ugandan part. Based on the recommendations of these reports, TotalEnergies decided to carry out specific human rights impact assessments in parallel with the approval process for societal and environmental impact assessments. This specific human rights impact assessments of the EACOP project was published in September 2018. This specific human rights impact assessments of the Tilenga project was published in July 2022. In addition, as part of the Mozambique LNG project, an update of the human rights impact assessment by LKL International Consulting Inc. was launched in December 2022.

## 5.7.1 Respect for human rights in the workplace

The prohibition of forced and child labor, non-discrimination, just and favorable conditions of work, and safety, all form part of the principles set out in the Code of Conduct and are developed in TotalEnergies' Human Rights Guide and in the Human Rights Briefing Paper.

TotalEnergies' commitment to human rights in the workplace was demonstrated, in particular, by the signature of various agreements, such as the one concluded in 2015 with IndustriALL Global Union[(1)] for 4 years, regarding the promotion of human rights in the workplace, diversity, health, safety at work and the participation of employees and their representatives in social dialogue. This founding agreement of worldwide social commitments continues to be applied.

In 2021, TotalEnergies initiated a process to assess any discrepancies between the direct salary and the **living wage**[(2)] in all its subsidiaries[(3)]. The result of the studies carried out show that, by the end of 2022, the Company had reached the target it had set itself, because 100% of employees received a direct salary that exceeds the living wage in the country or region where they work.

The "human rights in the workplace" e-learning course also raises employee awareness about upholding these rights and the Company's zero-tolerance policy concerning forced labor and child labor.

### IN ITS ACTIVITIES

TotalEnergies cares about the working conditions of its employees which are governed by the Company's Human Resources policy (refer to point 5.6 of this chapter).

TotalEnergies promotes an inclusive corporate culture that allows everyone to develop their potential. It rejects all forms of discrimination related to origin, gender, sexual orientation or identity, disability, age or affiliation with a political, labor or religious organization, or membership in a minority group (refer to point 5.6 of this chapter, in particular for the targets set by the Company in terms of gender diversity and internationalization).

For many years, TotalEnergies has developed a non-discrimination policy with regard to people with disabilities that focuses on issues related to integration into working life. This policy has resulted in dedicated hiring practices and the promotion of diversity and the advantages it offers for the Company. These issues are coordinated for the entire Company by *Mission Handicap* in the People & Social Engagement department (refer to point 5.6.3.1 of this chapter).

In France, TotalEnergies has been a signatory to the LGBT (lesbian, gay, bisexual and transgender) Charter since 2014. Created by an organization called *L'Autre Cercle*, the charter provides a framework for combating workplace discrimination in France based on an individual's sexual orientation or gender identity. Awareness-raising initiatives on the subjects of sexual orientation and gender identity were taken with employees and the Executive Committee, which decided to sign the charter again in 2023 to renew its commitment.

In 2017, TotalEnergies published a Practical guide to dealing with religious questions within the Company in order to provide practical solutions to the questions raised by the Company's employees and managers worldwide. It draws on the experiences of the business segments in various countries and encourages dialogue, respect and listening as a way to find solutions suited to the local context. Many internal and external experts helped draft this document, including representatives of various religious communities. This guide is available in 10 languages and on the intranet site.

TotalEnergies also implements occupational health and safety standards that aim to promote safe and fair working conditions (refer to point 5.3 of this chapter).

In addition to the Company's reporting and internal control system, the working conditions of TotalEnergies' employees are assessed by GoodCorporation, an independent third party.

**The example of Grandpuits**

As part of the *Energy for Just Transition* initiative, led by two organizations from civil society, BSR and B-Team, which met in London in September 2022, the project to convert the Grandpuits site was presented to representatives of the International Labour Organization (ILO) and the International Trade Union Confederation (ITUC). Participants were able to discuss the engagement approach of both internal and external stakeholders, from public debates, to employee training, in order to maintain employment on the site in jobs related to biofuels or renewable energies.

(1) International union federation representing more than 50 million employees in the energy, mining, manufacturing and industrial sectors in 140 countries.
(2) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(3) It applies to the so called "périmètre de gestion" *i.e.*, all subsidiaries controlled at more than 50%.

The Marketing & Services segment promotes the assessment of the working conditions of employees of service station managers with the Company's brands. Between 2016 and 2017, a first baseline study of a group of 22 subsidiaries on different continents was conducted. On the basis of the recommendations identified to improve service station managers' awareness of the Code of Conduct principles and of the fundamental Conventions of the ILO, Marketing & Services has adapted its online training in relation to human rights in the workplace and observance of the ILO's core conventions to managers' specific needs in particular.

In 2022, 50 service stations in five countries (Democratic Republic of Congo, Tanzania, Cambodia, Zimbabwe, Jamaica) were the subject of an assessment of the respect for human rights at work, led by a third party. Awareness-raising, recommendations and proposals of actions were formulated at the end of each assessment. In addition, in 2022, Marketing & Services continued to implement the clauses related to respecting human rights in contracts with service station managers when renewing and negotiating contracts, in particular in Africa, the Americas and Asia-Pacific / Middle East.

In the joint ventures that are not operated by the Company, in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGP), TotalEnergies encourages its partners to set the highest standard of respect of human rights and international standards in this area, not only by including human rights clauses in contracts, but also by raising awareness among representatives in the joint ventures and key personnel (e.g. asset managers) of the respect of human rights.

### IN THE SUPPLY CHAIN

The Fundamental Principles of Purchasing (FPP) set out the commitments expected from suppliers in various domains, including human rights in the workplace and safety. A Company directive reaffirms the obligation to annex the FPP or to transpose them in the selection process as well as in the contracts concluded with suppliers of goods or services.

The prevention of risks relating to working conditions, especially forced and child labor in the supply chain, is a major area of concern and one of the Company's commitments. In this context, the Company is implementing a program of engagement and assessment of its priority suppliers in these fields.

TotalEnergies assesses its suppliers in terms of respect for human rights at work through on-site audits carried out by an independent third party (refer to point 5.10 of this chapter). The Company's objective is to assess the performance of its 1,300 priority suppliers by the end of 2025 in terms of sustainable development (human rights and working conditions, environment and climate) using assessments covering all these aspects. Amongst these 1,300 priority suppliers, 500 are those suppliers that account for more than 50% of the Company's expenditures on goods and services, and 800 are identified as those representing the highest risk in terms of human rights and the environment, in view of their field of activity and the countries where they operate.

In 2022, 200 suppliers were audited and an audit plan for 2023 targeting 300 suppliers was launched. In total, 430 high-risk suppliers in terms of human rights have been audited since 2016. These audits covered 160,000 workers of suppliers worldwide in 77 countries. 181 suppliers required the implementation of action and monitoring plans, of which 53 have been fully completed (validated by a follow-up audit) - positively impacting the working conditions of more than 14,000 of their employees. 128 suppliers are being monitored. A 2023 audit plan, targeting 300 suppliers, was defined in 2022, with the target to achieve 1,300 suppliers audited by the end of 2025.

## 5.7.2 Respect for human rights of local communities

TotalEnergies' operational activities may have impacts on the human rights of local communities, in particular when TotalEnergies obtains temporary or permanent access to their land for projects that may involve the relocation of places of residence and/or economic activities and the resettlement of these populations. In addition, noise and dust emissions and other potential impacts may also have consequences for the livelihood of neighboring communities. Consequently, the access to land of local communities and their right to health and an adequate standard of living are two salient issues for TotalEnergies.

In accordance with internationally recognized human rights standards, TotalEnergies expects from its entities to have a regular dialogue with their stakeholders and make sure that their activities either have no negative consequences on local communities or, if these cannot be avoided, that they limit, mitigate and remedy them.

The solutions proposed in response to the expectations of local communities are coordinated by the societal teams that work in close collaboration with the Human rights department and the legal, safety and environmental teams.

As part of its activities, TotalEnergies promotes dialogue and discussions with human rights defenders, as defined by the United Nations Declaration on Human Rights Defenders.

In 2022, TotalEnergies also faced several sensitive human rights situations in countries where the Company operates.

**Our responsible withdrawal from Myanmar**

Almost a year after the coup d'état on February 1, 2021, we decided on January 21, 2022 to begin the process of withdrawing from the Yadana contracts, effective as of July 2022. PTTEP, our Thai partner in the Yadana field, became the new operator on that date. As soon as the announcement was made, we examined impacts of the withdrawal on the human rights of our employees and local communities near the MGTC pipeline, which transports the gas from Yadana to Thailand, as well as those of the employees of our contractual partners. PTTEP took on almost all of our employees, without changing their contractual terms such as salary, retirement and working conditions. Supporting measures for our employees have been implemented (regular meetings with local management, listening help line, dedicated email address to collect complaints). We also contributed financially to PTTEP's takeover of a social program in favor of local communities.

**Mozambique: our ongoing commitment to our stakeholders**

Following the insurrections and the armed conflict in March 2021, the Mozambique LNG gas project in the province of Cabo Delgado has been suspended since April 2021, further to our declaration of force majeure. As soon as conditions of safety permitted, we resumed our actions with local communities and ensure that their human rights affected by this humanitarian crisis are respected. 1,200 refugee families (4,750 people) returned to their villages of origin in September and October 2022, and we contributed to this return in support of the Government of Mozambique by providing logistical and material aid for their resettlement under better conditions. We have launched various socio-economic projects for local communities in support of local NGOs. Training in human rights and the Voluntary Principles on Security and Human Rights (VPSHR) in particular were also provided to employees and external stakeholders in March and October 2022. We continued to engage with our stakeholders, including communities, NGOs, organizations from civil society, the Government, and in particular the National Commission on Human Rights, which is a key partner.

In December 2022, we asked Jean-Christophe Ruffin, one of the co-founders of "Médecins sans Frontières" and Honorary President of the NGO "Action contre la Faim", to take stock of the human rights situation in the Cabo Delgado province in northern Mozambique, where the Mozambique LNG project is located, and to help us explore additional actions to be taken for local communities and civil society.

## 5.7.3 Respect for human rights in security-related activities

In certain situations, intervention by government security forces or private security companies may be necessary to protect TotalEnergies' staff and assets. In order to prevent any misuse of force, TotalEnergies is committed to implementing the Voluntary Principles on Security and Human Rights (VPSHR) issued by States, NGOs and extractive companies.

TotalEnergies has been a member of this initiative since 2012. Within this framework, the Company publishes an annual report setting out the challenges, lessons learned and good practices in relation to security and human rights and, if applicable, reports any incidents associated with the Company's activities. This report is available on the VPSHR Initiative website and on the TotalEnergies website.

A Company rule came into effect in 2019 to define the Company's requirements for implementing the VPSHR. This rule is accompanied by a VPSHR implementation guide published in late 2020, which aims to provide practical advice for operating entities. The self-assessment and risk analysis tools in this field were revised in 2022 to make them more adaptable to the local situation. In 2022, these tools were rolled out in the subsidiaries in 26 countries.

When government security forces are deployed to ensure the protection of the Company's staff and assets, ongoing dialogue is maintained with the representatives of national or regional authorities in order to raise their awareness of the need to respect the VPSHR and encourage them to sign memoranda of understanding that comply with these principles.

The Company promotes these principles and the VPSHR requirements to the private security companies it hires in connection with its activities. These companies incorporate them, for example, through the training provided to security staff on the VPSHR.

TotalEnergies regularly organizes VPSHR training sessions and awareness-raising initiatives for its employees, in particular to encourage them to report any incidents related to these principles. Specific awareness-raising work on compliance and deployment in the entities considered to be most at risk is carried out annually. The contribution of the subsidiaries to the annual "ADRA Campaign" *(Auto-Diagnostic and Risk-Assessment)* enables the VPSHR teams of the Security division to assist them with improvement actions throughout the year.

In 2022, this awareness-raising work led the VPSHR liaisons to continue the revision the content of the training courses in order to make them more accessible and better adapted to changes and issues related to human rights and security. This improvement was made mainly by developing a new online training module for the Country Security Officers, who support Country Chairs in their role of being responsible for the Company's security at country level and who are the representatives of the Company Security division in charge, among other things, of implementing the VPSHR.

For example, taking into account the security situation and its development projects, the subsidiary TotalEnergies EP Mozambique Area 1 has adopted a specific human rights policy and action plan. Regarding security, Mozambique LNG project has included VPSHR clauses in the Memorandum of understanding with the government security forces to deploy a Joint Task Force (JTF) to protect its operations. These clauses continued to apply, despite the suspension of the project activities in April 2021.

The project continued to conduct human rights training sessions for all Army and police officers when deployed in the JTF. In 2022, 611 officers were trained by qualified personnel from the project's security team, in addition to the 1,027 in 2021.

To improve the sustainability and the ownership of the training courses, Train-the-Trainer sessions continued to be delivered by an accredited international expert to 93 members of the JTF occupying positions of responsibility. These members left the course with a practical kit to be used in an operational context, which has since enabled 1,315 members of the JTF to be trained. Consequently, the members of the JTF can now be trained directly by their superiors.

At the same time, five officers in charge of relations with local communities, in close contact with the project, appointed by the JTF Commander, are involved in humanitarian and social activities. These efforts aim to build trust between local communities and the JTF, thereby contributing to a better resolution of any potential disputes.

In addition, a community grievance mechanism is available to the local communities supported by a toll-free, 24/7 telephone line to resolve any incidents. When incidents are reported, they are rapidly referred to the Joint Task Force Commander for investigation and, according to the severity of the incident, they are escalated to national authorities for further investigation.

Finally, the subsidiary is also involved in the promotion of VPSHR at national level. The project participated in the initiative to set up a national VPSHR working group (In-Country Working Group) as well as a working group covering the province of Cabo Delgado (Cabo Delgado Technical Working Group), launched in April 2022.

# 5.8 Fighting corruption and tax evasion

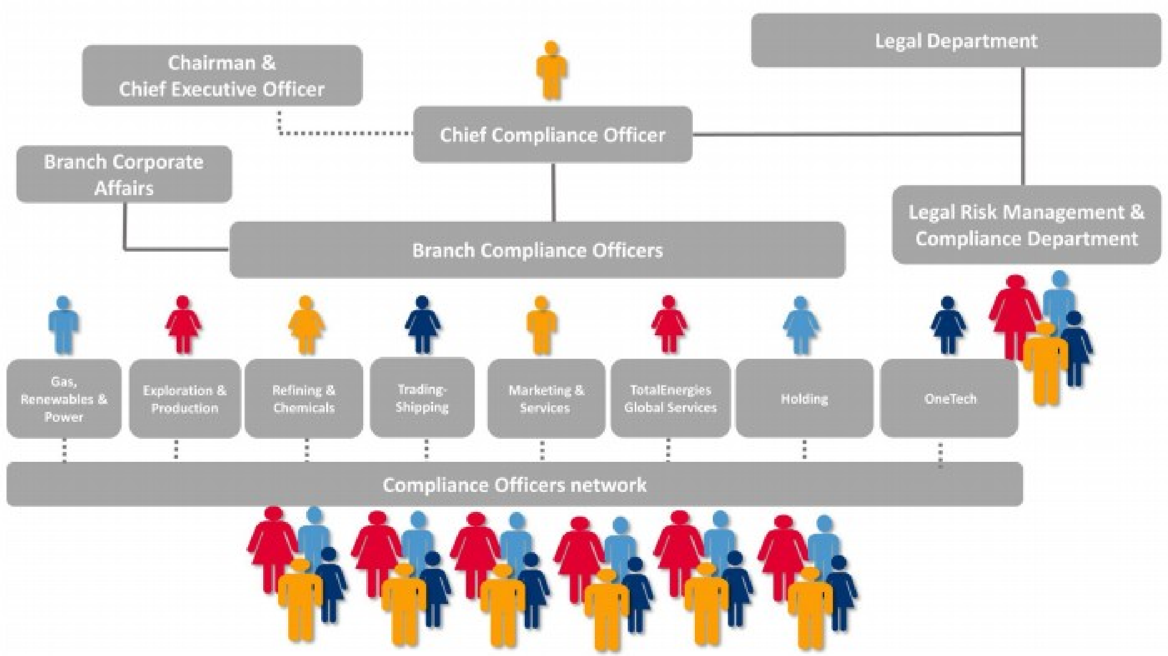
## 5.8.1 Fighting corruption

TotalEnergies is a major player in the energy sector, where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Company is present in close to 130 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TotalEnergies applies a principle of zero tolerance.

To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party.

The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company has drawn up a dedicated action plan to respond to the recommendations of the AFA. This action plan is currently being rolled out.

This compliance program is drawn up by a dedicated organization acting at the Company and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of over 360 Compliance Officers in charge of rolling out and running the program at the subsidiaries level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line.




TotalEnergies' anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistle-blowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct.

### 5.8.1.1 MANAGEMENT COMMITMENT

The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2022, the eighth Ethics Day was devoted to Respect for Each Others. An online speech by the President of the Refining & Chemicals segment, as well as speeches in the same format by the Heads of Compliance, Ethics and Human Rights were made available to employees. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this flagship value of the Company.

The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)[1] in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)[2] since its launch in 2002.

### 5.8.1.2 RISK ASSESSMENT

To regularly adapt the compliance program to the risks to which TotalEnergies is exposed, these must first be identified and assessed. In addition to the Company's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020.

This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, on the occasion of the assessment of the risks of corruption, tools are made available to employees to help them identify these risks more easily, and produce the corresponding mapping, such as the Typology Guide to risks of corruption and the Methodology Guide to the mapping out of the risks of corruption and influence peddling, published for the latter at the end of 2022. To manage the risks identified during the creation of the risk maps, measures are then put in place and specific rules regularly adopted and incorporated into the Company's reference framework.

In accordance with the rules in place, the Chief Compliance Officer presented a summary of the mapping of the various business segments to the TotalEnergies Risk Management Committee for the first time in 2021. The same presentation was provided by the Chief Compliance Officer to the Executive Committee in October 2021. In application of this same rule, some of the business segments, whose corruption risk mapping dates back three years, resumed this exercise at the end of 2022. Consequently, it is expected that all the business segments will have reviewed their current risk mapping by mid-2023 and that a summary of these exercises will be presented to the Company's governance bodies, like it was done in 2021.

### 5.8.1.3 INTERNAL STANDARDS

As an essential element of the Company's reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area. In 2022, it contained even more specific examples of the risks of corruption to which the Company's employees may be exposed.

The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. This set applies to all companies controlled by the Company in accordance with their respective decision-making rules and subject to the legal and regulatory provisions applicable locally. The Anti-Corruption Compliance Directive recaps the main principles and organizes the roll-out of the anti-corruption program. It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistle-blowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified.

In terms of anti-corruption due diligence, the deployment of the computerized supplier qualification tool, which includes the due diligence process resulting from the single rule adopted in 2020, is continuing. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business people with support from their Compliance Officer, who may call on the Branch Compliance Officer.

Particular attention is paid to representatives (agents or others) dealing with public officials for whom the applicable internal rule specifically provides for mandatory due diligence and monitoring by operational staff of contractual relationship with such third parties, which may include the verification of invoices, the control of activity reports or the organization of audits. In addition, the Company has an internal governance system that allows the various business segments to manage, in a uniform and cross-functional manner, the specific case of third parties that would be rejected after due diligence.

Following the adoption in 2020 of a rule to address the recording and accounting of expenses covered by anti-corruption compliance rules, two guides were published in the summer of 2021 for the accounting and compliance functions.

Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint ventures; and human resources-related processes such as recruitment.

In general, internal standards are amended to take the regulatory and legislative changes applicable to TotalEnergies into account.

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

### 5.8.1.4 AWARENESS RAISING AND TRAINING

Awareness raising actions are carried out toward all employees. The TotalEnergies intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled "Prevention and fight against corruption". A new poster campaign of the key messages in high-risk areas (such as gifts and invitations, accounting controls and third-party assessments) was organized in 2022.

Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 82,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which is mandatory for the target populations (approximately 35,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs. By the end of 2022, this new online training course, which was launched during the year, had already been completed by more than 31,000 employees.

At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers. In addition, in 2023, specific webinars are planned to be deployed for these same functions.

Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics.

### 5.8.1.5 FEEDBACK OF INFORMATION

Information is mainly escalated as part of an annual reporting process, for which the Company deployed a new dedicated internal tool in 2022. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed.

The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the road map aligned with the identified areas of improvement.

In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct.

In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors.

Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.

### 5.8.1.6 ASSESSMENT AND MONITORING

The anti-corruption program is monitored at the first level by business people, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the TotalEnergies Compliance and Legal Risk Management Department. These second-level assessment missions are carried out by an internal team reporting to the Chief Compliance Officer, accompanied by lawyers and external service providers specializing in financial and accounting data analysis. Each year, around twenty of these missions are carried out on the subsidiaries deemed to be most exposed to the risk of corruption on a multi-criteria basis (Transparency International index, date of the last assessment mission, possible incidents in particular). In addition, the Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, this division also helps monitor the anti-corruption program through audits called "assurance audits" performed according to a framework that includes compliance topics. The controls performed in this context by the Audit and Internal Control division are selected on the basis of the results of the risk analysis it carries out prior to each assignment. The controls carried out may relate in particular to the assessment of third parties, the mapping of corruption risks or the disciplinary system. This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which requires the adoption of an "Anti-Corruption Control Plan" (ACCP) within each business segment. This guide was reviewed at the end of 2022 and published at the beginning of 2023, in particular to supplement the examples of tests that may be carried out as part of the ACCP.

### 5.8.1.7 DISCIPLINARY ACTION

In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. TotalEnergies' resolve in this matter is repeated in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program. In 2022, the Company recorded just over 200 integrity incidents (covering fraud - excluding attempts -, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal.

## 5.8.2 Fighting tax evasion

With a presence in close to 130 countries through 1,149 consolidated entities, TotalEnergies carries out its operations in a constantly changing environment and is subject to an increasingly complex set of tax regulations, which may be in conflict when combined or subject to varying interpretations, thus giving rise to potential tax risk.

In this context, TotalEnergies has developed a responsible tax approach based on clear principles of action and rigorous governance rules as set out in its tax policy statement, which is available to the public on the website of TotalEnergies.

TotalEnergies publishes a tax transparency report on its corporate website which discloses detailed information on the taxes paid in its main countries of operation, in order to provide its stakeholders with a better understanding of the Company's tax position pursuant to the recommendations of the Global Reporting Initiative and the World Economic Forum.

**Tax Policy of the Company**

Tax payments of TotalEnergies represent a substantial part of its economic contribution to the countries in which it operates.

Mindful of its responsibility, the Company is committed to paying its fair share of taxes to the host countries of its operations, in compliance with applicable laws and conventions and in accordance with its Code of Conduct.

The structuring of our investments worldwide is driven by our business operations and the regulatory framework.

Our tax policy's prime focus is certainty and sustainability in the long term. We thus believe that artificial or aggressive tax planning mostly derives short term tax benefits and is not compatible with a sustainable approach.

We apply the arm's length principle for the determination of our intercompany transfer prices and we pay our income taxes in the countries where we create value, in compliance with applicable laws and regulations.

It is the Company's long-term commitment not to create affiliates in countries generally acknowledged as tax havens and to repatriate or liquidate existing affiliates, where feasible.

Government authorities may offer tax incentives to support business sectors, create employment or foster their economic development. The Company may only claim incentives that are aligned with its business strategy, relate to investments with genuine economic substance and meet the requirements set by host countries.

The Company takes a responsible approach to the management and control of taxation issues, relying on well-documented and controlled processes.

The management of tax risks is fully integrated in the Company's global risk governance process. As part of this process, the VP Tax, under the authority of the Chief Financial Officer, oversees the implementation of the tax policy and reports on a regular basis to the Board's Audit Committee on TotalEnergies' tax position. The tax function is made up of a network of qualified and regularly trained in-house tax experts at the corporate level, in the business segments and in the affiliates.

Transparency is an essential factor in building a trust-based relationship with our stakeholders. As a permanent member of the Extractive Industries Transparency Initiative (EITI) since its formation in 2003, TotalEnergies fully supports initiatives for greater transparency and accountability. We encourage governments to ensure that the tax reporting obligations they will impose upon multinational groups are consistent, coordinated and proportionate.

We engage with a broad range of stakeholders, and especially with tax authorities, in a timely, transparent and professional manner which is the basis of a constructive and long-term relationship. In France, the country of its headquarters, TotalEnergies has been part of the cooperative compliance program upon its inception in 2019, thus pursuing greater transparency, dialogue and trust in its relationship with the French tax administration.

As regards advocacy relating to tax matters, TotalEnergies follows the rules set forth under its Code of Conduct and its Advocacy Directive, both available to the public on the Company's website. The Company is committed to fighting any form of corruption and does not intervene in the functioning or financing of the political life in its host regions. It undertakes to convey messages to the authorities that are consistent with its stated positions and strategies and to be transparent about such messages, whether they are positive or defensive, notably with regard to the Company's support for the objectives of the Paris Agreement relating to the fight against climate change.

The Company publishes in its Universal Registration Document an annual report covering the payments made by its extractive affiliates to governments and the full list of its consolidated entities, together with their countries of incorporation and of operations. The Company also issues a tax transparency report, which provides additional information on the taxes paid in its main countries of operations on a country-by-country basis. This report aims to offer more detailed information on the Company's tax position.

In compliance with its goal to foster a global responsible tax environment and encourage best practices, the Company endorsed the Responsible Tax Principles developed by the B Team, a non-profit organization bringing together business leaders and representatives of civil society with the aim of promoting a sustainable form of economic and social development.

The present tax policy is included in the Company's Universal Registration Document. It is reviewed by the Audit Committee and approved by the Board of Directors.

# 5.9 Value creation for host regions

Based on the values and principles formally set out in its Code of Conduct and Safety Health Environment Quality Charter, TotalEnergies strives to be an agent of positive change for society, and to contribute to its development through its societal actions.

At a national level, the Company's activities generate value for the countries where it operates, and TotalEnergies intends to contribute to the development of economic opportunities for its host regions and communities. At a local level, the Company's activities can be a source of opportunities for the people, but may also have an impact on the living conditions of local communities and residents. Furthermore, in order to address society's global challenges, the Company is committed to the public interest.

In this this context, the Company has identified its main risks and opportunities with regard to creating and sharing value:

- fostering the economic development of the host regions;
- managing societal challenges related to the Company's activities;
- engaging in citizenship initiatives.

## 5.9.1 Fostering the economic development of host regions

### RECRUITING LOCAL PEOPLE AND SUPPORTING THE DEVELOPMENT AND CREATION OF LOCAL BUSINESSES IN HOST COUNTRIES

In addition to contributing directly to job creation in the countries where the Company operates (refer to point 5.6 of this chapter), TotalEnergies is committed to recruiting local people and subcontractors whenever its operational constraints so permit.

For each industrial project presented to the Executive Committee in accordance with the investment thresholds, TotalEnergies sets itself the target of maximizing local employment and value creation for the host country through procurement, manufacturing and the development of local capacity and skills. New renewable energy projects, in particular offshore wind projects, are gradually integrating this methodology in order to contribute to the development of new industrial sectors and local employment.

The methodology involves an **analysis of the local context** in terms of regulations, stakeholder expectations and local economic and industrial capacities. Based on this analysis, depending on the needs of the project and future operations, existing local capacities, those requiring development support and those not available are determined. The analysis is complemented by working sessions with key suppliers to gather their views on how to mobilise and develop local content.

This approach enables to define a strategy for developing local content during the construction phase of the project and in operation. During the construction phase, the strategy incorporates objectives and actions relating to vocational training and support for local businesses. During the construction phase and in operation, key suppliers and their subcontractors are selected if they meet or exceed the local content targets set in the tenders. In order to monitor the achievement of the targets, suppliers and their subcontractors are required to submit a detailed report on their achievements (employment, use of local subcontractors, investments and initiatives in skills development and support to local businesses). This forms the basis for calculating impact: jobs and local value created.

This approach has been applied notably to the Tilenga project in Uganda and the EACOP project in Tanzania. In the case of the Tilenga project, the local content development approach should make it possible to:

- create approximately 7,800 direct local jobs during the construction phase, of which 60% technicians, 25% workers and 15% managers and engineers, stabilizing at around 3,000 during the operational phase,
- create approximately 14,000 indirect local jobs during the construction phase, then approximately 5,000 during the operation phase. A significant portion of these indirect jobs will be created in the project area (Buliisa),
- carry out 1.1 million hours of training by the Company and its contractors,
- spend approximately 700 million dollars with local suppliers during the construction phase, which is expected to generate up to 1.2 billion dollars in additional national economic wealth[(1)]. During the operation phase, the site is expected to spend approximately 60 million dollars per year with its suppliers, which is expected to generate approximately 100 million dollars in national economic wealth[(1)].

It is currently being rolled out for the Ratawi project in Iraq and the PNG project in Papua New Guinea. Furthermore, analyses of local content during the tender preparation phase for offshore wind projects in Australia and the United States (Oregon) were also carried out in 2022.

Since the validation of the new Sustainable procurement program in January 2022, the management of local content and the sharing of value with the host countries in which TotalEnergies' projects are carried out has been at the heart of the Company's *Responsible Purchasing* approach (refer to point 5.10).

(1) TotalEnergies study.

In addition, through a program dedicated to young entrepreneurs on the African continent, the Startupper of the Year challenge, TotalEnergies is reaffirming its commitment to supporting the socio-economic development of the countries in which the Company is established. TotalEnergies thus contributes locally to the reinforcement of the social fabric, through the support brought to the most innovative entrepreneurs, in the realization of their project. Following the success of the first contest in 2015-2016 in 34 African countries, the 2018-2019 challenge was extended to 55 countries worldwide. The third edition in 2021-2022 refocused on Africa with the participation of 33 subsidiaries on the continent. More than 13,800 complete applications were filed on the platform in December 2021. In April 2022, around a hundred winners were recognized 3 per country) with 3 awards: best entrepreneur of the year, best start-up less than three years old and best business creation project.

## SECURING OUR TRANSFORMATION THROUGH STRONG TIES WITH REGIONAL PLAYERS AND DETERMINATION TO BRING ABOUT A JUST TRANSITION

In **France**, TotalEnergies is supporting the conversion of its industrial sites and intends to share its transformation ambition with its stakeholders. Since September 2021, a dedicated division has been responsible for forging ties with its local public and private stakeholders and fostering dialogue focused on the regions. The extensive responsibilities of this division are to represent the Company in the regions, to dialogue with stakeholders, to establish partnerships, for example through collaborations with regions and cities, to integrate into the regions by participating in certain regional bodies in close proximity to regional decision-makers, to communicate on the transformation of the Company, involving the Company's segments and the Corporate Foundation. As an illustration, during 2022, in each region, think tanks were set up to engage with stakeholders on regional issues related to the energy transition (acceptability of renewable energies, skills, technological challenges, just transition, etc.): the 34 meetings held brought together nearly 300 participants. Several partnerships have been established with metropolitan areas such as Toulouse and Nice Côte d'Azur to support these regions in their energy transition and economic development. TotalEnergies has also entered into a partnership with the FNSEA (umbrella organization representing local agricultural unions and regional federations) to move forward together for the decarbonization of the agricultural world.

This division is also in charge of supporting the conversion of the Company's industrial sites as part of its determined efforts to achieve a just transition and to support the energy transition. Thus, the subcontractors of these sites are supported in setting up training and repositioning the skills of their employees in particular toward the new specialties of the energy transition. Support can be offered to employees in their personal business creation projects. Projects led by other industrialists can be supported and subsidized in order to facilitate the establishment of new industrial units. Each project takes into account an analysis of the evolution of the markets in order to restore the competitiveness of the industrial sites over the long term. A Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change. In this way, TotalEnergies reaffirms its responsibility toward the employment basins in which the Company operates as well as its commitment to maintaining a strong and lasting industrial presence.

- On the **Carling** industrial platform, the CVDES relating to the shutting down of the second steam cracker was ended in 2018 with a final commitment of €12 million in grants from TotalEnergies for four industrial projects representing €125 million of investment and 143 jobs created. TotalEnergies also committed to support these industrial projects until the effective start-up of the production units. The Metabolic Explorer and Afyren green chemistry industrial units were inaugurated in September 2021 and September 2022 respectively.
- The conversion of the **La Mède** refinery, involving an initial investment of more than €275 million, has been completed, with the start-up of an 8 MW solar power plant in 2018 and the first French biorefinery in July 2019. The CVDES of La Mède was closed in March 2021. TotalEnergies has supported subcontractors and eight industrial projects and three industrial demonstrators, with the planned creation of nearly 300 jobs.
- On the **Lacq** platform, a specific unit of TotalEnergies researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest grouping, the Lacq-Orthez district authority and Sobegi. The construction of the green chemistry unit in the name of Alpha Chitin (investment of €14 million and 20 jobs created for the first phase) was completed at the end of 2022. At the end of 2021, the Caremag project for the recycling of rare earths from permanent magnets present in electric motors and the separation of heavy rare earths announced its localization in the Lacq basin. With the addition of a second project to separate heavy rare earths, Caremag now plans to invest €150 million and create 80 to 120 jobs. In addition, an e-methanol project is under consideration. The coordinated resources of local players, including TotalEnergies, have enabled the creation of new sectors of the future linked to the energy transition on the site.
- On the **Grandpuits** platform, TotalEnergies is supporting the project to convert the site into a "zero-crude" platform as announced in September 2020 and representing a planned investment of €500 million. The Grandpuits platform will have four major activities: the transformation of biomass into biofuels, the production of bioplastics, the recycling of plastic waste and the production of photovoltaic energy and its storage in batteries. The CVDES between the public authorities and TotalEnergies sets a budget of nearly €5 million dedicated to supporting the Grandpuits and Gargenville employment areas and, in particular, subcontractors and the creation of new industrial jobs, with a view to a just transition.

Finally, TotalEnergies supports the creation or maintenance of sustainable jobs in France by granting loans to SMEs, particularly those with projects that contribute to the ecological and energy transition. Between 2020 and 2022, loans were granted to 358 SME projects, amounting to a total of €13.7 million, and nearly 10,000 jobs were supported.

## 5.9.2 Managing societal challenges related to the Company's activities

### 5.9.2.1 A STRUCTURED OPERATIONAL SOCIETAL APPROACH

The Company integrates societal issues into the conduct of its operations through its One MAESTRO reference framework (refer to point 5.3 of this chapter). Guides, manuals, video tutorials and a community of practices, available online to all TotalEnergies' subsidiaries, help them implement their operational societal approach, which is adapted to the specific local requirements of the regions and communities. The main steps in this process are:

- dialogue and involvement of local stakeholders;
- the analysis of the challenges and local societal context;
- the development of a societal strategy integrated with operations;
- the implementation and monitoring of societal actions and projects.
- the implementation of a complaints management system.

#### DIALOGUE AND LOCAL STAKEHOLDER INVOLVEMENT

TotalEnergies promotes dialogue with local stakeholders to develop constructive and transparent relationships with them. To this end, TotalEnergies' One MAESTRO framework requires subsidiaries to engage in a structured, regular dialogue with their stakeholders to inform them, listen to them and take their concerns and expectations into account. It also requires subsidiaries to report on actions to avoid, reduce or offset negative impacts, and to measure stakeholder satisfaction and identify areas for improvement. TotalEnergies acknowledges the specificities of the rights of indigenous and tribal peoples (International Labor Organization Convention No. 169) and has developed a framework which defines principles to be followed with these communities. It encourages the use of experts in order to identify and understand these peoples' expectations and specificities, to consult them and to contribute to their socio-economic development. This initiative is also consistent with the United Nations Guiding Principles on Business and Human Rights.

In the Refining & Chemicals segment, refineries and petrochemical sites put consultation with stakeholders at the heart of their ongoing improvement strategy and are all ISO14001 certified. Local structures for dialogue have been set up, such as Community Advisory Panels in the United States and specific local committees for certain European platforms (e.g. Feyzin neighbors' conference, La Mède neighbors' meetings and Donges residential committee).

Marketing & Services has developed stakeholder engagement tools which are adapted to the diversity of its businesses (oil terminals, filling sites, lubricant plants, road transportation and service stations) which can be easily adapted in a wide variety of contexts and regions.

For Exploration & Production projects, dialogue is initiated from the exploration phase, even when TotalEnergies does not have permanent teams on site. Each subsidiary or project develops an engagement plan with stakeholders describing a process for transparent dialogue, as well as the timetable and means of ensuring its implementation. A network of Community Liaison Officers (CLOs) has been rolled out on the ground covering most of the projects to provide information to and consult with neighboring communities, authorities and other local stakeholders, with a particular focus on vulnerable groups. Employed by TotalEnergies, they speak the local languages and understand local customs. Their role is crucial for establishing good relations between TotalEnergies and its stakeholders.

For example, in 2022:

- in France, TotalEnergies Renouvelables France has developed a kit to respond to the need of pedagogical communication and information tools adapted to certain audiences, particularly during the prospecting and stakeholder consultation phases. The kit was developed in partnership with a local company specializing in the professional integration of workers with disabilities,
- in Spain, where several solar energy projects are being developed, monthly meetings are held with local representatives in charge of environmental issues in 6 communities, with the aim of discussing prevention and mitigation measures adapted to the local context of 12 projects,
- on the African continent, Marketing & Services deploys the SRM+ (Stakeholder Relationship Management) methodology, adapting it to the specific features of the network of service stations in order to further anchor TotalEnergies in the life of the surrounding community. Based on the recommendations of a panel of managers and the expectations of their stakeholders, initiatives are rolled out at all service stations, promoting the economic development of local residents: for example, support for local SMEs by listing their products in shops, local recruitment and solidarity initiatives,
- in Argentina, as part of the societal studies prior to the Fénix offshore project, the subsidiary implemented a plan for dialogue and consultation with stakeholders. Participatory workshops and informative meetings were held and the study was published,
- in the Republic of Congo, the societal team of the Exploration & Production subsidiary has held quarterly meetings for several years with the Djéno Neighborhood Committee in order to maintain a permanent, transparent and constructive dialogue with the communities around the facilities. This is an opportunity to discuss with stakeholders the solutions to be implemented in order to minimize negative impacts and optimize the positive effects (employment, training, socio-economic development projects) of the operational activities presence,
- In Papua New Guinea, the Exploration & Production subsidiary maintains an intense dialogue with more than 600 meetings held, particularly with local communities and traditional authorities,
- In France, several dialogue initiatives are conducted within the Refining & Chemicals segment:
  - as part of the project to transform the Grandpuits refinery into a zero-crude platform, the site organized a meeting for local residents to present the project's hazard and impact studies in order to discuss the site evolution with the general public,
  - Carling polymers site organized an environmental seminar for its local stakeholders (associations, French and German administrations). The site presented its actions in favor of the environment, its future projects and organized a tour of its manufacturing workshops,

– Feyzin platform organized some 15 site visits for its local external stakeholders (municipalities, civil society and government) during its major planned maintenance shutdown in the petrochemicals units. In addition, on June 2, 2022, the Feyzin platform signed the "Charter of 1,000", confirming its commitment to employment and integration of young people in the region area, alongside the MMI'e (*Maison Métropolitaine d'Insertion pour l'Emploi*), the city of Lyon and the French government.

## ANALYSIS OF CHALLENGES AND SOCIETAL CONTEXT

The assessment of societal risks and issues is a key element in the evaluation of the feasibility of a project. An assessment of the societal risks and challenges is thus one of the criteria for making investment, acquisition and divestment decisions concerning projects presented to the Company's Risk Committee.

When the decision is taken to develop an industrial project, this assessment is complemented by a **detailed baseline study** to identify in advance the stakeholders potentially affected, describe the local context and assess the main socio-economic and cultural stakes (risks and opportunities) in the affected area. A **societal impact assessment** is then conducted to assess and analyze the opportunities and the direct, indirect or cumulative risks of the project in the short, medium and long term. In 2022, 129 of these studies were launched or carried out in the Company. In the operations phase, the One MAESTRO standard requires that a regular assessment of the societal context and issues be carried out by the subsidiaries and updated at least every five years.

In the development and operational phases of the project, context analysis is based largely on mapping and consultation with stakeholders such as authorities, neighboring communities, economic operators and civil society. The analysis of societal risks takes into account the sensitivity of the socio-economic environment and the severity of societal impacts related to the activities, including on human rights.

## DEVELOPMENT OF A SOCIETAL STRATEGY INTEGRATED INTO OPERATIONS

TotalEnergies strives to build a societal strategy and an action plan ahead of operations that are validated by management and adapted to the local context and challenges to anticipate and avoid potential conflicts with stakeholders and in particular with local communities.

The strategy is defined according to the requirements of the stakeholder management rules and local impacts, including the assessment of societal risk, the establishment of a complaints management system and dialogue with stakeholders.

The strategy and action plan are structured around three levers:

– permanent dialogue with stakeholders, which must be adapted to the local cultural context,
– management of negative societal impacts related to the Company's activities (avoid, reduce and offset),
– develop initiatives to generate a positive impact on local communities around the world by offering development programs tailored to their needs.

## IMPLEMENTING AND MONITORING SOCIETAL ACTIONS AND PROJECTS

TotalEnergies' operational subsidiaries are in charge of implementing the societal strategy and monitoring it, with the support of the societal teams reporting to TotalEnergies' HSE division, which provide the operational subsidiaries with their expertise for the implementation of the One MAESTRO reference system. Societal aspects are included within the scope of the One MAESTRO audits that produce recommendations to reinforce control of operations. Moreover, the subsidiaries must conduct a self-assessment of their societal initiative and an annual internal report to list the societal actions taken locally.

In terms of training, a societal module has been integrated into the *HSE for Managers* training program, 10 sessions of which were delivered in 2022 with a total of 200 participants (refer to point 5.3.2 of this chapter). Training on societal performance is also being deployed in Exploration & Production to raise awareness among various lines of business about societal issues and the tools available. In 2022, five training sessions were held for a total of 88 people (Angola, Bolivia, France, Libya, Mozambique, Nigeria, Norway, Papua New Guinea, Suriname and the US). A new social awareness module was created in 2022 and is available to all employees through the internal training platform.

Webinars attended by nearly 180 participants were organized in October 2022 for the launch of the societal reporting campaign.

## HANDLING GRIEVANCES FROM NEIGHBORING COMMUNITIES

The One MAESTRO reference framework provides that the Company's operating subsidiaries[1] are expected to implement grievance handling procedures aligned with the United Nations Guiding Principles on Business and Human Rights. These provide residents and local communities with a preferential and easily accessible channel to voice their concerns and grievances and involve them in finding a solution. At every stage of the asset life cycle, from developing a project to cessation of activity and divestment, the Company intends to provide swift and appropriate responses to people or organizations that have been adversely affected. As part of a continuous improvement process, analysis of all grievances received helps improve operations. Grievance management forms part of the Company's societal reporting and is one its performance indicators. The subsidiaries of the Exploration & Production (EP), Refining & Chemicals (RC) and Marketing & Services (M&S) segments of the One MAESTRO roll-out scope with operational activity in 2022 (refer to point 5.11.4 of this chapter) continued the implementation and improvement of their complaints handling system.

| Societal indicator | 2022 | 2021 | 2020 |
|---|---|---|---|
| Percentage of EP, RC and M&S segments' operating subsidiaries in the One MAESTRO roll-out scope with an operational activity which have a grievance mechanism in place | 100% | 100% | 99% |

Complaints received by the Company's subsidiaries in connection with the societal impact of their activities are distributed among the following types: access to land and habitat, economic losses/loss of livelihood, dangers for the environment and health, employment and value chain, road safety/logistics and transportation, adverse impact on culture and heritage, security and social conduct, quality of local dialogue and management of economic development projects.

(1) Subsidiaries included in the roll-out scope of One MAESTRO (see point 5.11.4 of this chapter) and having an operational activity, *i.e.*, excluding commercial offices, trading activities and EP subsidiaries with no exploration or production operations in 2022.

### 5.9.2.2 EXAMPLES OF MANAGEMENT OF NEGATIVE IMPACTS LINKED TO OPERATIONAL ACTIVITIES

Following the analysis of the challenges and the societal context, the actions taken by subsidiaries to minimize the impacts are adapted to the reality of the situation on the ground.

**Impacts for local communities on access to land, maritime space and resources**

In Mozambique, the Exploration & Production subsidiary has established a local partnership with a foundation as part of a plan to restore livelihoods covering the province of Afungi and the districts of Palma and Sede. 15 projects started up, involving approximately 1,075 people in 2022 and ultimately targeting more than 2,040 beneficiaries.

Projects are implemented in areas such as:

- the development of agricultural and fishing activities,
- the creation, development and capacity building of micro, small and medium-sized enterprises (MSME) in the logistics, passenger transport (tuk-tuks), computer kiosk, equipment factory and store sectors,
- microfinance with a savings and credit assistance program offered to community members, in particular for women, to enable them to create new profitable micro-enterprises and to meet the needs of households in their communities:
  - savings, credit and business training,
  - 12-month, interest-free micro-loans.

In Uganda, the construction of new houses was proposed as compensation to the 235 households physically displaced by the Tilenga project. By the end of December 2022, 85 houses had been delivered, including 55 in 2022. Our livelihoods restoration program continues with support to affected households. The main components of the assistance consist of improving agriculture and livestock production, which are the main livelihood activities of the households; supporting small businesses and providing vocational training in various aspects of business such as motorcycle mechanics, electricity, hairdressing, catering, tailoring, car mechanics, among others.

In France, the Integrated Gas, Renewables & Power (iGRP) segment focuses on managing the impacts of its activity on biodiversity. Eco-grazing has been implemented in 32 power plants in France in partnership with 22 local farmers.

**Impacts on cultural and religious practices and heritage**

Understanding the social and cultural context is fundamental to the proper management of cultural, religious or heritage impacts. To this end, TotalEnergies uses specialists to carry out specific studies prior to new operations.

For example, in 2022:

- Namibia's Exploration & Production subsidiary conducted an impact study on cultural heritage in several indigenous and vulnerable communities accounting for 2,912 diagnostics,
- in South Africa, in the province of Eastern Cape, where all of the Company's exploration blocks are located (DWOB, block 5/6/7 and Block 11B/12B), a study was conducted on the religious ties that indigenous populations maintain with the ocean and coasts and how their associated practices and beliefs can be affected by exploration drilling,
- in Uganda, as part of the management of impact on cultural and archaeological heritage, specialized services in the excavation, exhumation and displacement of graves and sanctuaries were used to prevent risks to this heritage during construction activities.

**Other impacts**

- in Uganda, as part of the handling and resolution of complaints from local residents concerning a service station adjacent to a primary school, the Marketing & Services subsidiary financed the move of the school's kitchen, in coordination with the stakeholders,
- in France, following complaints from local residents concerning noise from the washing center in Cronenberg, an acoustic hall was built to insulate the noise of the activities.

### 5.9.2.3 EXAMPLES OF CONTRIBUTION TO SOCIO-ECONOMIC DEVELOPMENT IN FAVOR OF LOCAL COMMUNITIES

First and foremost, the local projects address the issues of development and solidarity identified thanks to consultations with local communities, and favor cooperation and skills development.

#### ACCESS TO ENERGY

In connection with the Company's ambition to provide accessible energy to as many people as possible, the Integrated Gas, Renewables & Power segment is developing a range of solar solutions to provide access to distributed energy in 40 countries by the end of 2022. To date, more than five million lamps and solar kits have been sold (including 700,000 in 2022), giving 22 million people access to energy and avoiding 4.7 Mt $CO_2$. The Company's aim is to equip 25 million people by 2025. In 2022, TotalEnergies expanded the range of products and reviewed their design to facilitate their repair and installed battery collection and recycling points.

In France, the Company is pursuing its action to fight fuel poverty, by helping low-income households make their homes more energy efficient within the framework of a number of national programs and initiatives (€327 million spent by the Company in 2022). The commitment to combat fuel poverty also concerns mobility via a program to provide help with transportation for people looking for jobs in partnership with WIMOOV.

#### DEVELOPMENT OF LOCAL COMMUNITIES

In France, TotalEnergies Renewables France proposes projects eligible for participatory financing of electricity production sites. In 2022, 525 investors financed 8 projects (7 solar and 1 wind) for a total of 3.9 million euros. In order to ensure that the projects are locally based, TotalEnergies has reserved the first phase of financing for the people living closest to the Bois du Mourlot power plant.

In Nigeria, the Exploration & Production segment has arranged the building and equipment of skills development centers for women and young people. These centers are present in seven states of the country.

In Angola, the Exploration & Production segment has rolled out two programs in collaboration with the NGO Vision Mondiale. The first is dedicated to women coffee farmers in Gabela, the second to training fishermen in Ambriz.

In South Africa, the Marketing& Services subsidiary supports a program to support and empower women with disabilities in the agricultural sector.

## DIVERSIFIED PROGRAMS

In Marketing & Services, a social and environmental program was launched in April 2020 on the African continent, based on the geographical footprint of its network of more than 4,600 service stations in 40 countries approximatively. The programme has been approved by the Marketing & Services segment's Management Committee and is steered by each subsidiary. It focuses on seven axes.

- 5 of these axes have a societal approach:
  - promotion of road safety, with the marketing and distribution of accessories (hi-vis vests, crash helmets for motorcyclists, etc.) and the organization of customer events - like in Guinea where 37,000 people were concerned,
  - access to free Wi-Fi in service stations for customers, in a context where the cost of access to data is still very high, with the aim of equipping 2,000 service stations. At the end of 2022, more than 750 service stations offered this service,
  - reducing the environmental footprint of service stations, particularly in the areas of recycling used oil, reducing energy consumption and recycling plastic waste from stations and customers. On this last point, partnerships have been formed with local players, such as Mr Green in Kenya, Coliba in Côte d'Ivoire and Voltic in Ghana. Initiatives are also being carried out to recycle the water used to wash vehicles in certain service stations, such as in Tunisia, or to collect rainwater for use in the maintenance of green spaces or for cleaning outdoor spaces at service stations such as in Burkina Faso, Equatorial Guinea, Kenya, Tanzania and Mauritius,
  - collaboration with schools close to service stations. The network's teams are involved with these schools in awareness-raising campaigns, improving schooling conditions, providing infrastructure or welcoming young people on work experience,
  - promotion and development of the Young Managers program, which allows pump attendants who have the potential to benefit from financial and human support to become an entrepreneur and manage a service station. At year-end 2022, more than 1,800 service stations were operated by a young manager.
- 2 other axes have a broader vocation in terms of sustainable development:
  - collection of used oil from our customers in some subsidiaries and end of plastic bags at service stations. This objective was achieved in 2021, opening the way to replacing plastic in other consumables,
  - solarization of 2,300 service stations until 2023.

## 5.9.3 Engaging in citizenship initiatives

TotalEnergies believes that a company must be a committed player in the regions in which it operates, beyond its economic, social and societal contribution. The Company has thus chosen to direct its actions of general interest mainly towards youth, particularly the most vulnerable. These initiatives are carried out in France by the TotalEnergies Corporate Foundation and contribute to civic engagement. Internationally, the TotalEnergies Foundation program, supported by its sites and subsidiaries, embodies this dynamic. Since 2018, through the employees' solidarity engagement program *Action!*, employees have been able to devote up to three workdays a year to general interest projects. By the end of 2022, *Action!* had been rolled out in 98 countries, and nearly 25,000 solidarity actions had been carried out since its launch.

### 5.9.3.1 THE TotalEnergies CORPORATE FOUNDATION AND THE TotalEnergies FOUNDATION PROGRAM

Throughout the world, youth unemployment and insecurity have worrying, if not dramatic, human and economic consequences. Since sustainable development necessarily includes providing for youth, the Company operates through the TotalEnergies Foundation general interest program in its countries of operation. Its objective is to give the most vulnerable young people the means to take their destiny in their hands, promoting equal opportunities and contributing to their autonomy.

The TotalEnergies Corporate Foundation also contributes, in France, engaging in citizenship initiatives. Founded in 1992, the Corporate Foundation is now working alongside its partners in four priority areas, in line with its history, business lines and values: education and integration; road safety; climate, coasts and oceans; and dialogue between cultures and heritage.

The TotalEnergies Foundation general interest program gives a preference to collective action as a way of mobilizing all players in a region, associations, public and private bodies. This joint approach based on local needs also allows the testing and spin-offs of new solidarity models.

In addition to financial backing, the partner associations receive operational support. For example, this may concern the digital domain, strategy, communication or impact assessment. A community of players linked to the program is coordinated in order to facilitate exchanges and possible connections among associations working on similar or complementary subjects. It took shape with the holding of webinars and a partners' day that brought together more than 80 associations in December 2022.

### 5.9.3.2 FOUR AREAS OF ACTION

The actions under the TotalEnergies Foundation program, like those under the Corporate Foundation, are based on four societal challenges, in line with the Company's history, values and business lines.

## EDUCATION AND INTEGRATION

Unemployment and job insecurity are affecting more and more young people all over the world. The *Education and Integration* area aims to empower young people who are socially vulnerable, by means of support and guidance, training, particularly in industry, and integration into the world of work.

In this context, for example, the Industry of the Future campus, INDUSTREET, located in Stains in the Paris region, which celebrated its second anniversary at the end of 2022, will have welcomed nearly 270 young people. This training center for new professions in the industry leads to free certifications and offers a training course based on learning by doing. Over time, it plans to provide places for 400 young people aged between 18 and 30 each year.

Also, since 2018, the TotalEnergies Corporate Foundation has committed to supporting the deployment of production schools in industrial professions throughout France for 10 years. This significant financial contribution should allow the number of schools to be increased from 25 in seven regions to 100 schools throughout France by 2028. By the end of 2022, the TotalEnergies Corporate Foundation had supported the creation of 27 new schools and the extension of 10 existing schools. In 2022, the TotalEnergies Corporate Foundation also launched its third call for partners in France and selected nine new associations to broaden its scope of action, particularly in the areas of parent support, mastering the basics of French and study visits.

#### ROAD SAFETY

Road accidents are the leading cause of death among young people worldwide. Echoing Safety, the TotalEnergies' core value, Road Safety, as the second area of action, aims to ensure safer mobility in order to contribute to the global target of the UN's Action Plan for the decade 2021-2030 of cutting the number of deaths and injuries on the road by 50% between now and 2030. This Plan actions include educating young people by means of local awareness-raising, training and advocacy efforts, as well as participation in and support for the initiatives of international organizations.

In this context, in 2022, the TotalEnergies Corporate Foundation continued to roll out *VIA*, a youth education program on safe mobility and citizenship by training more than 300,000 students in 35 countries. With the NGO *Amend*, in Africa, more than 1,000 motorcyclists received training. Also through the *Global Alliance* network, still in Africa, five NGO training sessions were provided and 22 grants were given to build their capacities, help them to engage and effectively advocate with local decision makers.

As part of TotalEnergies Foundation program, the Compagny continued to support the NGO *'YOURS'* (*Youth for Road Safety*) was maintained. The NGO was able to present youth requests at a high-level road safety meeting at the UN Headquarters in New York at the end of June 2022.

A partnership has also been established with the *International Road Federation* to provide free access to reliable road safety statistics for 193 countries around the world for decision-makers and partners.

#### CLIMATE, COASTAL AREAS AND OCEANS

The third area of action aims to support initiatives that benefit coastal areas and the oceans, the preservation of which is all the more necessary in a context of climate change.

Coastal areas and oceans pose major environmental and climate challenges. The objective in this area is to act to preserve ecosystems, to develop and share knowledge about the interactions between climate, coastal areas and oceans by involving applied research experts, young people and the general public, and lastly to allow young people to discover coastal areas (field trips, training in maritime careers).

In this context, in 2022 the TotalEnergies Corporate Foundation continued the partnership initiated in 2018 with the National Forestry Office to support projects in coastal areas. It also signed a partnership with the Institut Océanographique Albert 1er, Prince de Monaco, to support a project to raise awareness among college students and educate them on the subject of the environment. It aims to assist teachers and their classes in the discovery and understanding of the issues of ocean preservation and the implementation of a collective project for its protection.

#### DIALOGUE ON CULTURE AND HERITAGE

The slackening of social ties makes young people more vulnerable and regional cohesion more fragile. This fourth area of action aims to strengthen social cohesion and empower young people through culture and heritage by supporting artistic creation with a social impact by and for young people, attributing value to cultural diversity and preserving heritage.

Within this framework, in 2022 the TotalEnergies corporate Foundation supported 15 restoration projects providing employment for young people in France through its partnership with the Fondation du Patrimoine (Heritage Foundation). In the field of artistic and cultural education, 12 partnerships were set up to promote the empowerment and integration of young people as citizens into society. Finally, the TotalEnergies Corporate Foundation was a sponsor of the "Regards sur l'Algérie" season at the Arab World Institute as well as the "Intime et moi" exhibition at Louvre-Lens, curatorship of which was entrusted to a group of young adults in a professional and social reintegration situation.

### 5.9.3.3 MOBILIZATION IN THE FACE OF THE CRISIS IN MYANMAR

In the context of the political and humanitarian crisis in Myanmar, the Company wished that in 2021 a donation equivalent to the taxes it would have to pay to the State be made to humanitarian organizations. Thus, in connection with the donation agreement signed with the World Food Program in 2021, the distribution of food to vulnerable populations on the outskirts of Rangoon and Mandalay continued in 2022. Also in 2022, the Company paid €609,000 to the FXB Foundation to finance two floating clinics on the Irrawaddy River as part of an agreement signed in 2021. An agreement with the Pro Asia Endowment Fund was established to allow the construction of a hospital in Mandalay, completed in 2022.ee

# 5.10 Contractors and suppliers

TotalEnergies' activities generate hundreds of thousands of direct and indirect jobs worldwide. Present in close to 130 countries, the Company works with a network of over 100,000 suppliers of goods and services. In 2022, the Company's purchases of goods and services (excluding petroleum products and vessel chartering by Trading & Shipping) represented approximately $27 billion worldwide. The allocation of expenditures at Company level is approximately 31% for goods (products, materials, etc.) and 69% for services (such as consulting services, materials supply operations, transportation, etc.).

In terms of social and environmental responsibility, the activities of the Company's subcontractors and suppliers are likely to present the same risks as those associated with TotalEnergies' activities. The main risks relate primarily to human rights in the workplace (forced labor, child labor, discrimination, decent work), health and safety and security, corruption, fraud, environment including climate, biodiversity, circular economy and responsible use of natural resources (water, forests).

The Company pays particular importance to working with sustainable suppliers who respect both human rights and the environment, throughout its value chain. The Company expects its suppliers to adhere to the Fundamental principles of purchasing which derive from its Code of Conduct. To that end, the Company has chosen to have the management of its supplier relations coordinated by a dedicated cross-functional entity, TotalEnergies Global Procurement, which is specifically tasked with providing Purchasing services and assisting the Company's entities and sites[1].

## 5.10.1 Fundamental principles of purchasing

The Fundamental principles of purchasing are the foundation for the long-term relationships that the Company wishes to build with its suppliers. TotalEnergies expects its suppliers to comply with these Principles and ensure that their own suppliers and subcontractors also comply with them:

- Principle 1: Respect for human rights at work,
- Principle 2: Protection of health, safety and security at work,
- Principle 3: Action on climate,
- Principle 4: Protection of the environment,
- Principle 5: Prevention of corruption, conflicts of interest and combating of fraud,
- Principle 6: Respect for competition law,
- Principle 7: Promotion of economic and social development.

These principles are derived from the Company's Code of Conduct and uphold the fundamental principles defined in the United Nations Universal Declaration of Human Rights, the fundamental conventions of the International Labor Organization, the UN Guiding Principles on Business and Human Rights, the UN Global Compact, the Voluntary Principles on Security and Human Rights and the OECD Guidelines for Multinational Enterprises.

The Company ensures that its suppliers are aware of and adhere to the Fundamental principles of purchasing. These are available in French and English on the TotalEnergies website (heading sustainability / supply chain) and are regularly used for awareness-raising. During the pre-qualification process, suppliers undertake to comply with these principles. The Company's rules require the Fundamental principles to be systematically included in procurement contracts signed with suppliers. These Fundamental principles of purchasing include an audit clause. TotalEnergies ensures compliance with these Principles by its suppliers through an audit program.

## 5.10.2 Sustainable procurement program

In accordance with its ambition to integrate all aspects of sustainable development at the heart of its strategy, projects and operations, and to set the standard in terms of commitments to the Sustainable Development Goals (SDG), TotalEnergies implements a Sustainable Procurement program.

(1) With the exception of certain entities that retain the management of their supplier relations such as Hutchinson, Saft Groupe, TotalEnergies Renouvelables France, TotalEnergies Electricité et Gaz France, Greenflex and TOTSA TotalEnergies Trading SA. There are certain derogations for specific goods or services.

## PRIORITIES OF THE SUSTAINABLE PROCUREMENT PROGRAM

This program aims to ensure the integration of the Company's four pillars of its sustainable development approach at the heart of the strategy and procurement processes.

To do this, the Sustainable Procurement program defines four priorities:

- Awareness-raising and training of buyers,
- Awareness-raising and mobilization of suppliers,
- Integration in the purchasing process,
- Supplier assessment.

In order to measure the progress made in each of these areas, the Company has set the targets described below.

The implementation of this program is monitored by the Company's governing bodies and a Steering Committee meeting at least once a year.

1. **Buyers' awareness-raising and training**

To effectively integrate the various aspects of sustainable development into procurement, buyers need to be sufficiently trained on these topics and have the resources to implement the Sustainable Procurement program. TotalEnergies has set the goal of training all of the procurement staff on sustainable procurement by end of 2023.

In addition to trainings, numerous awareness-raising initiatives are regularly carried out in order to strengthen the responsible procurement culture within the Company.

2. **Suppliers' awareness-raising and mobilization**

Supplier engagement is key for a sustainable procurement approach. It is necessary to raise awareness and mobilize the Company's suppliers in order to ensure that they are committed to sustainable development. To this end, TotalEnergies has set the goal of mobilizing its 1,300 priority suppliers by the end of 2023 on a platform dedicated to monitoring their sustainability performance. Amongst these 1,300 priority suppliers, 500 are suppliers that account for more than 50% of the Company's expenditures on goods and services, and 800 are identified as representing the highest risks in terms of human rights and environment, in view of their field of activity and the countries where they operate.

In addition, the Company regularly carries out awareness-raising initiatives with its suppliers on these topics.

3. **Integration in the procurement process**

The Company's objective is to strengthen the integration of sustainability at the following stages of the procurement process for each of the procurement categories and segments by the end of 2024:

- Definition of the purchasing strategy: identification of risks

  TotalEnergies identifies, for each procurement category and segment, the main risks associated with human rights and fundamental freedoms as well as environmental risks. This identification of risks makes it possible to adapt the procurement strategy.

- Pre-qualification of suppliers

  The pre-qualification process covers six criteria: administrative, anti-corruption, technical, HSE, financial and sustainability. During this process, suppliers must adhere to the Fundamental Principles of Purchasing and share their sustainability commitments via a questionnaire. If one of the criteria is not met, the supplier is excluded from the pre-qualified panel. A tool monitoring the pre-qualification processes is currently being rolled out within the Company. At the end of 2022, more than 17,000 suppliers were integrated into this tool.

- Evaluation of offers

  TotalEnergies integrates sustainable development aspects into the assessment of suppliers during calls for tenders.

- Contracting

  The Company's rules require that the Fundamental principles of procurement are systematically included in procurement contracts signed with suppliers. These Principles include an audit clause.

4. **Suppliers' evaluation**

The Company's objective is to assess the sustainability performance (human rights and working conditions, environment and climate) of its 1,300 priority suppliers by the end of 2025, (and then every 3 years), using assessments covering all these aspects.

In addition, the Company follows the maturity of 400 suppliers representing 70% of GHG emissions related to the Company's purchases of goods and services, in order to ensure that they are well committed to reducing their emissions. To this end, the Company has set the following target: at least 90% of these 400 suppliers will have adopted emission reduction targets by the end of 2025.

## ACHIEVEMENTS IN 2022

1. **Buyers' awareness-raising and training**

In July 2022, TotalEnergies launched its first responsible procurement training course for buyers. More than 455 of them have already completed this e-learning, (*i.e.*, 32% of buyers) at the end of 2022.

In addition, all new employees of TotalEnergies Global Procurement receive a training which includes a section on sustainable procurement, presenting the Fundamental principles of purchasing, and a training on anti-corruption rules. Awareness webinars on specific topics also took place in 2022, such as on climate (500 buyers) and human rights (300 buyers). A quarterly newsletter on sustainable procurement for the Company's procurement population (approximately 1,400 people) was also launched and several forums were organized to regularly communicate the progress on the Sustainable Procurement program to all Company's buyers.

2. **Suppliers' awareness-raising and mobilization**

In June 2022, TotalEnergies set up a platform dedicated to monitoring supplier sustainability performance. More than 500 of the 1,300 priority suppliers invited have already joined this platform at the end of 2022.

In February 2022, the Company completed the update of the Fundamental principles of purchasing to more precisely detail its requirements regarding human rights, climate, biodiversity, circular economy and responsible use of natural resources (water, forests). In May 2022, the Company published a Practical Guide on Human Rights at Work for suppliers, available on the TotalEnergies website (heading sustainability / supply chain). The *Suppliers Day* in November 2022 - an event bringing together nearly 200 representatives of the Company's strategic suppliers - focused on sustainable development. The Chairman and Chief Executive Officer and two members of the Executive Committee emphasized the Company's ambition and the commitments towards sustainability expected from suppliers. This event was also the opportunity to give a *Sustainability Award* for the first time to one of the Company's suppliers.

3. **Integration in the procurement process**

In 2022, TotalEnergies updated its Purchasing Directive to develop sustainability and climate aspects. The Company also updated its purchasing risk map, completed by indicators on human rights and environmental risks by country. In 2022, the Company also defined a "by segment" sustainable development methodology, which sets out its objectives for each of the goods and services procurement segments.

4. **Suppliers' evaluation**

Since 2016, the Company requires an independent external service provider to carry out human rights and working conditions audits of its suppliers. Usually, the audit includes an on-site visit, a documentary review and interviews with workers. The audits target suppliers most at risk regarding human rights, identified by cross-referencing the CSR risks mapping with human rights country-related risk indicators. An annual audit plan allows the Company to audit some of these suppliers each year. These audits measure respect for human rights in the workplace, and cover topics including child labor, forced labor, discrimination, freedom of association and the right to collective bargaining, working conditions (overtime, days off) and workplace health and safety. In the event of shortcomings, the supplier must present an action plan to the TotalEnergies teams and then undergo a verification audit.

Between 2016 and 2018, the Company audited approximately 30 suppliers per year in terms of human rights and working conditions, and 80 to 100 between 2019 and 2021. In 2022, 200 suppliers were audited and, in total, 430 high-risk suppliers in terms of human rights have been audited since 2016. These audits covered 160,000 people in 77 countries. For 181 suppliers, it was necessary to implement action and monitoring plans, 53 of which led to complete improvements (validated by a follow-up audit) - positively impacting the working conditions of more than 14,000 of their employees. 128 suppliers are being monitored. A 2023 audit plan, targeting 300 suppliers, was defined in 2022, with the target to achieve 1,300 suppliers audited by the end of 2025.

In 2022, TotalEnergies defined a new broader audit framework to cover, in addition to social and human rights issues, environmental and climate issues. 9 test audits were carried out in order to be able to deploy this approach as from the 2023 audit plan.

Lastly, the Company assessed the 400 suppliers representing 70% of the Company's GHG emissions related to the purchase of goods and services, in order to ensure that they were well committed to reducing their GHG emissions. At the end of 2022, 62% of the 345 suppliers that responded adopted GHG emission reduction targets.

## 5.10.3 Specific focuses

### MEASUREMENT OF EMISSIONS FROM PROCUREMENT OF GOODS AND SERVICES

In 2021, the Company made an initial estimate of the emissions related to its procurement of goods and services, limited to the scope of purchases of TotalEnergies Global Procurement. In 2022, the Company updated this estimate by expanding it to include the purchases of Hutchinson and Saft Groupe. According to this study, carried out with the help of the specialized firm EcoAct, the emissions related to the purchase of goods and services represented approximately 10 Mt/y $CO_2e$. This estimate is updated and refined each year.

In addition, the Company integrates climate issues into its procurement decisions. The cost of carbon emissions is integrated into the calculation of the total cost of acquisition for the highest emission categories (marine logistics, rotating machines, etc.).

### PROCUREMENT FROM THE ADAPTED AND PROTECTED SECTOR

Lastly, the Company pays special attention to the adapted and protected sector (sheltered employment sector for disabled workers). TotalEnergies is a member of the Pas@Pas ("Step by Step") organization and provides its buyers with an online tool that can be used to identify potential suppliers and service providers in the sheltered employment sector by region and category. In 2022, the Company provided its buyers with a guide to support them when purchasing from the adapted sector as well as an awareness-raising webinar with more than 100 participants. In 2022, the Company also joined the Collective for a More Inclusive Economy and participated in the Inclusive Purchasing Forum to connect the Company's buyers with companies in the adapted sector. TotalEnergies was also on the jury of Handiformelles, an event rewarding innovative projects carried out by EA-ESATs (adapted enterprises and vocational rehabilitation centers) and participated in the "TrophésH'Up", an event rewarding entrepreneurs with disabilities. In France, the Company's purchases from this sector represented approximately €3.8 million in 2021.

### MINERALS

The origin, extraction and refining conditions and the use of certain minerals, ores and raw materials are the subject of particular attention, given the potential risks to human rights and the environment. In 2022, TotalEnergies conducted an internal study to identify the Company's priorities in this area. This study, based on a materiality analysis and a risk analysis, identified three priorities: cobalt, polysilicon and conflict minerals (gold, tungsten, tin, tantalum).

- Cobalt: As cobalt can be used in the manufacture of certain batteries, Saft Groupe has been conducting an annual campaign since 2021 to collect information from its suppliers. Saft Groupe relies on the Extended Minerals Reporting Template (EMRT) provided by the *Responsible Minerals Initiative*® (RMI®) to identify the processing units in its supply chain and the country of origin of the cobalt ores. As part of a progress-led approach, Saft Groupe is also a member of the *Global Battery Alliance* (GBA), within the *World Economic Forum* (WEF), a global platform for establishing and collaborating on a sustainable battery value chain.
- Polysilicon: Polysilicon is used in the manufacture of solar panels. TotalEnergies Global Procurement carries out traceability audits upstream of the supplier's selection or orders these audits from an independent third party. TotalEnergies has joined a pool of US developers who jointly commission and share traceability audits. At year-end 2022, six suppliers, with whom the Company works, were audited. In order to improve the traceability of polysilicon, TotalEnergies Global Procurement has taken the initiative to launch a blockchain pilot. It has selected a service provider to carry out this pilot (Circulor) and finances the development of this prototype.

- Conflict minerals: The qualification process identifies suppliers using "conflict minerals" for the Company's purchases. Thus, pursuant to Rule 13p-1 of the U.S. Securities Exchange Act of 1934, as amended, which implemented certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, since 2014, TotalEnergies has filed with the United States Securities and Exchange Commission (SEC) an annual document relating to "conflict minerals" sourced from the Democratic Republic of the Congo or neighboring countries. This document indicates whether, during the preceding calendar year, any such minerals were necessary for the operation or for the production of a product manufactured by TotalEnergies SE or one of its consolidated companies or contracted by TotalEnergies SE or one of its consolidated companies to be manufactured. The purpose of this regulation is to prevent the direct or indirect funding of armed groups in central Africa. For more information, please refer to TotalEnergies' most recent publication, available on the TotalEnergies website or sec.gov.

  As conflict minerals may potentially be present in the electrical and electronic components used in battery manufacturing, Saft Groupe conducts an annual campaign to collect information from its suppliers. Saft Groupe relies on the Conflict Minerals Reporting Template (CMRT) provided by the Responsible Minerals Initiative® (RMI®) to determine the presence of conflict minerals in its supply chain and to identify the processing units for these minerals that are likely to participate in it and the country of origin of the ores. Saft Groupe became a member of the RMI in 2022.

## TotalEnergies POOL PME

Since 2019, TotalEnergies has coordinated the *TotalEnergies Pool PME* program to help a dozen or so of the Company's small and medium-sized suppliers grow their business over 18 months. During this time, these companies are introduced to other major groups, free of charge, and receive guidance for their executives and support in their international growth through TotalEnergies' People & Social Engagement France directorate. In September 2020, TotalEnergies received a Trophées Décision Achats CSR gold award in recognition of this initiative. In September 2022, the third edition of the program was launched with 11 new winners.

## SUPPLIER RELATIONS

Since 2010 TotalEnergies has been a signatory to the French Economy and Finance Ministry's Responsible Supplier Relations Charter, which aims to develop sustainable and balanced relations between customers and suppliers. In 2021, the Company signed the new version of this Charter.

The Company ensures that contractual conditions are negotiated in an equitable manner with its suppliers. TotalEnergies' Code of Conduct restates this requirement and the three essential principles that guide TotalEnergies' relations with its suppliers: dialogue, professionalism and compliance with commitments.

Finally, as part of the development of best practices in business relations, an email address (mediation.fournisseurs@totalenergies.com) available on TotalEnergies' website allows the Company's suppliers to contact the dedicated internal mediator. Its mission is to facilitate relations between the Company and its French and international suppliers. The general purchasing terms and conditions also mention the possibility of recourse to mediation.

## LOCAL ECONOMIC DEVELOPMENT

TotalEnergies is committed to local economic development. In this respect, insofar as operational constraints allow, the Company uses local employment and subcontracting and also contributes to the development of local skills.

For the Company's major industrial projects, a local content development and management approach has been structured to strengthen the positive impact on local employment and economic activity notably by involving main suppliers. Call for tenders include local content criteria aimed at ensuring at least equal opportunity for local subcontractors, or, depending on the local context, quantified contractual obligations (use of local subcontractors, employment, investment in local capacity) for subcontractors. Studies aiming at determining the capacity of suppliers have been carried out or are underway for new major projects in countries such as South Africa and Iraq, as well as for offshore wind power projects.

To facilitate performance measurement, a web-connected digital reporting solution has been developed and is currently being deployed. It is intended to calculate the impact of local purchases for major projects in terms of value creation and jobs created. An online training (available as from January 2022) is expected to allow the deployment of best practices for sustainably developing local content.

## 5.10.4 Payment terms

The payment terms of invoices from suppliers and customers of TotalEnergies SE as of December 31, 2022, presented in the table below pursuant to the provisions of Article D. 441-4 of the French Commercial Code, are established within the boundaries of the parent company, and not TotalEnergies and therefore include invoices issued and received between TotalEnergies SE and its subsidiaries.

| As of December 31, 2022 (M€) | SUPPLIERS: Invoices received and outstanding at the closing date of the previous fiscal year | | | | | | CUSTOMERS: Invoices issued and outstanding at the closing date of the previous fiscal year | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 day (provisional) | 1 to 30 days | 31 to 60 days | 61 to 90 days | 91 days or more | Total (1 day or more) | 0 day (provisional) | 1 to 30 days | 31 to 60 days | 61 to 90 days | 91 days or more | Total (1 day or more) |
| **(A) Late payment brackets** | | | | | | | | | | | | |
| Number of invoices involved | 358 | | | | | 412 | 242 | | | | | 11,573 |
| Total value of invoices involved (including tax) | 11 | 0 | 0 | 0 | 4 | 4 | 514 | 114 | 241 | 56 | 261 | 672 |
| Percentage of the total value of purchases for the fiscal year (including tax) | 0.2% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | | | | | | |
| Percentage of sales for the fiscal year (including tax) | | | | | | | 7.7% | 1.7% | 3.6% | 0.8% | 3.9% | 10.0% |
| **(B) Invoices excluded from (A) relating to disputed or unrecorded liabilities and receivables** | | | | | | | | | | | | |
| Number of invoices excluded | | | | | | None | | | | | | None |
| Total value of invoices excluded | | | | | | None | | | | | | None |
| **(C) Reference payment terms used (contractual or legal – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)** | | | | | | | | | | | | |
| Payment terms used for late payment penalties | | | | | | Legal payment terms | | | | | | Legal payment terms |

A significant portion of the invoices issued by TotalEnergies SE relates to internal services re-invoiced to the companies of the Company. Most of these companies are included in the scope of consolidation. Thus, 88% of the outstanding customer invoices due at the balance sheet date (i.e. 91% of the total amount including VAT) relate to consolidated companies.

In order to present only the invoices issued to non-consolidated companies or third parties, the table below has been restated for invoices issued and received by consolidated companies.

| As of December 31, 2022 (M€) | SUPPLIERS (non-consolidated compagnies or third parties): Invoices received and outstanding at the closing date of the previous fiscal year | | | | | | CUSTOMERS (non-consolidated compagnies or third parties): Invoices issued and outstanding at the closing date of the previous fiscal year | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 day (provisional) | 1 to 30 days | 31 to 60 days | 61 to 90 days | 91 days or more | Total (1 day or more) | 0 day (provisional) | 1 to 30 days | 31 to 60 days | 61 to 90 days | 91 days or more | Total (1 day or more) |
| **Late payment brackets** | | | | | | | | | | | | |
| Number of invoices involved | 323 | | | | | 407 | 49 | | | | | 1,395 |
| Total value of invoices involved (including tax) | 6 | 0 | 0 | 0 | 4 | 4 | 6 | 11 | 14 | 2 | 35 | 62 |
| Percentage of the total value of purchases for the fiscal year (including tax) | 0.2% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | | | | | | |
| Percentage of sales for the fiscal year (including tax) | | | | | | | 4.0% | 6.9% | 8.8% | 1.3% | 22.1% | 39.1% |

# 5.11 Reporting scopes and methodology

## 5.11.1 Frameworks

The Company's reporting is based:

- for workforce indicators, on a practical handbook on the Company's workforce reporting protocol and methodology,
- for safety indicators, on a company rule on event and statistical reporting,
- for environmental and climate change-related indicators, on a Company reporting rule, together with segment-specific instructions,
- for societal indicators, on Company instructions.

These documents are available to all subsidiaries of the Company and can be consulted at corporate headquarters, in the relevant divisions.

## 5.11.2 Scopes

**Workforce and Health reporting** is based on three surveys: the Global Workforce Analysis, the complementary Worldwide Human Resources Survey and the Compensation Survey. Three centralized tools (Sogreat, HR4U and the Company compensation questionnaire) are used to aid in those surveys. In addition, the Company's Health Steering Committee collected given health data covering a scope of 129 subsidiaries with a total of 53,322 employees at year-end 2022.

The Global Workforce Analysis is conducted once a year, on December 31, in all the controlled, consolidated companies (refer to Note 18 to the Consolidated Financial Statements, point 8.7 of chapter 8) having employees, *i.e.*, 326 companies in 93 countries at December 31, 2022. The survey mainly covers worldwide workforces, hiring under permanent and fixed-term contracts (non-French equivalents of 'contrats à durée déterminée' or 'indéterminée') and employee turnover at the global level. It offers a breakdown of the workforce by gender, professional category (managers and other employees and non-French equivalents), age and nationality.

The Worldwide Human Resources Survey (WHRS) is an annual survey that comprises 275 workforce indicators, including the health indicators described in point 5.3. The indicators are selected in cooperation with the relevant liaisons and cover major components of the Company Human Resources policy, such as mobility, talent development, training, work conditions, workplace dialog, deployment of the Code of Conduct, human rights and health. The survey covers a representative sample of the consolidated scope. The data published in this document is extracted from the most recent survey, carried out in December 2022 and January 2023; 132 companies in 52 countries, representing 90.2% of the consolidated Company workforce (91,378 employees) responded to all the topics. For the health indicators, responses were collected across a broader scope of 146 companies in 52 countries, representing 91.3% of the consolidated Company workforce.

The Compensation Survey is carried out once a year with a representative sample of the consolidated scope. The data published in this document are taken from the most recent survey, carried out in July 2022 on data extrapolated at December 31, 2022: 132 companies in 52 countries, representing 90.2% of the consolidated Company workforce (91,378 employees) responded to the survey.

The 'Socle Social Commun' or 'Common Social Basis' (whereby all employees have the same rights) brings together the following in France: TotalEnergies SE, Elf Exploration Production, TotalEnergies Marketing Services, TotalEnergies Marketing France, TotalEnergies Additives and Fuels Solutions, TotalEnergies Lubrifiants, TotalEnergies Fluids, TotalEnergies Raffinage Chimie, TotalEnergies Petrochemicals France, TotalEnergies Raffinage France, TotalEnergies Global Information Technology Services, TotalEnergies Global Financial Services, TotalEnergies Global Procurement, TotalEnergies Global Human Resources Services, TotalEnergies Learning Solutions, TotalEnergies Facilities Management Services, TotalEnergies Consulting and TotalEnergies OneTech.

**Environmental and climate change reporting** covers all activities, sites and industrial assets in which TotalEnergies SE, or one of the companies it controls exclusively, is the operator, i.e., it either operates or contractually manages the operations ("operated domain"). Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions[1]. The Company subsidiaries that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on environmental indicators.

Greenhouse gas (GHG) emissions "based on the Company's equity interest" are published for the "equity interest domain". This scope, which is different from the "operated domain," includes all the assets in which the consolidated subsidiaries have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated non-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because not material from a financial standpoint.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds (refer to section entitled "Consolidation method").

**Safety reporting** covers employees of subsidiaries controlled exclusively by the Company, employees of contractors working on sites, assets or activities operated by those subsidiaries and employees of transportation companies under long-term contracts. Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions[2]. Subsidiaries not consolidated because they are not material from a financial standpoint are consolidated in the reporting on safety indicators.

**Reporting on societal indicators** covers the subsidiaries of the EP, RC and M&S segments that are part of the One MAESTRO scope of deployment (refer to point 5.11.4 of this chapter) with an operational activity, i.e. excluding the commercial offices of M&S, the trading activities of RC and the EP subsidiaries that had no exploration or production activity in 2021.

(1) As an exception, the scope of reporting on environmental and climate change-related indicators does not include jointly controlled companies Naphtachimie (RC), BASF TOTAL Petrochemicals (RC), Appryl (RC); and approximately 80 jointly controlled assets operated by third parties in Exploration & Production.
(2) As an exception, the scope of reporting on safety indicators does not include jointly controlled companies Naphtachimie (RC), BASF TOTAL Petrochemicals (RC), Appryl (RC); and some 80 jointly controlled assets operated by third parties in EP.

Compared to the scope of financial consolidation, this corresponds to fully consolidated companies of the EP, RC and M&S segments, with some exceptions[1]. It also includes subsidiaries of the EP, RC and M&S segments corresponding to that scope that are not fully consolidated because they are not material from a financial standpoint.

**Reporting on the Voluntary Principles on Security and Human Rights** (VPSHR) covers the Company entities and subsidiaries that are particularly exposed to the disproportionate use of force. An annual campaign is used to send auto-diagnosis and risk assessment tools to these entities. This internal process has been in place since 2016. The results obtained are consolidated by the Corporate Security Division. The 2020 campaign specifically targeted 103 countries and the response rate was 93%.

### CONSOLIDATION METHOD

For the scopes defined above, the workforce, safety and societal indicators are fully consolidated.

For the "operated domain" scope, the environmental indicators are fully consolidated. For the "equity interest domain" scope, greenhouse gas emissions are consolidated based on the Company's equity interest in the assets or its share of production for oil and gas production assets. For non-operated assets, TotalEnergies relies on information provided by its partner operators. In cases where this information is not available, estimates are made based on past data or budget data or by analogy with similar assets.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds. These thresholds were calibrated in order to report 99% of greenhouse gas emissions and 95% of the Company's other emissions observed or modeled based on data related to financial year 2021. In addition, no site accounting for more than 2% of an indicator excludes this indicator from its reporting.

### CHANGES IN SCOPE OF CONSOLIDATION

Workforce indicators are calculated on the basis of the consolidated scope of the Company as of December 31, 2021. These workforce data are presented on the basis of the operational business segments identified in the 2021 Consolidated Financial Statements.

For environmental and climate change-related indicators, acquisitions are recognized from the acquisition date whenever possible, or otherwise from January 1 of the current year or the following year. Some acquisitions of 2022 will be included in the reporting published in 2024 on financial year 2023[2]. Any facility sold before December 31 is excluded from the Company's reporting scope for the current year[3].

Regarding safety indicators, acquisitions are recognized in the same year as soon as possible or from January 1 of the following year. All facilities sold are recognized up to the date of the sale.

Regarding societal indicators, subsidiaries of the EP, RC and M&S segments are recognized as soon as possible and in any case within 36 months of acquisition.

## 5.11.3 Principles adopted

### INDICATOR SELECTION AND RELEVANCE

The data published in this statement are intended to inform stakeholders about the Company's annual results in social and environmental responsibility. The environmental indicators include the Company's performance indicators with reference made, to a large extent, to the IPIECA reporting guidelines, updated in 2020.

### METHODOLOGICAL SPECIFICITIES

The methodologies may be adjusted, in particular in light of the diversity of the Company's activities, the integration of newly acquired entities, the absence of regulations or standardized international definitions, practical procedures for collecting data, or changes in methods.

Restatement of previous years' published data is limited to changes in methodology.

### CONSOLIDATION AND INTERNAL CONTROL

The workforce, environmental and climate change-related, societal and health and safety data is consolidated and checked by each operational unit and business segment before being checked at Company level. Data pertaining to certain specific indicators is calculated directly by the business segments. These processes undergo regular internal audits.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

(1) As an exception, the scope of reporting for societal indicators of the EP, RC and M&S segments does not include the sales offices of M&S, the trading activities of RC, the polymer factory in Zhenjiang, China, EP operations with no exploration or production activity in 2022, subsidiaries not applying One MAESTRO in these segments, i.e. Polyblend (RC), Synova (RC), Sobegi (RC), Hutchinson (RC) and the Zeeland Refinery (RC) as well as the consolidated companies over which the Company does not have exclusive control, i.e. Naphtachimie (RC), BASF TOTAL Petrochemicals (RC), Appryl (RC), and approximately 80 jointly controlled assets operated by third parties in EP.
(2) As an exception, the subsidiary Clearway Energy Group (iGRP segment), which was acquired in 2022, is not included in the climate change reporting.
(3) Except for Block 14 in Angola, the subsidiary in Myanmar and Novatek in Russia (EP segment), which were included in environmental or climate change reporting until their date of sale or deconsolidation (Novatek).

## 5.11.4 Details of certain indicators

### WORKFORCE DEFINITIONS AND INDICATORS

Outside of France, "management staff" refers to any employee whose job level is the equivalent of 300 or more Hay points. Permanent contracts correspond to 'contrats à durée indéterminée' (CDI) and fixed-term contracts to 'contrats à durée déterminée' (CDD), according to the terminology used in the Company's workforce reporting.

### SAFETY DEFINITIONS AND INDICATORS

**TRIR** (Total Recordable Injury Rate): number of recorded injuries per million hours worked.

**LTIR** (Lost Time Injury Rate): number of lost-time injuries per million hours worked.

**Employees of contractors:** any employee of a contractor working at a site that is part of the safety reporting scope or assigned by a transportation company under a long-term contract.

**Tier 1 and Tier 2:** indicator of the number of loss of primary containment events with more or less significant consequences, as defined by API 754 (for downstream) and IOGP 456 (for upstream) standards - Excluding acts of sabotage and theft.

**Near miss:** sudden event which in slightly different circumstances could have resulted in an accident. Near misses have a potential but no actual severity.

Incidents and near misses are assessed in terms of actual or potential severity based on a scale that consists of six levels. Events with an actual or potential severity level of four or more are considered serious.

### ENVIRONMENTAL OR CLIMATE CHANGE-RELATED DEFINITIONS AND INDICATORS

**Blue hydrogen:** refer to Low-carbon or clean hydrogen.

**Life cycle Carbon intensity of the products sold:** this indicator measures the average GHG emissions of energy products used by the Company's customers during their lifecycle (i.e., Scope 1+2+3), from production in TotalEnergies facilities to end use by customers. This indicator takes into account:

- for the numerator:
  - emissions connected to the production and conversion of energy products used by the customers of the Company,
  - emissions connected to the use of sold products. For each product, stoichiometric emission factors[1] are applied to these sales to obtain an emission volume. Non-energy use products (bitumen, lubricants, plastics, etc.) are not taken into account,
  - negative emissions stored through the use of CCUS and natural carbon sinks.
- for the denominator: the quantity of energy sold. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

**COVID-19 effect**: the COVID-19 effect is assessed on the basis of a 10% decrease of petroleum products demand in 2021 compared with their structural demand. In 2022, this effect only applied to Scope 3 emissions during the first half of the year.

**Energy mix of sales**: the mix is calculated by taking into account electricity sales, marketable gas production from Exploration & Production and LNG sales, sales of petroleum products (from Marketing & Services and bulk refining sales) and distribution of biofuels, biomass and $H_2$ sales. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

**Freshwater:** water with salinity below 2 g/l.

**GEEI** (Global Energy Efficiency Index): a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business reduced to base 100 in 2010 and consolidated with a weighting based on each business's net primary energy consumption. The scope of the indicator relates to the "operated domain" of the Company's upstream oil and gas activities and the Refining & Chemicals segment, with the exception of Hutchinson. It does not include facilities for power generation from renewable sources or natural gas, such as combined-cycle natural gas power plants.

**GHG:** the six greenhouse gases in the Kyoto protocol, namely $CO_2$, $CH_4$, $N_2O$, HFCs, PFCs and $SF_6$, with their respective GWP (Global Warming Potential) as described in the 2007 IPCC report. HFCs, PFCs and $SF_6$ are virtually absent from the Company's emissions or are considered as non-material, and are therefore no longer counted with effect from 2018.

**GHGs based on the Company's equity interest:** greenhouse gases emitted by the sites and activities that are part of the Company's "equity interest domain" (refer to point 5.11.2, "Scopes"). They are calculated on a pro rata basis according to the Company's share in the entity or the production (in the case of the Company's upstream oil & gas activities).

**Green hydrogen:** refer to Low-carbon or clean hydrogen.

**Hydrocarbon spills with an environmental impact:** spills with a volume greater than 1 barrel (≈159 liters) are counted. These are accidental spills of which at least part of the volume spilled reaches the natural environment (including non-waterproof ground). Spills resulting from sabotage or malicious acts are excluded. Spills that do not affect the environment are also excluded.

**Intensity of $CO_2$ equivalent emissions:** Scope 1+2 GHG emissions from the facilities operated by the Company for its upstream oil & gas activities (kg) divided by the Company's operated hydrocarbon production in barrels of oil equivalent (boe).

**Intensity of methane emissions:** the volume of methane emissions divided by the volume of commercial gas produced, from all facilities operated by the Company (oil and/or gas) for its upstream oil & gas activities. Gas facilities are facilities for which the sum of exported gas production and fuel gas (in boe) represents more than 50% of the operated production (exports + fuel gas).

**Low-carbon or clean hydrogen:** regroups blue hydrogen (hydrogen produced in particular from natural gas via the steam reforming process associated with a capture and storage (CCS) process of the $CO_2$ emissions presenting a carbon footprint lower than 36.4 g $CO_2$/MJ) and green hydrogen (hydrogen produced from renewable electricity via the water electrolysis process).

**Non-routine flaring:** flaring other than routine flaring and safety flaring occurring primarily during occasional and intermittent events.

**Oil spill preparedness:**

- an oil spill scenario is deemed "significant" when its consequences are at a minimum on a small scale and have a limited impact on the environment (approximately several hundred meters of shores impacted or several tons of hydrocarbons involved),

(1) The emission factors used are taken from a technical note of the CDP: *Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies.*

- an oil spill preparedness plan is deemed operational if it describes the alert mechanisms, if it is based on pollution scenarios that stem from risk analyses and if it describes mitigation strategies that are adapted to each scenario; if it defines the technical and organizational resources, internal and external, to be deployed; and lastly if it indicates the items to be addressed in order to begin monitoring the environmental impact of the pollution,
- proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities: are included for this indicator sites that have performed an exercise during the year on the basis of one of the scenarios identified in the oil spill preparedness plan up to the equipment deployment stage as well as sites that have been prevented from carrying out an exercise by a competent authority (e.g. administration, port authority, local fire brigade).

**Oil & gas facilities:** facilities of the Company except combined-cycle natural gas power plants.

**Routine flaring:** flaring during normal production operations conducted in the absence of sufficient facilities or adequate geological conditions for the reinjection, on-site utilization or sale of the gas produced (as defined by the working group of the Global Gas Flaring Reduction program as part of the World Bank's Zero Routine Flaring initiative). Routine flaring does not include safety flaring.

**Safety flaring:** flaring to ensure the safe performance of operations conducted at the production site (emergency shutdown, safety-related testing, etc.).

**Scope 1 GHG emissions:** direct emissions of greenhouse gases from sites or activities that are included in the scope of reporting for climate change-related indicators. Direct biogenic $CO_2$ emissions are excluded from Scope 1 and reported separately.

**Scope 2 GHG emissions:** indirect emissions attributable to brought-in energy (electricity, heat, steam), net from potential energy sales, excluding purchased industrial gases ($H_2$). If not stated otherwise, TotalEnergies reports Scope 2 GHG emissions according to the market-based method defined by the GHG Protocol.

**Scope 3 GHG emissions:** other indirect emissions. If not stated otherwise, TotalEnergies reports Scope 3 GHG emissions, category 11, which correspond to indirect GHG emissions related to the use of energy products by customers, i.e. from their combustion to obtain energy. The Company follows the oil & gas industry reporting guidelines published by IPIECA, which comply with the GHG Protocol methodologies. In order to avoid double counting, this methodology accounts for the largest volume in the oil, biofuels and gas value chains, i.e. the higher of the two production volumes or sales to end customers. For TotalEnergies, in 2022, the calculation of Scope 3 GHG emissions for the oil and biofuels[1] value chains considers products sales (higher than production) and for the gas value chain, marketable gas production (higher than gas sales either as LNG or as part of direct sales to B2B/B2C customers). A stoichiometric emission (oxidation of molecules to carbon dioxide) factor is applied to these sales ro production to obtain an emission volume.

**Upstream oil and gas activities:** the Company's upstream oil and gas activities include the oil and gas exploration and production activities conducted by the Exploration & Production and Integrated Gas, Renewables & Power segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

**Water consumption:** volume of water (fresh, brackish or sea water) taken that is not discharged into the environment or to a third party.

**Waste:** all waste is counted, with the exception of drilling debris, mining cuttings and polluted soil at inactive sites, which are counted separately.

## OTHER DEFINITION

**One MAESTRO** (Management and Expectations Standards Toward Robust Operations): the Company's operational Health, Safety, Environment and Societal reference framework. This reference framework applies to companies controlled exclusively by TotalEnergies with the following exceptions: subsidiaries acquired for less than three years ago and subsidiaries covered by an audited reference framework of their own, namely Hutchinson (RC), Zeeland Refinery (RC), Polyblend (RC), Sobegi (RC), Synova (RC), Saft Groupe (iGRP), TEP Barnett (iGRP) and SunPower (iGRP).

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

(1) The abatement rates applied to the emissions of biofuels compared to equivalent fossil fuels are in line with the minimums required by European regulations (REDII). An average value of approximately -55% is used in the calculation of the carbon intensity indicator.

# 6

# TotalEnergies and its shareholders

# 6.1 Listing details

## 6.1.1 Listing

**Stock exchanges and markets**

- Paris (Euronext Paris);
- Brussels (Euronext Brussels);
- London (London Stock Exchange); and
- New York (New York Stock Exchange or NYSE).

**Codes (Euronext)**

| ISIN | FR0000120271 |
|---|---|
| Reuters | TTEF.PA |
| Bloomberg | TTE FP |
| Ticker | TTE |
| LEI | 529900S21EQ1BO4ESM68 |

**Main indices as of December 31, 2022**

| Index | Weighting in the index |
|---|---|
| CAC 40 | 9.93% (2nd) |
| Euro Stoxx 50 | 5.42% (3rd) |
| Stoxx Europe 50 | 3.38% (9th) |

Sources: Euronext and Stoxx.

**Market capitalization as of December 31, 2022[1]**

| Market | Market capitalization | Closing price |
|---|---|---|
| Euronext | €153.6 billion | €58.65 |
| NYSE | $162.6 billion | $62.08 |

**Market capitalization on Euronext Paris and in the Eurozone as of December 31, 2022[2]**

TotalEnergies SE is the third-largest market capitalization on the Euronext Paris regulated market and the fourth-largest capitalization of the Euro Stoxx 50.

**Free float**

As of December 31, 2022, the free float factor determined by Euronext Paris for calculating the weight of TotalEnergies SE in the CAC 40 was 95%. The free float factor determined by Stoxx for calculating the weight of TotalEnergies SE in the Euro Stoxx 50 was 100%[3].

**Par value**

€2.50.

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

## 6.1.2 Share performance

### 6.1.2.1 CHANGE IN SHARE PRICES BETWEEN JANUARY 1 AND DECEMBER 31, 2022

The change in TotalEnergies' share price in 2022, compared with that of the share prices of its main peers listed in Europe and the United States, is shown in the following tables:

**In Europe**

*(% calculated on the basis of the closing price in local currency)*

| TotalEnergies (euro) | 31.41% |
|---|---|
| Shell (euro) | 37.13% |
| BP (pound sterling) | 43.69% |
| ENI (euro) | 8.72% |

Source: Bloomberg.

**In the United States (American Depositary Receipts prices for European companies)**

*(% calculated on the basis of the closing price in US$)*

| TotalEnergies | 25.52% |
|---|---|
| ExxonMobil | 80.26% |
| Chevron | 52.95% |
| Shell | 31.22% |
| BP | 31.17% |
| ENI | 3.65% |

Source: Bloomberg.

(1) Based on a share capital composed of 2,619,131,285 shares as of December 31, 2022.
(2) Source: Bloomberg.
(3) Source: Stoxx.

### 6.1.2.2 SHAREHOLDER'S ANNUAL RETURN

€1,000 invested in TotalEnergies shares by an individual residing in France, assuming that the dividends are reinvested in TotalEnergies shares, would have generated the following returns as of December 31, 2022 (excluding tax and social withholding):

| | Shareholder's annual return | | Value as of December 31, 2022 of €1,000 invested | |
|---|---|---|---|---|
| **Investment term** | **TotalEnergies** | **CAC 40[a]** | **TotalEnergies** | **CAC 40** |
| 1 year | 41.50% | (6.73)% | 1,414 | 933 |
| 5 years | 11.60% | 6.97% | 1,732 | 1,401 |
| 10 years | 10.44% | 9.18% | 2,700 | 2,407 |
| 15 years | 6.15% | 4.45% | 2,447 | 1,921 |

(a) CAC 40 prices taken into account to calculate the annual returns include all dividends distributed by the companies that are in the index.
Sources: Euronext Paris, Bloomberg.

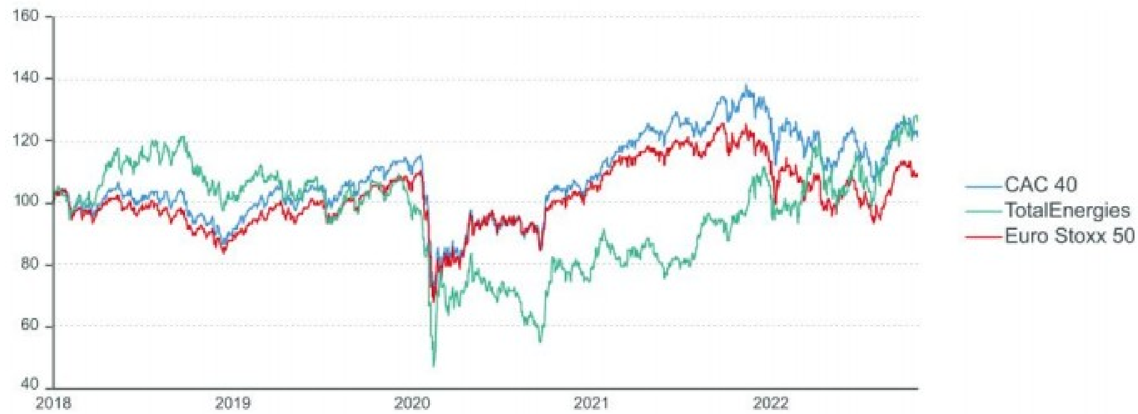
### 6.1.2.3 MARKET INFORMATION SUMMARY

| **TotalEnergies share prices over the 2018-2022 period** *(in €)* | **2018** | **2019** | **2020** | **2021** | **2022** |
|---|---|---|---|---|---|
| Highest (during trading session) | 56.82 | 52.27 | 50.93 | 45.55 | 60.25 |
| Lowest (during trading session) | 43.09 | 42.65 | 21.12 | 33.91 | 42.86 |
| Last price of the year (closing) | 46.18 | 49.20 | 35.30 | 44.63 | 58.65 |
| Average of the last 30 trading sessions (closing) | 47.96 | 48.32 | 36.34 | 43.53 | 57.79 |

| **Trading volume** *(average per session)* | | | | | |
|---|---|---|---|---|---|
| Euronext Paris[a] | 6,199,835 | 5,549,490 | 8,420,407 | 6,716,594 | 7,063,697 |
| NYSE[b] | 1,855,274 | 1,770,853 | 2,965,225 | 2,155,131 | 2,426,647 |

(a) Number of TotalEnergies shares traded.
(b) Number of American Depositary Receipts (ADR) traded.
Sources: Euronext Paris, NYSE.

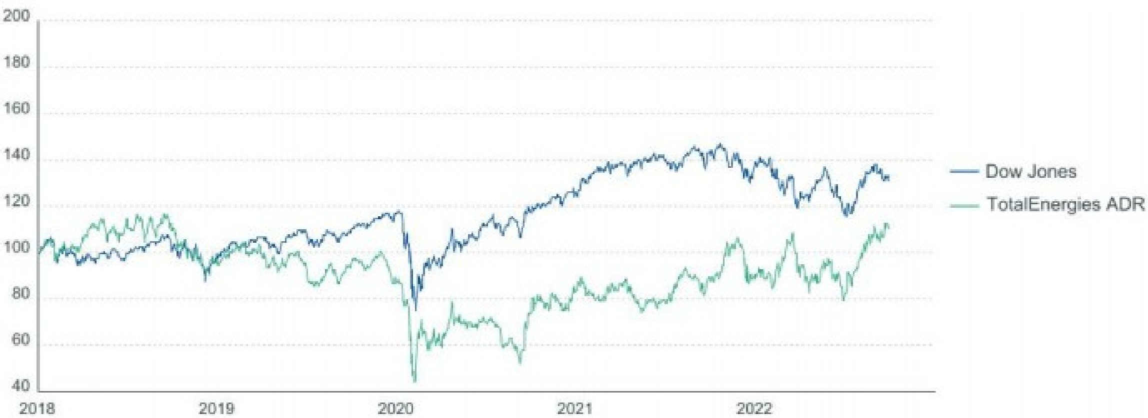
**Change in TotalEnergies share price at closing on Euronext Paris (2018-2022)**




Base 100 at 01/01/2018.

Sources: Euronext Paris, Bloomberg.

**Change in TotalEnergies ADR price at closing on NYSE (2018-2022)**

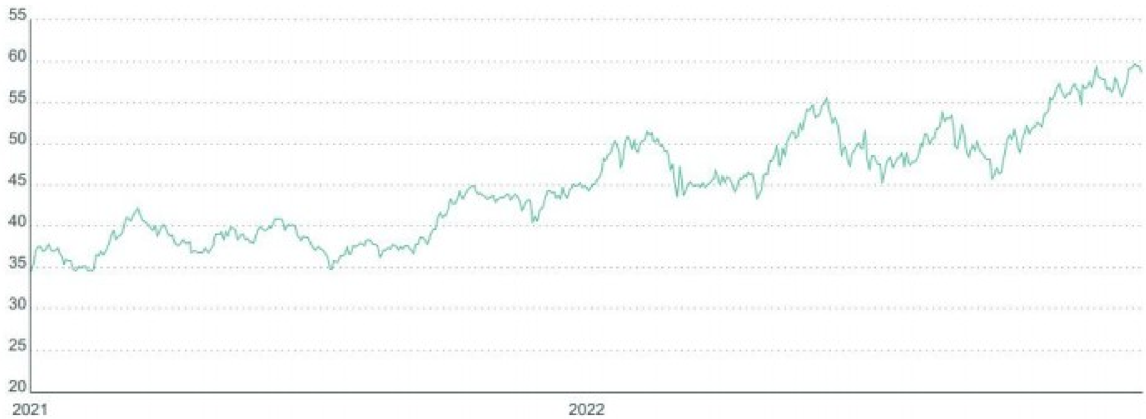



Base 100 at 01/01/2018.

Sources: NYSE, Bloomberg.

**Change in TotalEnergies share price at closing on Euronext Paris (2021-2022)**

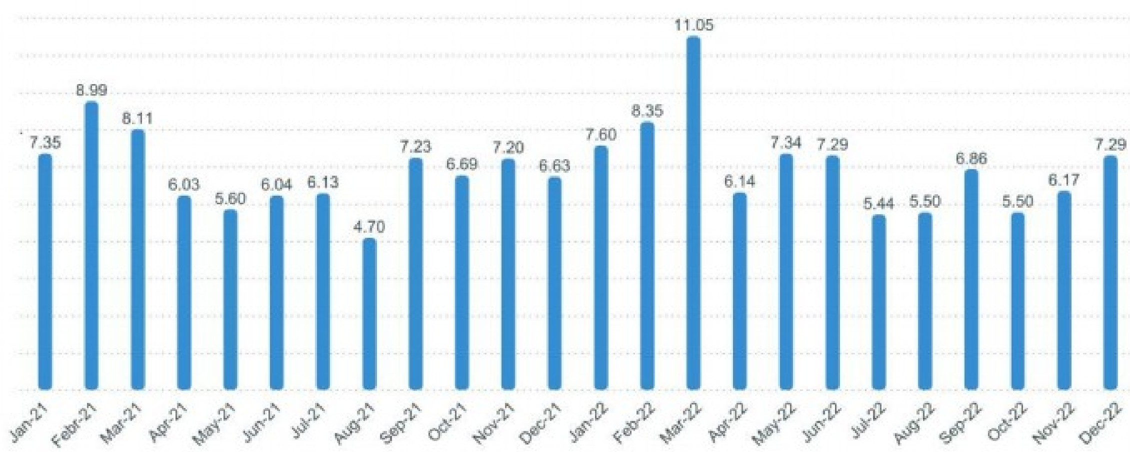
*(in €)*




Source: Euronext Paris.

**Average number of TotalEnergies shares traded on Euronext Paris (2021-2022)**

*(in millions of shares)*




Source: Euronext Paris.

# 6.2 Dividend

## 6.2.1 Shareholder return policy

At its meetings on September 22 and 28, 2022, TotalEnergies' Board of Directors reviewed the Company's outlook in the context of changing energy markets as a result of the energy transition.

The Board of Directors noted the relevance of the Company's balanced multi-energy strategy in light of the developments in the oil, gas and electricity markets. Thanks to refocusing the portfolio of oil and gas assets and projects on low cost (less than $20/b), a strong growth strategy in liquefied natural gas (LNG) to position itself among the top 3 worldwide, and the accelerated development into electricity, mainly renewable to reach the top 5 worldwide, the Company is in a very favorable position to benefit from the evolution of energy markets.

With a breakeven anchored below $25/b, TotalEnergies is a much more profitable company today than it was 10 years ago: at the same oil equivalent price, it generates an additional $15 billion of cash flow and can take full advantage of favorable environments. Thus, by end-2022, the Company has a very strong balance sheet with gearing sharply down to around 7%, providing more flexibility. **It is positioned to both accelerate its transformation strategy and to offer an attractive return to the shareholder policy.**

In addition, the Company expects underlying cash flow (excluding Russia) to grow by $4 billion over the coming 5 years using moderate energy price assumptions ($50/b for oil and $8/Mbtu for European gas), knowing that it would generate an additional cash flow of $3 billion for every $10/b increase in the price of oil. **This structural cash flow growth is expected to support dividend growth over the next five years.**

In this context, the Board of Directors, at its meetings on September 22 and 28, 2022, has adopted a cash flow allocation strategy **for the coming years.** It provides for the **allocation of 35-40% of cash flow to shareholders through the cycles** while accelerating the Company's transformation strategy with net investments increasing to $14-18 billion per year over 2022-25. This increase will be dedicated in priority to the development of low carbon energies and carbon footprint reduction programs which will represent about a third.

More specifically for 2022, at its meeting on February 9, 2022, the Board of Directors decided to propose to the Shareholders' Meeting the distribution of a final dividend of 0.66 euro per share for the fiscal year 2021, equal to the previous three interim dividends paid for this fiscal year 2021, thus setting the dividend for 2021 at 2.64 euros per share. The Board of Directors, at its meetings on April 2022, July 2022 and October 2022 decided to distribute a first, a second and a third interim dividends for the fiscal year 2022, respectively, 5% higher than the interim dividends and the proposed final dividend for fiscal 2021, i.e. €0.69 per share. In addition to this 5% increase for the interim dividends for the fiscal 2022, the Board of Directors decided to distribute an exceptional interim dividend of €1 per share in December 2022 and to maintain the share buyback program at $7 billion. The implementation of these decisions sets **the return to shareholders to 37.2% of 2022 cash flow**.

In view of the growth in structural cash flows forecast for 2023 and the sharebuy backs carried out in 2022 (5% of the share capital), the Board of Directors proposes to the Shareholders' Meeting the distribution of a final 2022 dividend of €0.74/share, i.e., an increase of 6.5% for the ordinary 2022 dividend to €2.81/share, plus the special dividend of €1/share paid in December 2022. In addition, the Board of Directors confirmed a shareholder return policy for 2023 targetting a pay-out between 35%-40%, which will combine an increase in interim dividends of more than 7% to €0.74/share and share buybacks of $2 bilion in the first quarter.

Moreover, TotalEnergies confirmed its project to spin-off its affiliate, TotalEnergies EP Canada, by listing it on the Toronto stock exchange. TotalEnergies intends to retain a 30% stake in the listed entity, and to distribute 70% of the shares to TotalEnergies SE's shareholders, through a special dividend in kind. The draft resolutions, drawn-up as at the date of this Universal Registration Document, plan for this transaction to be submitted to a vote at the Annual Shareholders' Meeting to be held on May 26, 2023.

In 2021, at its meeting on February 8, 2021, the Board of Directors had confirmed its policy of supporting the dividend through economic cycles and proposed the distribution of a final dividend for fiscal year 2020 of 0.66 euro per share, equal to the previous three quarters, thus set the dividend for 2020 at 2.64 euros per share. At its meeting held on April 28, 2021, given the excellent results for the first quarter of 2021 and confident in the Company's fundamentals, the Board of Directors had decided to distribute a first interim dividend for fiscal year 2021 stable at 0.66 euro per share. At its meetings on July 28, 2021, then on October 27, 2021, it respectively maintained the second and the third interim dividends at 0.66 euro per share.

In addition, in accordance with the announced policy of allocating up to 40% of surplus cash generated above $60/b to buybacks and considering the high prices of oil and gas, the Company had completed for 2021, share buybacks for an amount of $1.5 billion in fourth quarter.

In 2020, in light of the economic crisis created by the COVID-19 pandemic but also considering the solid fundamentals of the Company, the Board of Directors, at its meeting held on May 4, 2020, had decided to maintain the final dividend for fiscal year 2019, as announced on February 5, 2020, while proposing to the Shareholders' Meeting on May 29, 2020 that the balance of the dividend for fiscal year 2019 be paid in shares. It was also decided to set the first interim dividend for fiscal year 2020 at 0.66 euro per share, at the same level as the first interim dividend payment for fiscal year 2019. At its meetings on July 29, 2020, thus on October 29, 2020, the Board of Directors had respectively maintained the second and the third interim dividends for 2020 at 0.66 euro per share and reaffirmed its sustainability in a $40/b Brent environment.

In respect of fiscal year 2020, the Company had announced share buybacks in an amount of $2 billion in an environment at $60/b. Having bought back shares in an amount of $0.55 billion in the first quarter of 2020, it announced the suspension of share buybacks by the Corporation on March 23, 2020, against the backdrop of the COVID-19 pandemic and an oil price of around $30/b.

## 6.2.2 Dividend payment policy

On October 28, 2010, the Corporation's Board of Directors adopted a policy based on quarterly dividend payments starting in fiscal year 2011.

The decision of TotalEnergies SE's subsidiaries to declare dividends is made by their relevant Shareholders' Meetings and is subject to the provisions of applicable local laws and regulations. As of December 31, 2022, there is no restriction under such provisions that would materially restrict the distribution to TotalEnergies SE of the dividends declared by those subsidiaries.

### DIVIDENDS FOR FISCAL YEAR 2022

On February 7, 2023, the Board of Directors, after having closed the financial statements for fiscal year 2022, decided to propose to the Shareholders' Meeting on May 26, 2023, the distribution of an ordinary dividend of 2.81 euros per share for fiscal year 2022.

Subject to the Shareholders' decision on May 26, 2023, considering the first three interim dividends already decided by the Board of Directors, the final ordinary dividend for fiscal year 2022 will amount to 0.74 euro per share.

Following its decisions on September 28, 2022, the Board of Directors on October 26, 2022 confirmed the distribution of a special interim dividend of 1 euro per share. The ex-dividend date of this interim dividend was December 6, 2022 and it was paid in cash on December 16, 2022.

Subject to the Shareholders' decision on May 26, 2023, given the special interim dividend for the 2022 financial year already paid, this special dividend of 1 euro per share will not give rise to the payment of a balance.

Subject to the approval of the Shareholder's Meeting to be held on May 26, 2023, dividend for fiscal year 2022 (ordinary plus special) will amount **€3.81** per share.

| 2022 ordinary dividend | First interim | Second interim | Third interim | Final |
|---|---|---|---|---|
| Amount | €0.69 | €0.69 | €0.69 | €0.74 |
| Set date | April 27, 2022 | July 27, 2022 | October 26, 2022 | May 26, 2023 |
| Ex-dividend date | September 21, 2022 | January 2, 2023 | March 22, 2023 | June 21, 2023 |
| Payment date | October 3, 2022 | January 12, 2023 | April 3, 2023 | July 3, 2023 |

| 2022 special dividend | Special interim dividend |
|---|---|
| Amount per share | €1.00 |
| Set date | September 28, 2022 |
| Ex-dividend date | December 6, 2022 |
| Payment date | December 16, 2022 |

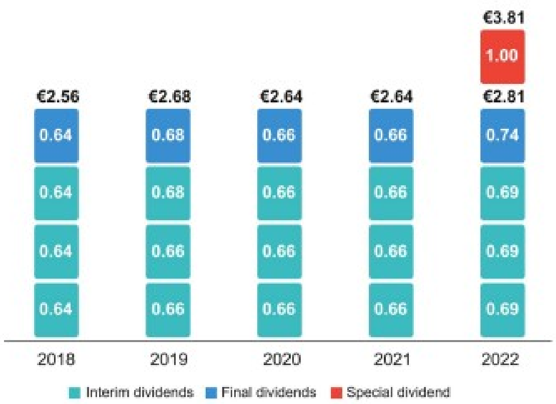
### DIVIDENDS FOR FISCAL YEAR 2023

Subject to the applicable legislative and regulatory provisions, as well as the pending approval by the Board of Directors and the Shareholders' Meeting to be held on May 26, 2023, the ex-date calendar for the interim and final dividends for fiscal year 2023 is expected to be as follows:

| | Ex-dividend date |
|---|---|
| First interim | September 20, 2023 |
| Second interim | January 2, 2024 |
| Third interim | March 20, 2024 |
| Final | June 19, 2024 |

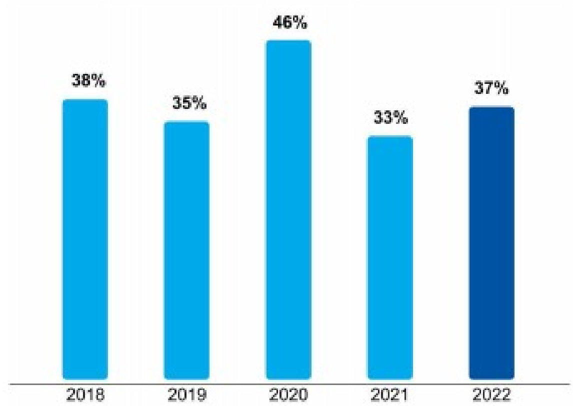
The provisional ex-dividend dates above relate to the shares admitted for trading on Euronext.

### DIVIDENDS FOR THE LAST FIVE FISCAL YEARS[1]




The rate of return to shareholders is calculated on the basis of the amount of dividends paid in cash during the year plus the amount of TotalEnergies share buybacks carried out by the Corporation during the year (for the purpose of canceling shares issued in connection with the payment of the dividend in shares or under its share buyback program), as a percentage of cash flow from operating activities[2] for the year in question.

The rate of return to shareholders for fiscal year 2022 was 37.2%[3]. Changes in the rate of return to shareholders over the past five fiscal years are as follows:




## 6.2.3 Dividend payment

Société Générale Securities Services manages the payment of the dividend, which is made through financial intermediaries using the Euroclear France direct payment system.

JP Morgan Chase Bank N.A. (383 Madison Avenue, Floor 11, New York, 10179, USA) manages the payment of dividends to holders of TotalEnergies ADR.

#### Dividend payment on stock certificates

The Corporation issued stock certificates (*certificats représentatifs d'actions*, CR Actions) in Belgium as part of the public exchange offer for Total Petrochemicals & Refining SA/NV (formerly Petrofina) shares.

The CR Actions is a stock certificate provided for by French rules, issued by Euroclear France, intended to circulate exclusively outside of France, and which may not be held by French residents. Since January 1, 2018, in compliance with Belgian law, CR Actions may only be issued in the form of a dematerialized certificate. CR Actions issued before this date are freely convertible from a physical certificate into a dematerialized certification in the form of a security registered on a custody account.

In addition, ING Belgique is the bank handling the payment of all coupons detached from outstanding CR Actions. No fees are applicable to the payment of coupons detached from CR Actions, except for any income or withholding taxes; the payment may be received on request at the following bank branches:

- ING Belgique, Avenue Marnix 24, 1000 Brussels, Belgium,
- BNP Paribas Fortis, Avenue des Arts 45, 1040 Brussels, Belgium, and
- KBC BANK N.V., Avenue du Port 2, 1080 Brussels, Belgium.

(1) Subject to approval by the Shareholders' Meeting on May 26, 2023. Since January 1, 2018, those dividends received by individuals having their tax residence in France are subject to a 30% flat rate on the gross amount (i.e., 12.8% for income tax and 17.2% for social security contributions). However, with respect to income tax, taxpayers can opt for the taxation of their dividend income at the progressive scale with a 40% rebate.

(2) The operating cash flow before working capital changes is defined as cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective in 2020).

(3) Based on an amount of \$17,00 billion, consisting of dividends paid in cash plus TotalEnergies share buybacks during 2022 plus an operating cash flow before working capital changes of \$45,73 billion in 2022.

### 6.2.4 Coupons

| Fiscal year | Ex-dividend date | Payment date | Date of expiration | Type of coupon | Amount (in €) |
|---|---|---|---|---|---|
| 2015 | 09/28/2015 | 10/21/2015 | 10/21/2020 | Interim dividend | 0.61 |
| | 12/21/2015 | 01/14/2016 | 01/14/2021 | Interim dividend | 0.61 |
| | 03/21/2016 | 04/12/2016 | 04/12/2021 | Interim dividend | 0.61 |
| | 06/06/2016 | 06/23/2016 | 06/23/2021 | Final dividend | 0.61 |
| 2016 | 09/27/2016 | 10/14/2016 | 10/14/2021 | Interim dividend | 0.61 |
| | 12/21/2016 | 01/12/2017 | 01/12/2022 | Interim dividend | 0.61 |
| | 03/20/2017 | 04/06/2017 | 04/06/2022 | Interim dividend | 0.61 |
| | 06/05/2017 | 06/22/2017 | 06/22/2022 | Final dividend | 0.62 |
| 2017 | 09/25/2017 | 10/12/2017 | 10/12/2022 | Interim dividend | 0.62 |
| | 12/19/2017 | 01/11/2018 | 01/11/2023 | Interim dividend | 0.62 |
| | 03/19/2018 | 04/09/2018 | 04/09/2023 | Interim dividend | 0.62 |
| | 06/11/2018 | 06/28/2018 | 06/28/2023 | Final dividend | 0.62 |
| 2018 | 09/25/2018 | 10/12/2018 | 10/12/2023 | Interim dividend | 0.64 |
| | 12/18/2018 | 01/10/2019 | 01/10/2024 | Interim dividend | 0.64 |
| | 03/19/2019 | 04/05/2019 | 04/05/2024 | Interim dividend | 0.64 |
| | 06/11/2019 | 06/13/2019 | 06/13/2024 | Final dividend | 0.64 |
| 2019 | 09/27/2019 | 10/01/2019 | 10/01/2024 | Interim dividend | 0.66 |
| | 01/06/2020 | 01/08/2020 | 01/08/2025 | Interim dividend | 0.66 |
| | 03/30/2020 | 04/01/2020 | 04/01/2025 | Interim dividend | 0.68 |
| | 06/29/2020 | 07/01/2020 | 07/01/2025 | Final dividend | 0.68 |
| 2020 | 09/25/2020 | 10/02/2020 | 10/02/2025 | Interim dividend | 0.66 |
| | 01/04/2021 | 01/11/2021 | 01/11/2026 | Interim dividend | 0.66 |
| | 03/25/2021 | 04/01/2021 | 04/01/2026 | Interim dividend | 0.66 |
| | 06/24/2021 | 07/01/2021 | 07/01/2026 | Final dividend | 0.66 |
| 2021 | 09/21/2021 | 10/01/2021 | 10/01/2026 | Interim dividend | 0.66 |
| | 01/03/2022 | 01/13/2022 | 01/13/2027 | Interim dividend | 0.66 |
| | 03/22/2022 | 04/01/2022 | 04/01/2027 | Interim dividend | 0.66 |
| | 06/21/2022 | 07/01/2022 | 07/01/2027 | Final dividend | 0.66 |
| **2022**[(a)] | 09/21/2022 | 10/03/2022 | 10/03/2027 | Interim dividend | 0.69 |
| | 12/06/2022 | 12/16/2022 | 12/16/2027 | Special dividend | 1.00 |
| | 01/02/2023 | 01/12/2023 | 01/12/2028 | Interim dividend | 0.69 |
| | 03/22/2023 | 04/03/2023 | 04/03/2028 | Interim dividend | 0.69 |
| | 06/21/2023 | 07/03/2023 | 07/03/2028 | Final dividend | 0.74 |

(a) Subject to the Shareholders' decision on May 26, 2023.

## 6.3 Share buybacks

The Shareholders' Meeting on May 25, 2022, after considering the report from the Board of Directors, authorized the Board of Directors, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code, of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation (règlement général) of the French Financial Markets Authority (Autorité des marchés financiers), to buy or sell shares of the Corporation. The number of shares acquired may not exceed 10% of the share capital. The maximum purchase price was set at €80 per share. This authorization was granted for a period of 18 months and replaced the previous authorization granted by the Shareholders' Meeting on May 28, 2021.

In 2022, TotalEnergies SE bought back 140,207,743 TotalEnergies shares including :

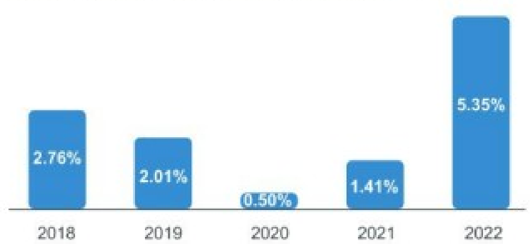
- 128,869,261 TotalEnergies shares in order to cancel them in an amount of $7,02 billion, and
- 11,338,482 TotalEnergies shares in order to cover the performance share plans approved by the Board of Directors.

At its meeting on February 7, 2023, the Board of Directors decided, following the authorization of the Extraordinary Shareholder's Meeting on May 25, 2022, to cancel the 128,869,261 treasury shares bought back during 2022.

In addition, in 2023, TotalEnergies SE bought back 23,751,753 TotalEnergies shares as of February 28, 2023 *i.e.*, :

- 22,147,540 TotalEnergies shares in order to cancel them in an amount of $1,392 million, and
- 1,604,213 TotalEnergies shares in order to cover the performance share plans approved by the Board of Directors.

**Percentage of share capital bought back (2018 - 2022)**



## 6.3.1 Board of Directors' report on share buybacks and sales

### 6.3.1.1 SHARE BUYBACKS DURING FISCAL YEAR 2022

Following the Board of Directors' decisions during its meetings on February 9, April 27, July 27 and October 26, 2022, and pursuant to the authorizations granted by the Shareholders' Meetings on May 28, 2021 and May 25, 2022, the Corporation bought back 128,869,261 TotalEnergies shares during fiscal year 2022, in order to cancel them, *i.e.*, 4.92% of the share capital as of December 31, 2022. These shares were bought back for a total amount of €6.75 billion, or $7.02 billion[1], at an average unit price of €52.38.

In addition, the Corporation bought back, in 2022, a total of 11,338,482 TotalEnergies shares for a total of €620 million, at an average unit price of €54.66, in order to cover the performance share plans decided by the Board of Directors, using the authorizations granted by the Shareholders' Meetings.

### 6.3.1.2 CANCELLATION OF CORPORATION SHARES DURING FISCAL YEARS 2020 TO 2022

The Board of Directors, pursuant to the authorization granted by the Shareholders' Meeting on May 26, 2017, to reduce the Corporation's share capital in one or more steps by cancelling shares, in accordance with the provisions of Articles L. 22-10-62 and L. 225-213 of the French Commercial Code, cancelled the following TotalEnergies shares:

| Fiscal year | Date of Board of Directors' decision | Number of shares bought back and cancelled | Percentage of share capital cancelled[(a)] |
|---|---|---|---|
| **2022** | **February 9, 2022** | **30,665,526** | **1.16%** |
| 2021 | February 8, 2021 | 23,284,409 | 0.88% |
| 2020[(b)] | | n/a | |

(a) Percentage of the share capital that the cancelled shares represented on the operations' date.
(a) TotalEnergies SE did not cancel any shares in fiscal year 2020.

Under the terms of the 23rd resolution of the Shareholders' Meeting on May 25, 2022, the Board of Directors is authorized to cancel the shares of the Corporation within the limit of 10% of the capital of the Corporation existing on the date of the operation per period of 24 months.

### 6.3.1.3 TRANSFER OF SHARES DURING FISCAL YEAR 2022

6,195,654 TotalEnergies shares were transferred during fiscal year 2022 following the final award of TotalEnergies shares under performance share plans decided by the Board of Directors.

### 6.3.1.4 SHARES HELD IN THE NAME OF THE CORPORATION AND ITS SUBSIDIARIES AS OF DECEMBER 31, 2022

As of December 31, 2022, the Corporation held 137,187,667 treasury shares representing 5.24% of TotalEnergies SE's share capital on that same date, including:

- 128,869,261 shares to be cancelled, and
- 8,318,406 shares to cover the performance share plans.

In accordance with French law, these shares are deprived of voting rights and do not entitle holders to dividends.

In addition, shares bought back in order to be allocated to employees of the Corporation or other TotalEnergies' companies when such shares are held to cover share purchase option plans that have expired or performance shares that have not been granted by the end of the vesting period, may be held under the conditions applicable to the holding by the Corporation of its own shares and used in accordance with the purposes specified buybacks by the Corporation of its own shares.

### 6.3.1.5 REALLOCATION FOR OTHER PURPOSES DURING FISCAL YEAR 2022

Treasury shares held by the Corporation were not, during fiscal year 2022, reallocated for purposes other than those initially planned when purchased.

### 6.3.1.6 CONDITIONS FOR THE SHARE BUYBACKS AND USE OF DERIVATIVE INSTRUMENTS

No derivative instruments were used in the context of the share buyback programs authorized by the Shareholders' Meetings on May 28, 2021, and May 25, 2022. TotalEnergies has no open purchase or sale position as of December 31, 2022.

#### TRANSACTIONS COMPLETED BY THE CORPORATION INVOLVING ITS TREASURY SHARES FROM JANUARY 1 TO DECEMBER 31, 2022

| | Cumulative gross movements | |
|---|---|---|
| | Purchases | Sales/Transfers |
| Number of shares | 140,207,743 | 6,195,654[(a)] |
| Average transaction price[(b)] (in €) | 52.58 | – |
| Amount of transactions (in €) | 7,371,466,778.98[(c)] | – |

(a) Corresponds to the final award of TotalEnergies shares under the performance share plans.
(b) Including brokerage fees (excluding taxes).
(c) Including €1,112,822.90 of brokerage fees (excluding taxes).

(1) At the ECB exchange rate on the date of the share buybacks.

### TREASURY SHARES AT DECEMBER 31, 2022

| Percentage of share capital held by TotalEnergies SE | 5.24% |
|---|---|
| Number of shares held in portfolio | 137,187,667[a] |
| Par value of the portfolio (in €m) | 343[b] |
| Book value of the portfolio (in €m) | 7,232.9 |
| Market value of the portfolio (in €m) | 8,046.1[c] |

(a) Including 8,231,365 shares held to cover the performance share plans and 87,041 shares to be awarded under new share purchase option plans or new performance share plans.
(b) Based on a TotalEnergies share par value of €2.50.
(c) Based on TotalEnergies' closing share price of €58,65 on Euronext Paris on December 31, 2022.

## 6.3.2 Share buyback program

Supported by the strength of the Company's balance sheet and its cash generation potential, the Board of Directors confirmed on February 7, 2023, a shareholder return policy for 2023 targeting a cash pay-out of between 35% and 40% as well as the following cash flow allocation priorities:

- a sustainable ordinary dividend through cycles, that was not cut during the COVID-19 crisis, and whose increase is supported by underlying cash flow growth,
- investments to support a strategy balanced between the various energies,
- maintaining a strong balance sheet with a target rating at an "AA" level,
- buybacks to share surplus cash flow generated at high prices and possibly a special dividend in the event of very high prices.

For 2023, this shareholder return policy will combine a 7.25% increase to 0.74 euro per share in interim dividends and share buybacks of $2 billion planned for the first quarter 2023.

### 6.3.2.1 DESCRIPTION OF THE SHARE BUYBACK PROGRAM UNDER ARTICLES 241-1 ET SEQ. OF THE AMF GENERAL REGULATION

The objectives of the share buyback program are as follows:

- reduce the Corporation's capital through the cancellation of shares,
- honor the Corporation's obligations related to securities convertible or exchangeable into Corporation shares,
- honor the Corporation's obligations related to stock option programs or other share grants to the Corporation's executive directors or to employees of the Corporation or of subsidiaries of TotalEnergies, and
- stimulate the secondary market or the liquidity of the TotalEnergies share under a liquidity agreement.

### 6.3.2.2 LEGAL FRAMEWORK

Implementation of this share buyback program, which is covered by Articles L. 22-10-62 *et seq.*, L. 225-213 of the French Commercial Code, Articles 241-1 *et seq.* of the General Regulation of the AMF, and the provisions of Regulation (EU) No 596/2014 on market abuse, is subject to approval by the TotalEnergies SE Shareholders' Meeting on May 26, 2023, under the proposed fourth resolution, which reads as follows:

"Upon presentation of the report by the Board of Directors and information appearing in the description of the program prepared pursuant to Articles 241-1 *et seq.* of the General Regulation *(règlement général)* of the French Financial Markets Authority *(Autorité des marchés financiers)*, and voting under the conditions of quorum and majority required for Ordinary Shareholders' Meetings, the shareholders hereby authorize the Board of Directors, with the possibility to sub-delegate such authority under the terms provided for by French law, pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code and of Regulation (EU) No. 596/2014 of April 16, 2014, on market abuse and of the General Regulation of the AMF, to buy or sell shares of the Corporation within the framework of a share buyback program.

The purchase, sale or transfer of such shares may be transacted by any means on regulated markets, multilateral trading facilities or over the counter, including the purchase or sale by block trades, in accordance with the regulations of the relevant market regulatory authorities. Such transactions may include the use of any financial derivative instrument traded on regulated markets and implementing option strategies.

These transactions may be carried out at any time, in accordance with the applicable rules and regulations at the date of the operations under consideration, except during any public offering periods applying to the Corporation's share capital.

The maximum purchase price is set at €100 per share.

In the case of a share capital increase by incorporation of reserves and free share grants or in the case of a stock-split or a reverse stock- split, this maximum price shall be adjusted by applying the ratio of the number of shares outstanding before the transaction to the number of shares outstanding after the transaction.

Pursuant to the provisions of Article L. 22-10-62 of the French Commercial Code, the maximum number of shares that may be bought back under this authorization may not exceed 10% of the total number of shares composing the capital as of the date on which this authorization is used. This limit of 10% is applicable to the share capital of the Corporation which may be adjusted from time to time as a result of transactions after the date of the present meeting. Purchases made by the Corporation may under no circumstances result in the Corporation holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

As of February 28, 2023, out of the 2,490,262,024 shares outstanding, the Corporation held 32,070,009 shares directly. Under these circumstances, the maximum number of shares that the Corporation could buy back is 216,956,193 shares and the maximum amount that the Corporation may spend to acquire such shares is €21,695,619,300.00 (excluding acquisition fees).

The purpose of this share buyback program is to reduce the number of outstanding shares of the Corporation or to allow it to fulfill its engagements in connection with:

- convertible or exchangeable securities that may give holders rights to receive shares of the Corporation upon conversion or exchange; and/or
- share purchase option plans, employee shareholding plans, company savings plans or other share allocation programs for executive directors or employees of the Corporation or TotalEnergies' companies.

The purpose of buybacks may also be the implementation of the market practice accepted by the French Financial Markets Authority (*Autorité des marchés financiers*), i.e., support the secondary market or the liquidity of TotalEnergies shares by an investment services provider by means of a liquidity agreement compliant with the deontology charter recognized by the French Financial Markets Authority (*Autorité des marchés financiers*).

This program may also be used by the Corporation to trade in its own shares, either on or off the market, for any other purpose that is authorized under the applicable law or any other permitted market practice that may be authorized at the date of the operations under consideration. In case of transactions other than the abovementioned intended purposes, the Corporation will inform its shareholders in a press release.

According to the intended purposes, the treasury shares that are acquired by the Corporation through this program may, in particular, be:

- canceled, up to the legal limit of 10% of the total number of shares composing the capital on the date of the operation, per each 24-month period,
- granted for no consideration to the employees and to the executive directors of the Corporation or of other TotalEnergies' companies,
- delivered to the beneficiaries of the Corporation's shares purchase options having exercised such options,
- sold to employees, either directly or through the intermediary of company savings funds,
- delivered to the holders of securities that grant such rights to the allocation of Corporation shares, either through redemption, conversion, exchange, presentation of a warrant or in any other manner, and
- used in any other way consistent with the purposes stated in this resolution.

While they are bought back and held by the Corporation such shares will be deprived of voting rights and dividend rights.

This authorization is granted for an 18-month period from the date of this Meeting. It renders ineffective, up to the unused portion, any previous authorization having the same purpose.

The Board of Directors is hereby granted full authority, with the right to sub-delegate such authority, to undertake all actions authorized by this resolution."

## 6.3.2.3 CONDITIONS

### Maximum share capital to be purchased and maximum funds allocated to the transaction

The maximum number of shares that may be purchased under the authorization provided by the Shareholders' Meeting on May 26, 2023[(1)], may not exceed 10% of the total number of shares composing the capital, with this limit applying to an amount of the Corporation's share capital that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this Meeting. Purchases made by the Corporation may under no circumstances result in the Corporation holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

Before any share cancellation under the authorization granted by the Shareholders' Meeting on May 26, 2023, based on the number of shares outstanding as of February 28, 2023[(2)] and given the 32,070,009 shares held by the Corporation as of February 28, 2023, representing 1.29% of the share capital, the maximum number of shares that may be purchased would be 216,956,193 representing a theoretical maximum investment of €21,695,619,300.00 (excluding acquisition fees) based on the maximum purchase price of €100.

### Conditions for buybacks

Such shares may be bought back by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market regulatory authorities. These means include the use of any financial derivative instrument traded on a regulated market or over the counter and the implementation of option strategies, with the Corporation taking measures, however, to avoid increasing the volatility of its stock. The portion of the program carried out through the purchase of blocks of shares will not be subject to quota allocation, up to the limit set by this resolution. These transactions may be carried out at any time, in accordance with the applicable rules and regulations, except during any public offering periods applying to the Corporation's share capital.

### Duration and schedule of the share buyback program

In accordance with the fourth resolution, submitted to the Shareholders' Meeting on May 26, 2023, the share buyback program may be implemented over an 18-month period following the date of this Meeting, *i.e.*, until November 26, 2024.

### Transactions carried out under the previous program

Transactions carried out under the previous program are listed in the special report of the Board of Directors on share buybacks (refer to point 6.3.1 of this chapter).

(1) Subject to the Shareholders' decision on May 26, 2023.
(2) 2,490,262,024 shares.

# 6.4 Shareholders

## 6.4.1 Major shareholders

### 6.4.1.1 CHANGES IN MAJOR SHAREHOLDERS' HOLDINGS

TotalEnergies SE's major shareholders[(1)] as of December 31, 2022, 2021 and 2020 were as follows:

| | 2022 | | | 2021 | | 2020 | |
|---|---|---|---|---|---|---|---|
| As of December 31 | % of share capital | % of voting rights | % of theoretical voting rights[(a)] | % of share capital | % of voting rights | % of share capital | % of voting rights |
| BlackRock, Inc.[(b)] | 6.6 | 6.0 | 5.7 | 6.2 | 5.3 | 5.9 | 5.0 |
| Employee shareholders[(c)] | 6.8 | 12.4 | 11.8 | 6.8 | 11.4 | 6.4 | 10.7 |
| *of which FCPE TotalEnergies Actionnariat France (French shareholders' company mutual fund)* | *4.2* | *8.1* | *7.7* | *4.2* | *7.3* | *4.0* | *7.0* |
| Other shareholders | 86.6 | 81.6 | 82.5 | 87.0 | 83.3 | 87.7 | 84.3 |
| *of which holders of ADR[(d)]* | *8.7* | *8.5* | *8.1* | *8.2* | *7.8* | *7.1* | *6.7* |

(a) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached, including treasury shares that are deprived of voting rights.
(b) Information taken from Schedule 13G/A filed by BlackRock, Inc ("BlackRock") with the SEC on February 2, 2023, in which BlackRock declares a holding of 173,302,160 shares in TotalEnergies as of December 31, 2022 (*i.e.*, 6.6% of the Corporation's share capital). BlackRock stated that it has the exclusive right to dispose of its holding and of 161,238,279 voting rights (*i.e.*, 6.0% of the Corporation's voting rights). In addition, BlackRock stated that it does not have any joint voting rights or joint right to dispose of these shares.
(c) On the basis of the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and, since 2020, Article 11 para. 6 of the Corporation's Articles of Association. Amundi, the holding company of Amundi Asset Management, which in turn manages the TotalEnergies Actionnariat France fund (see below), filed a Schedule 13G/A with the SEC on February 10, 2023, declaring a holding of 255,227,183 TotalEnergies shares as of December 31, 2022 (9.7% of the Corporation's share capital). Amundi stated that it does not have any exclusive voting rights or exclusive right to dispose of these shares and that it has joint voting rights on 72,907,540 of these shares (*i.e.*, 2.6% of the Corporation's voting rights) and a joint right to dispose of all of these shares.
(d) Including all the American Depositary Shares represented by ADR listed on the NYSE.

The percentage of the holdings of the major shareholders was calculated based on the below data:

| As of December 31 | 2022 | 2021 | 2020 |
|---|---|---|---|
| Number of shares composing the share capital | 2,619,131,285 | 2,640,429,329 | 2,653,124,025 |
| Number of voting rights attached to the shares | 2,671,776,303 | 2,771,376,477 | 2,784,218,957 |
| Number of theoretical voting rights | 2,808,963,970[(a)] | 2,805,217,581[(b)] | 2,808,611,660[(c)] |

(a) Exercisable at the Shareholders' Meeting taking into account 137,187,667 voting rights attached to the 137,187,667 TotalEnergies shares held by TotalEnergies SE that are deprived of voting rights.
(b) Exercisable at the Shareholders' Meeting as of December 31, 2021.
(c) Exercisable at the Shareholders' Meeting as of December 31, 2020.

### 6.4.1.2 HOLDINGS ABOVE THE LEGAL THRESHOLDS

In accordance with the provisions of Article L. 233-13 of the French Commercial Code, to TotalEnergies SE's' knowledge, two identified shareholders held 5% or more of the share capital or voting rights at year-end 2022:

- the TotalEnergies Actionnariat France collective investment fund held, as of December 31, 2022, 4.2% of the share capital representing 8.1% of the voting rights exercisable at Shareholders' Meetings and 7.7% of the theoretical voting rights,
- BlackRock held, as of December 31, 2022, 6.6% of the share capital representing 6.0% of the voting rights exercisable at Shareholders' Meetings and 5.7% of the theoretical voting rights.

(1) Major shareholders are defined herein as shareholders whose interest exceeds 5% of the share capital or voting rights.

### 6.4.1.3 LEGAL THRESHOLD NOTIFICATIONS IN FISCAL YEAR 2022

| AMF notice no. | Date of passing threshold | Group | Number of shares | % of share capital | % of voting rights | Going below/ above threshold of 5% of voting rights | Number of shares composing the share capital | Number of voting rights |
|---|---|---|---|---|---|---|---|---|
| 222C1597 | 06/21/2022 | The Goldman Sachs Group, Inc. | 163,111,362 | 6.25% | 5.87% | Above | 2,609,773,274 | 2,778,375,456 |
| 222C1597 | 06/22/2022 | Goldman Sachs International | 130,080,301 | 4.98% | 4.68% | Below | 2,609,773,274 | 2,778,375,456 |
| 222C1597 | 06/22/2022 | The Goldman Sachs Group, Inc. | 22,271,667 | 0.85% | 0.80% | Below | 2,609,773,274 | 2,778,375,456 |
| 222C2224 | 09/16/2022 | The Goldman Sachs Group, Inc. | 209,802,225 | 8.01% | 7.47% | Above | 2,619,131,285 | 2,807,103,956 |
| 222C2224 | 09/16/2022 | Goldman Sachs International | 141,174,930 | 5.39% | 5.03% | Above | 2,619,131,285 | 2,807,103,956 |
| 222C2245 | 09/22/2022 | Goldman Sachs International | 137,505,345 | 5.25% | 4.90% | Below | 2,619,131,285 | 2,807,103,956 |
| 222C2268 | 09/29/2022 | Goldman Sachs International | 141,342,471 | 5.40% | 5.04% | Above | 2,619,131,285 | 2,807,103,956 |
| 222C2268 | 09/29/2022 | The Goldman Sachs Group, Inc. | 47,335,704 | 1.81% | 1.69% | Below | 2,619,131,285 | 2,807,103,956 |

### 6.4.1.4 THRESHOLD NOTIFICATIONS REQUIRED BY THE BYLAWS

In addition to the legal obligations to inform notably the Corporation and the French Financial Markets Authority when the number of shares (or securities similar to shares or voting rights pursuant to Article L. 233-9 of the French Commercial Code) held represents more than 5%, 10%, 15%, 20%, 25%, 30%, one third, 50%, two thirds, 90% or 95% of the share capital or theoretical voting rights, such information being made at the latest on the close of the fourth trading day after the threshold is exceeded (Article L. 233-7 of the French Commercial Code and Article 223-14 of the AMF General Regulation), any individual or legal entity who directly or indirectly comes to hold a percentage of the share capital, voting rights or rights giving future access to the Corporation's share capital that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Corporation within 15 days of the date on which each of the above thresholds is exceeded, by registered mail with return receipt requested, and indicate the number of shares held.

If not declared, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Corporation's share capital or voting rights so request at that Meeting.

Any individual or legal entity is also required to notify the Corporation in due form and within the time limits stated above when their direct or indirect holdings fall below each of the thresholds mentioned above.

Notifications must be sent to the Head of Investor Relations, contact details provided in point 6.6.6 of this chapter.

### 6.4.1.5 TEMPORARY TRANSFER OF SECURITIES

Pursuant to legal provisions, any legal entity or individual (with the exception of those described in paragraph IV-3 of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than two percent of the Corporation's voting rights pursuant to one or more temporary transfer or similar operations as described in Article L. 22-10-48 of the aforementioned Code is required to notify the Corporation and the AMF of the number of shares temporarily owned no later than the second business day preceding the Shareholders' Meeting at midnight (Paris time).

Notifications must be emailed to the Corporation at the following address: holding.df-declarationdeparticipation@totalenergies.com.

If no notification is sent, any shares acquired under any of the above temporary transfer operations will be deprived of voting rights at the relevant Shareholders' Meeting and at any Shareholders' Meeting that may be held until such shares are transferred again or returned.

### 6.4.1.6 SHAREHOLDERS' AGREEMENTS

TotalEnergies SE is not aware of any agreements among its shareholders.

## 6.4.2 Employee shareholding

As of December 31, 2022, based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Corporation's Articles of Association, the Company's employees held, directly or indirectly, 176,929,633 TotalEnergies shares, representing 6.8% of the Corporation's share capital and 12.4% of the voting rights, distributed as follows:

| | |
|---|---|
| FCPE TotalEnergies Actionnariat France | 109,620,683 |
| FCPE TotalEnergies Actionnariat International Capitalisation | 38,946,624 |
| FCPE TotalEnergies France Capital+ | 3,336,502 |
| FCPE TotalEnergies Intl Capital | 1,303,729 |
| Shares subscribed by employees in the US | 1,397,309 |
| Shares subscribed by employees in Italy, Germany, Spain and Denmark | 1,349,287 |
| TotalEnergies shares resulting from the exercise of stock options and held as registered shares within a Company Savings Plan | 1,154,835 |
| TotalEnergies performance shares granted to employees | 19,820,664 |
| **TOTAL SHARES HELD BY EMPLOYEES** | **176,929,633** |

The management of each of the collective investment funds (FCPEs) mentioned above is controlled by a dedicated Supervisory Board, two thirds of its members representing holders of fund units and one third representing the company. In accordance with legal provisions, the employees representing the unitholders are elected from among the unitholder employees as a whole based on the number of units held by each unitholder and, for the exercise of the voting rights attached to the securities issued by the company, after discussion in the presence of the company representatives, the voting operations take place without the latter being present.

The Supervisory Board is responsible for reviewing the collective investment fund's management report and annual financial statements, as well as the financial, administrative and accounting management of the fund, exercising voting rights attached to portfolio securities, deciding contributions of securities in case of a public tender offer, deciding mergers, spin-offs or liquidations, and granting its approval prior to changes in the rules and procedures of the collective investment fund in the conditions provided for by the rules and procedures.

These rules and procedures also stipulate a simple majority vote for decisions, except for decisions requiring a qualified majority vote of two thirds plus one related to a change in a fund's rules and procedures, its conversion or disposal.

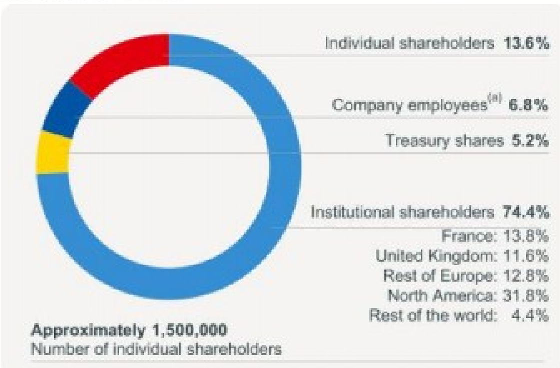
For employees holding shares outside of the employee collective investment funds mentioned in the table above, voting rights are exercised individually.

The information regarding shares held by the administration and management bodies is set forth in point 4.1.6 of chapter 4.

## 6.4.3 Shareholding structure

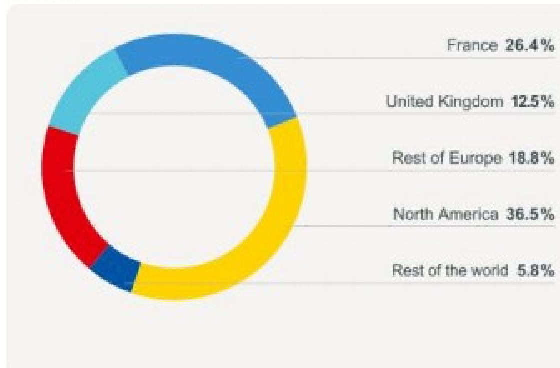
Estimate as of December 31, 2022, based on the request for the identification of shareholders made on that date, pursuant to Article L. 228-2 of the French Commercial Code.

**By shareholder type**




(a) Based on the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code and Article 11 paragraph 6 of the Corporation's Articles of Association.

**By area[a]**




(a) Excluding treasury shares.

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[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]

# 6.6 Investor relations

## 6.6.1 Documents on display

Information and documents regarding TotalEnergies SE, its bylaws and the Corporation's Statutory and Consolidated Financial Statements for the year ended December 31, 2022, or previous fiscal years, may be consulted at its registered office pursuant to the legal and regulatory provisions in force, as well as on TotalEnergies' website.

In addition, TotalEnergies SE's Reference Documents or Universal Registration Documents (including the annual financial reports) and the interim financial reports filed with the French Financial Markets Authority (*Autorité des marchés financiers*) for each of the past 10 financial years are available on the Corporation's website (under Investors/Publications and regulated information). The Company's half-yearly results and outlook presentations, as well as the quarterly financial information, are also available on the TotalEnergies website.

Furthermore, in order to meet its obligations related to the listing of its shares in the United States, the Corporation also files an annual report on Form 20-F, in English, with the SEC. This report is also available on the Corporation's website.

(1) Apart from the countries and territories mentioned in point 2 bis (2°) of the same article. The NCCTs concerned by the provision are: Anguilla, British Virgin Islands, Panama, Seychelles and Vanuatu. As of May 1, 2023, the Bahamas, the Turks and Caicos Islands are added to this list. Following an update of the blacklist of non-cooperative states of the European Union on February 14, 2023, the Marshall Islands should join this list provided that a French decree is published to this effect.

## 6.6.2 Relationships with institutional investors, financial analysts and individual shareholders

Members of the Company's General Management and Investor Relations regularly meet with institutional investors and financial analysts in the leading financial centers throughout the world.

In 2022, the Company kept up a sustained rate of meetings, mainly held by videoconference. Approximately 1,200 meetings were held.

Each year, two main presentations are given to the financial community: one in February following the publication of the results for the previous fiscal year, and the other in September to present the Company's outlook and objectives. A series of meetings is held after each of these presentations. In addition, each year the Chief Financial Officer hosts three conference calls to discuss results for the first, second and third quarters of the year. The information presented and broadcast at these events are available on the TotalEnergies website.

With a dedicated team, the Company also maintains an ongoing dialogue with investors, extra-financial analysts and extra-financial rating agencies on ESG (Environment Social Governance) issues. In all, more than 250 ESG meetings were organized in France and abroad in 2022. In this context, the Lead Independent Director participated in a roadshow in April 2022 during which he met with several investors.

The Sustainability & Climate - Progress Report 2022, presenting the progress made in implementing TotalEnergies' ambitions for sustainable development and energy transition toward carbon neutrality was submitted to an advisory vote at the Annual Shareholders' Meeting held on May 25, 2022. The resolution was approved by the shareholder at close to 89%. The Sustainability & Climate - Progress Report 2023 adopted by the Board of Directors was published and presented on March 21, 2023, during a Strategy, Sustainability & Climate investor meeting. It will be submitted to an advisory vote at the Annual Shareholders' Meeting on May 26, 2023.

In addition, the Company has an ISO 9001 certified team dedicated to relationships with individual shareholders and offering a comprehensive communication package, featuring:

- a direct-line, email address, and postal address (refer to point 6.6.6 of this chapter),
- documentation and material provided for individual shareholders (e.g., the shareholders' newsletter, e-newsletter, etc.),
- shareholder meetings and fairs in France and abroad,
- the Shareholders' Club, which organizes visits to industrial facilities, cultural events sponsored by the TotalEnergies Foundation and conferences about the Company,
- the Shareholders' e-Advisory Committee, which expresses its views on the communication service as a whole.

The documentation on relationships with individual shareholders is available on the TotalEnergies website (under Investors/Individual shareholders).

This team also organized the Annual Shareholders' Meeting which was held on May 25, 2022, in Paris. As the Company is particularly committed to preserving this key moment in the expression of shareholder democracy, it took care to implement the necessary means to facilitate remote participation by shareholders. They were able to follow the meeting in full and live, thanks to its broadcast on the Company's website. Shareholders also had the opportunity to ask questions online via a dedicated platform accessible from the Company's website between May 9 and May 20, 2022. More than 50 questions were received. As every year, the Chairman and Chief Executive Officer spent an hour answering them after the questions had been classified by major themes. The replay of the Shareholders' Meeting remains accessible on the TotalEnergies website.

## 6.6.3 Registered shareholding

TotalEnergies shares can be held in bearer form or registered form. In the latter case, shareholders are identified by TotalEnergies SE, in its capacity as the issuer, or by its agent, Société Générale Securities Services, which is responsible for keeping the register of shareholders' registered shares.

### REGISTERED SHARES

There are two forms of registration:

- administered registered shares: shares are registered with TotalEnergies through the Corporation's agent, but the holder's financial intermediary continues to administer them (sales, purchases, coupons, etc.),
- pure registered shares: TotalEnergies holds and directly administers shares on behalf of the holder through the Corporation's agent (sales, purchases, coupons, Shareholders' Meeting notices, etc.), so that the shareholder does not need to appoint a financial intermediary.

### MAIN ADVANTAGES OF REGISTERED SHARES

The advantages of registered shares include:

- double voting rights if the shares are held continuously for more than two successive years (refer to point 7.2.4.1 of chapter 7),
- a customer relations center, Nomilia, available in six languages 24/7 by phone on +33 (0)2 51 85 67 89 (local call rate) with access to an advisor from Société Générale Securities Services, from Monday to Friday (business days) from 8.30 a.m. to 6.00 p.m., Paris time,
- registration as a recipient of all information published by the TotalEnergies for its shareholders,
- the ability to join the TotalEnergies Shareholders' Club by holding at least 50 shares.

The advantages of pure registered shares, in addition to those of administered registered shares, include:

- no custodial fees,
- easier placement of market orders[(1)] (phone, mail, fax, Internet),
- brokerage fees of 0.19% (incl. tax) of the gross amount of the trade, with no minimum charge and up to €1,000 per trade,
- the option to view and manage shareholdings online via the Sharinbox site.

To convert TotalEnergies shares into pure registered shares, shareholders must fill out a form that can be obtained upon request from the Individual Shareholder Relations Department and send it to their financial intermediary.

(1) Provided the subscriber has signed the market service agreement. Signing this agreement is free of charge.

## 6.6.4 Forecast financial calendar for 2023

| | |
|---|---|
| February 8 | Results of the fourth quarter and full year 2022 and Investors' Day |
| March 21 | Investors' presentation Strategy, Sustainability & Climate |
| March 22 | Ex-dividend date for the third 2022 interim dividend |
| April 27 | Results of the first quarter of 2023 |
| May 26 | 2023 Annual Shareholders' Meeting in Paris |
| June 21 | Ex-dividend date for the 2022 final dividend(a) |
| July 27 | Results of the second quarter and first half of 2023 |
| September 20 | Ex-dividend date for the first 2023 interim dividend(b) |
| September 27 | Investors' Day (outlook and objectives) |
| October 26 | Results of the third quarter and first nine months of 2023 |

(a) Subject to approval at the Annual Shareholders' Meeting on May 26, 2023.
(b) Subject to the Board of Directors' decision.

The calendar including Shareholders' Meetings and investor fairs is available on the TotalEnergies website (under Investors).

## 6.6.5 Forecast financial calendar for 2024

| | |
|---|---|
| January 2 | Ex-dividend date for the second 2023 interim dividend(a) |
| March 20 | Ex-dividend date for the third 2023 interim dividend(a) |
| May 24 | 2024 Annual Shareholders' Meeting in Paris |
| June 19 | Ex-dividend date for the final 2023 dividend(b) |

(a) Subject to the Board of Directors' decision.
(b) Subject to approval at the Annual Shareholders' Meeting on May 24, 2024.

## 6.6.6 Contacts

Mr. Renaud Lions
Senior Vice President of Investor Relations, TotalEnergies SE

TotalEnergies SE
Tour Coupole 2, Place Jean Millier
92078 Paris La Défense Cedex, France
Email address: ir@totalenergies.com
Tel: +33 (0) 1 47 44 46 46

Mr. Vincent Granier
Head of Individual Shareholder Relations

TotalEnergies SE Individual Shareholder Relations Department
Tour Coupole 2, Place Jean Millier
92078 Paris La Défense Cedex, France
Email address: actionnaires@totalenergies.com

Tel. (Monday to Friday from 9:00 a.m. to 12:30 p.m. and from 1:30 p.m. to 5:00 p.m., Paris time):

– From France: 0800 039 039 (toll-free number from a landline);
– from other countries: +33 (0) 1 47 44 24 02.

# 7

# General information

# 7.1 Share capital

## 7.1.1 Amount of share capital

On February 7, 2023, the Board of Directors decided to decrease the share capital of TotalEnergies SE by way of cancellation of 128,869,261 treasury shares. As of February 7, 2023, the share capital of the Corporation thus amounts to €6,225,655,060.00 and is divided into 2,490,262,024 shares.

As of December 31, 2022, the share capital amounted to €6,547,828,212.50, divided into 2,619,131,285 ordinary shares, each with a par value of €2.50. All the shares issued have been fully paid up.

## 7.1.2 Features of the shares

There is a single category of shares. The shares are registered or in bearer form, at the shareholder's discretion. Double voting rights are granted to registered shares under the conditions set out in point 7.2.4.1 of this chapter.

The shares are in book-entry form and registered in an account.

## 7.1.3 Potential capital as of December 31, 2022

The potential share capital consists of the existing share capital to which are added the new TotalEnergies shares that could be issued in the event of (i) the conversion or reimbursement in shares of all the securities giving access to the share capital, or (ii) the exercise of all the share subscription options.

As of December 31, 2022, there were no financial instruments likely to result in the creation of new TotalEnergies shares.

## 7.1.4 History of changes in share capital between 2020 and 2022

| Transaction acknowledgment date | Shares created/ (canceled) *(number of shares)* | Type of transaction *(share capital increase/reduction)* | Nominal amount of the transaction *(euros)* | Issuance/ share premium per share *(euros)* | Share capital after the transaction *(euros)* | Shares composing the capital after the transaction *(number of shares)* |
|---|---|---|---|---|---|---|
| **FISCAL YEAR 2020** | | | | | | |
| April 27, 2020 | 18,879 | Increase - Deferred contribution pursuant to the 2015 capital increase reserved for employees | 47,197.50 | n/a[(a)] | 6,504,749,885.00 | 2,601,899,954 |
| June 11, 2020 | 13,160,383 | Share capital increase reserved for employees | 32,900,957.50 | 23.70[(b)] | 6,537,650,842.50 | 2,615,060,337 |
| July 16, 2020 | 38,063,688 | Increase - Payment of the 2019 final dividend | 95,159,220.00 | 26.30 | 6,632,810,062.50 | 2,653,124,025 |

(a) The creation of 18,879 shares as deferred contribution to the 2015 capital increase reserved for employees, in the form of free shares pursuant to Article L. 225-197-1 of the French Commercial Code, did not include an issuance premium.
(b) Only the 12,952,925 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 207,458 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

| Transaction acknowledgment date | Shares created/ (canceled) *(number of shares)* | Type of transaction *(share capital increase/reduction)* | Nominal amount of the transaction *(euros)* | Issuance/ share premium per share *(euros)* | Share capital after the transaction *(euros)* | Shares composing the capital after the transaction *(number of shares)* |
|---|---|---|---|---|---|---|
| **FISCAL YEAR 2021** | | | | | | |
| February 8, 2021 | (23,284,409) | Reduction – Cancellation of treasury shares | (58,211,022.50) | n/a | 6,574,599,040.00 | 2,629,839,616 |
| June 9, 2021 | 10,589,713 | Share capital increase reserved for employees | 26,474,282.50 | 28.00[(a)] | 6,601,073,322.50 | 2,640,429,329 |

(a) Only the 10,376,190 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 213,523 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

| Transaction acknowledgment date | Shares created/ (canceled) *(number of shares)* | Type of transaction *(share capital increase/reduction)* | Nominal amount of the transaction *(euros)* | Issuance/ share premium per share *(euros)* | Share capital after the transaction *(euros)* | Shares composing the capital after the transaction *(number of shares)* |
|---|---|---|---|---|---|---|
| **FISCAL YEAR 2022** | | | | | | |
| February 9, 2022 | (30,665,526) | Reduction – Cancellation of treasury shares | (76,663,815.00) | n/a | 6,524,409,507.50 | 2,609,763,803 |
| April 26, 2022 | 9,471 | Increase - Deferred contribution pursuant to the 2015 capital increase reserved for employees | 23,667.50 | n/a | 6,524,433,185.00 | 2,609,773,274 |
| June 8, 2022 | 9,358,011 | Share capital increase reserved for employees | 23,395,027.50 | 34.50[(a)] | 6,547,828,212.50 | 2,619,131,285 |

(a) Only the 9,130,380 shares subscribed by the employees as part of the share capital increase included an issuance premium. The 227,631 shares created for the matching contribution, in the form of free shares pursuant to Article L. 3332-21 of the French Labor Code, did not include an issuance premium.

# 7.2 Articles of Association; other information

The Annual Shareholders' Meeting on May 29, 2020, approved to transform TOTAL S.A. into a European company *(Societas Europaea* or SE). The legal status of a European company is common to all the countries in the European Union and is used by an increasing number of companies in France and in Europe. This status better reflects the economic and social reality of TotalEnergies and ensures that its European dimension is fully recognized.

The Corporation officially became a European company on the date it was registered under its new status in the Nanterre Trade and Companies Register, on July 16, 2020. The process was completed without the creation of a new legal entity and had no impact on the Company's governance, activities, tax affairs or organization, the listing places or the location of the registered office, which remained in France.

The Shareholders' Meeting on May 28, 2021 decided to change the corporate name to TotalEnergies SE, thereby anchoring the Corporation's transformation into a multi-energy company.

## 7.2.1 General information concerning the Corporation

The Corporation's name is TotalEnergies SE.

TotalEnergies SE is a European company governed by French law. The registered office is located at 2, Place Jean Millier, La Défense 6, 92400 Courbevoie, France. It is registered in the Nanterre Trade and Companies Register under No. 542 051 180.

The Corporation's term was extended until March 28, 2119, *i.e.*, it will expire on March 28, 2119, unless dissolved prior to this date or extended.

Fiscal year: from January 1 to December 31 of each year.

LEI (Legal Entity Identifier): 529900S21EQ1BO4ESM68.

EC Registration Number: FR 59 542 051 180.

APE Code (NAF): 111Z until January 7, 2008; 7010Z since January 8, 2008.

The Corporation's Articles of Association are available on the Company's website.

The telephone number is +33 (0)1 47 44 45 46 and its Internet address is totalenergies.com.

## 7.2.2 Corporate purpose

The purpose of the Corporation, directly and indirectly and in all countries, is:

1. All activities relating to production and distribution of all forms of energy, including electricity from renewables;
2. The search for and extraction of mining deposits, particularly all forms of hydrocarbons, and the production, refining, transportation, processing and trading in said materials as well as their derivatives and by-products;
3. All activities relating to the chemicals sector in all its forms and to the rubber sector;

And in general, all financial, commercial, industrial, securities or real estate transactions, and acquisitions of interests or holdings in any form whatsoever, in any business or company existing or to be created that may relate, directly or indirectly, to the above-mentioned purposes or to any similar or related purposes, of such nature as to promote the Company's expansion or its development.

## 7.2.3 Provisions of the Articles of Association governing the administration and management bodies

### 7.2.3.1 ELECTION OF DIRECTORS AND TERM OF OFFICE

Directors are elected up to a maximum number of directors authorized by law (currently 18) by the Shareholders' Meeting, which determines the duration of their term of office not to exceed three years, subject to the legal provisions that allow the term to be extended until the next Ordinary Shareholders' Meeting called to approve the financial statements for the previous fiscal year.

In addition, one director representing the employee shareholders is elected by the Shareholders' Meeting for a three-year term from a list of at least two candidates preselected by the employee shareholders under the conditions provided for by the laws, regulations and Articles of Association in force. However, his or her term shall expire automatically once this director is no longer an employee or a shareholder. The Board of Directors may meet and conduct valid deliberations until the date his or her replacement is named.

In addition, a director representing the employees is designated by the Corporation's Central Social and Economic Committee. Where the number of directors appointed by the Shareholders' Meeting is greater than eight[(1)], a second director representing the employees is designated by the TotalEnergies European Works Council (the SE Committee). In accordance with applicable legal provisions, the director elected by the Central Social and Economic Committee must have held an employment contract with the Corporation or one of its direct or indirect subsidiaries, whose registered office is based in mainland France, for at least two years prior to appointment. By way of derogation, the second director elected by the SE Committee must have held an employment contract with the Corporation or one of its direct or indirect subsidiaries for at least two years prior to appointment. The term of office for a director representing the employees is three years. However, the term of office ends following the Ordinary Shareholders' Meeting called to approve the financial statements for the last fiscal year and held in the year during which the said director's term of office expires.

#### 7.2.3.2 AGE LIMIT OF DIRECTORS

On the closing date of each fiscal year, the number of individual directors over the age of 70 may not be greater than one third of the directors in office. If that number is exceeded, the oldest Board member is automatically considered to have resigned. The permanent representative of a legal entity director must be less than 70 years old.

#### 7.2.3.3 AGE LIMIT OF THE CHAIRPERSON OF THE BOARD AND THE CHIEF EXECUTIVE OFFICER

The office of the Chairperson of the Board of Directors automatically ceases on his or her 70th birthday at the latest.

To hold this office, the Chief Executive Officer must be under the age of 67. When the age limit is reached during his or her duties, such duties automatically cease, and the Board of Directors elects a new Chief Executive Officer. However, his or her duties as Chief Executive Officer will continue until the date of the Board of Directors' meeting aimed at electing his or her successor. Subject to the age limit specified above, the Chief Executive Officer can always be re-elected.

The age limits specified above are stipulated in the Corporation's Articles of Association.

#### 7.2.3.4 MINIMUM INTEREST IN THE COMPANY HELD BY DIRECTORS

Each director (other than the director representing employee shareholders or the directors representing employees) must own at least 1,000 shares during his or her term of office. If, however, any director ceases to own the required number of shares, they may adjust their position subject to the conditions set by law. The director representing employee shareholders must hold, during his or her term of office, either individually or through a Company Savings Plan (*Fonds Commun de Placement d'Entreprise*, FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code, at least one share or a number of units in said fund equivalent to at least one share. The directors representing employees are not required to be shareholders.

#### 7.2.3.5 MAJORITY RULES FOR BOARD MEETINGS

Decisions are adopted by a majority vote of the directors present or represented. In the event of a tie vote, the person chairing the meeting shall cast the deciding vote.

When permitted by applicable regulations, directors participating in the meeting by means of video conferencing or telecommunications as defined by decree shall be deemed present for the calculation of the *quorum* and the majority.

#### 7.2.3.6 RULES OF PROCEDURE AND COMMITTEES OF THE BOARD OF DIRECTORS

Refer to point 4.1.2 of chapter 4.

#### 7.2.3.7 FORM OF MANAGEMENT

Management of the Corporation is assumed either by the Chairperson of the Board of Directors (who then holds the title of the Chairman and Chief Executive Officer), or by another person appointed by the Board of Directors with the title of Chief Executive Officer. It is the responsibility of the Board of Directors to choose between these two forms of management under the majority rules described above.

At its meeting on December 16, 2015, the Board of Directors decided to reunify the positions of Chairperson and Chief Executive Officer of the Company as from December 19, 2015. Since that date, Mr. Pouyanné has held the position of Chairman and Chief Executive Officer of TotalEnergies SE. After his term of office as director was renewed for a three-year period at the Shareholders' Meeting on May 28, 2021, the Board of Directors reappointed Mr. Pouyanné as Chairman and Chief Executive Officer for the same period, expiring at the end of the 2024 Shareholders' Meeting called to approve the financial statements for fiscal year 2023. For additional information on the governance structure, refer to point 4.1.5.1 of chapter 4.

### 7.2.4 Rights, privileges and restrictions attached to the shares

In addition to the voting right, each share entitles the holder to a portion of the corporate assets, distributions of profits and liquidation dividend that is proportional to the number of shares issued, subject to the laws and regulations in force, as well as the Articles of Association.

No privilege is attached to a specific class of shares or to a specific class of shareholders.

Shareholders may have double voting rights under the conditions provided for in the French Commercial Code and in article 18 of the Company's Articles of Association, as described in section 7.2.4.1 of this chapter.

(1) Neither the director representing employee shareholders, elected by the Annual Shareholders' Meeting, nor the director(s) representing employees are taken into consideration when calculating the eight-member threshold, which is assessed on the date on which the employee director(s) is/are elected.

#### 7.2.4.1 DOUBLE VOTING RIGHTS

Double voting rights, in relation to the portion of share capital they represent, are granted to all fully paid-up registered shares held continuously in the name of the same shareholder for at least two years[(1)], and to registered shares allotted free of charge to a shareholder in the case of a share capital increase by means of capitalization of reserves, profits or premiums on the basis of existing shares which entitle the shareholder to a double voting right.

The draft resolutions, drawn up as at the date of this Universal Registration Document, plan to submit to a vote at the Annual Shareholders' Meeting to be held on May 26, 2023 a resolution aiming to delete the double voting right so as, at the end of the Shareholders' Meeting, each share of the Corporation gives right to one voting right, in accordance with the option given by Article L. 22-10-46 of the French Commercial Code.

#### 7.2.4.2 LIMITATION OF VOTING RIGHTS

Article 18 of the Corporation's Articles of Association provides that at Shareholders' Meetings, no shareholder may cast, by himself or through his agent, on the basis of the single voting rights attached to the shares he holds directly or indirectly and the shares for which he holds powers, more than 10% of the total number of voting rights attached to the shares of the Corporation. In the case of double voting rights, by himself or through his agent, this limit may be exceeded, taking only the resulting additional voting rights into account, provided that the total voting rights that he exercises do not exceed 20% of the total voting rights associated with the shares of the Corporation.

Additionally, Article 18 of the Articles of Association also provides that the limitation on voting rights no longer applies, absent any decision of the Shareholders' Meeting, if an individual or a legal entity acting solely or together with one or more individuals or entities acquires at least two thirds of the shares of the Corporation following a public tender offer for all the shares of the Corporation. In that case, the Board of Directors acknowledges that the limitation no longer applies and carries out the necessary procedure to modify the Corporation's Articles of Association accordingly.

Once acknowledged, the fact that the limitation no longer applies is final and applies to all Shareholders' Meetings following the public tender offer under which the purchase of at least two thirds of the overall number of shares of the Corporation was made possible, and not solely to the first meeting following that public tender offer.

Since in such circumstances the limitation no longer applies, such limitation on voting rights cannot prevent or delay any takeover of the Corporation, except in case of a public tender offer where the bidder does not acquire at least two thirds of the Corporation's shares.

#### 7.2.4.3 FRACTIONAL RIGHTS

Whenever it is necessary to own several shares in order to exercise a right, a number of shares less than the number required does not give the owners any right with respect to the Corporation; in such case, the shareholders are responsible for aggregating the required number of shares.

#### 7.2.4.4 STATUTORY ALLOCATION OF PROFITS

The Corporation may distribute dividends under the conditions provided for by the French Commercial Code and the Corporation's Articles of Association.

The net profit for the period is equal to the net income minus general expenses and other personnel expenses, all amortization and depreciation of the assets, as well as all provisions for commercial and industrial contingencies.

From this profit, minus prior losses, if any, the following items are deducted in the order indicated:

- 5% to constitute the legal reserve fund, until said fund reaches 10% of the share capital,
- the amounts set by the Shareholders' Meeting in order to fund reserves for which it determines the allocation or use, and
- the amounts that the Shareholders' Meeting decides to retain.

The remainder is paid to the shareholders as dividends.

The Board of Directors may pay interim dividends.

The Shareholders' Meeting held to approve the financial statements for the fiscal year may decide to grant shareholders an option, for all or part of the dividend or interim dividends, between payment of the dividend in cash or in shares.

The Shareholders' Meeting may decide at any time, but only based on a proposal by the Board of Directors, to make a full or partial distribution of the amounts in the reserve accounts, either in cash or in shares of the Corporation.

Dividends that have not been claimed at the end of a five-year period are forfeited to the French State.

### 7.2.5 Amending shareholders' rights

Any amendment to the Articles of Association must be approved or authorized by the Shareholders' Meeting voting with the *quorum* and majority required by the laws and regulations governing Extraordinary Shareholders' Meetings.

### 7.2.6 Shareholders' Meetings

Refer to point 4.4.3 of chapter 4 for the terms and conditions of the notice of and admission to Shareholders' Meetings.

### 7.2.7 Identification of the holders of bearer shares

In accordance with Article 9 of its Articles of Association, TotalEnergies SE is entitled to make use of the legal provisions regarding the identification of holders of securities that grant an immediate or future voting right at the Corporation's Shareholders' Meetings.

(1) This term is not interrupted and the right acquired is retained in case of a conversion of bearer to bearer pursuant to intestate or testamentary succession, share of community property between spouses or donation to the spouse or relatives entitled to inherit (Article 18 § 6 of the Articles of Association).

Law No. 2019-486 of May 22, 2019, on the growth and transformation of businesses amended Article L. 228-2 of the French Commercial Code to stipulate that this ability to make use of the procedure is a matter of law, and any provision of the Articles of Association to the contrary shall be deemed unwritten.

## 7.2.8 Thresholds to be declared according to the Articles of Association

Any individual or entity who directly or indirectly acquires a percentage of the share capital, voting rights or rights giving future access to the share capital of the Corporation that is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Corporation within 15 days of crossing each threshold, by registered mail with return receipt requested, and to declare the number of securities held.

In the event that the shares above these thresholds are not declared, as specified in the preceding paragraph, any shares held in excess of the threshold that should have been declared will be deprived of voting rights at Shareholders' Meetings if, at a Shareholders' Meeting, the failure to make a declaration is acknowledged and if one or more shareholders holding collectively at least 3% of the Corporation's share capital or voting rights so request at that meeting.

All individuals and entities are also required to notify the Corporation, in due form and within the time limits stated above, when their direct or indirect holdings fall below each of the thresholds mentioned in the first paragraph.

## 7.2.9 Changes in the share capital

The Corporation's share capital may be changed only under the conditions stipulated by the legal and regulatory provisions in force. No provision of the Articles of Association, charter, or internal regulations provide for more stringent conditions than the law governing changes in the Corporation's share capital.

The French Commercial Code stipulates that shareholders hold, in proportion to their number of shares, a preemptive subscription right to shares issued for cash as par of share capital increase. The Extraordinary Shareholders' Meeting can decide, under the conditions provided for by law, to remove this preemptive subscription right.

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

# 9

# Supplemental oil and gas information (unaudited)

# 9.1 Oil and gas information pursuant to FASB Accounting Standards Codification 932

Proved reserves estimates are calculated according to the Securities and Exchange Commission (SEC) Rule 4-10 of Regulation S-X set forth in the "Modernization of Oil and Gas Reporting" release (SEC Release n° 33-8995) and the Financial Accounting Standard Board (FASB) Accounting Standards Update regarding Extractive Activities – Oil and Gas (ASC 932), which provide definitions and disclosure requirements.

## 9.1.1 Assessment process for reserves

Reserves estimations are performed by experienced geoscientists, engineers and economists under the supervision of each subsidiary's General Management. Staff involved in reserves evaluation are trained to follow SEC-compliant internal guidelines and policies regarding criteria that must be met before reserves can be considered as proved. As of December 31, 2022, all of the Company's proved reserves held in consolidated subsidiaries and equity affiliates are estimated within the affiliates of the Company.

The technical validation process relies on a Technical Reserves Committee that is responsible for approving proved reserves variations above a certain threshold and technical evaluations of reserves associated with an investment decision that requires approval from the Exploration & Production Executive Committee. The Chairman of the Technical Reserves Committee is appointed by the President of Exploration & Production and the President of the OneTech Branch, and its members have expertise in reservoir engineering, production geology, production geophysics, reserves methodology, drilling and development studies.

An internal control process related to reserves estimation is formalized and involves the following elements:

- a central Reserves Entity, the role of which is to consolidate, document and archive the Company's reserves; to ensure coherence of evaluations worldwide; to maintain the Corporate Reserves Guidelines Standards in line with SEC guidelines and policies; to deliver training on reserves evaluation and classification; and to conduct periodically in-depth technical review of reserves for each affiliate,
- an annual review of affiliate reserves conducted by an internal group of specialists selected for their expertise in geosciences and engineering and their knowledge of the affiliates. All members of this group, chaired by the Reserves Vice-President of the Company and composed of at least three Technical Reserves Committee members, are knowledgeable in the SEC guidelines for proved reserves evaluation. Their responsibility is to provide an independent review of significant reserves changes proposed by affiliates and ensure that reserves are estimated using appropriate standards and procedures,
- Following the annual review of the reserves, a SEC Reserves Committee chaired by the Exploration & Production Senior Vice President Finance and Economics and comprised of the New Business - Carbon Neutrality EP, the Legal EP, the Finance EP, the Reserves Vice Presidents as well as the Chairman of the Technical Reserves Committee, approves the elements of the SEC reserves booking proposals concerning criteria that are not dependent upon technical expertise (reservoir, geosciences, etc.). The results of the annual review and the proposals for including revisions or additions of SEC Proved Reserves are presented to the Exploration & Production Executive Committee for approval before final validation by the Company's General Management and Chief Financial Officer.

The reserves evaluation and control process are audited periodically by the Company's internal auditors.

The Reserves Vice-President in charge of the central Reserves Entity is appointed by the President of Exploration & Production. As Reserves Vice-President, he supervises the Reserves Entity, chairs the annual review of reserves, and is member of the Technical Reserves Committee and the SEC Reserves Committee. The Reserves Vice-President is also member of the Development Committee of the OneTech Branch. The current Reserves Vice-President has over 33 years of experience in the oil and gas industry, with skills in geosciences and reservoir engineering, as well as in the field of reserves evaluation and control process. He holds an engineering degree from Ecole Nationale Supérieure de Géologie de Nancy, France and a Master of Science from Stanford University, California. He is an active member of the SPE (Society of Petroleum Engineers) for more than 30 years.

## 9.1.2 Proved developed reserves

As of December 31, 2022, TotalEnergies' proved developed reserves of hydrocarbons (oil, bitumen and gas) were 6,990 Mboe and represented 69% of the proved reserves. As of December 31, 2021, proved developed reserves of hydrocarbons were 7,980 Mboe and represented 66% of the proved reserves. As of December 31, 2020, proved developed reserves of hydrocarbons were 7,985 Mboe and represented 65% of the proved reserves.

A year-over-year revision of -1,086 Mboe was recorded after the deconsolidation of Company's share in Novatek at December 31, 2022.

## 9.1.3 Proved undeveloped reserves

As of December 31, 2022, TotalEnergies' proved undeveloped reserves (PUDs) of hydrocarbons were 3,200 Mboe compared to 4,082 Mboe as of December 31, 2021 and 4,343 Mboe as of December 31, 2020.

The variation between December 31, 2021 and December 31, 2022 is due to:

- -653 Mboe due to Novatek, including a revision of -536 Mboe recorded after the deconsolidation of the Company's share in this company, and the transfer of PUDs to proved developed reserves,
- Excluding Novatek, -380 Mboe converted from PUDs to proved developed reserves; -40 Mboe of net revisions of previous estimates; -57 Mboe from sales; +205 Mboe related to extensions and discoveries; +43 Mboe from acquisitions.

The revisions of previous estimates consist of -138 Mboe due to change of economic factors mainly from production sharing contracts, +28 Mboe due to technical revisions and +70 Mboe due to improved recovery.

Extensions and discoveries are mainly in Argentina, United States, Angola and Brazil.

Sales are mainly in Russia and acquisitions are mainly in Brazil.

In 2022, 380 Mboe were converted from PUDs to proved developed reserves within the scope of development activities in Brazil, United Arab Emirates, Angola, Nigeria, Russia, Norway, Qatar, Kazakhstan, Argentina, United States, Australia, China, Egypt, Iraq, Libya, Denmark and Oman. This confirms once again the Company's ability to develop and bring into production large scale and complex projects.

In 2022, the costs incurred to develop proved undeveloped reserves (excluding Novatek) were $5.0 billion, which represented 75% of 2022 development costs incurred, and were related to projects located for the most part in the United Arab Emirates, the United States, Uganda, Qatar, Norway, Nigeria and Oman.

The Company's PUDs that may remain undeveloped for five years or more after first disclosure (PUD5+) correspond to the remaining PUD on large scale and complex development projects and to field development projects the implementation of which is dependent on capacity constraints.

Although the Company has converted significant amount of reserves associated to large scale and complex projects from PUD5+ into developed reserves in the last years, those projects still hold PUD5+ that are expected to be developed over time as part of initial field development plans or additional development phases.

In addition, some projects are designed and optimized for a given production capacity that controls the pace at which the field is developed and the wells are drilled. At production start-up, only a portion of the proved reserves is developed to meet capacity constraints and contractual obligations.

Under these specific circumstances, the Company believes that it is justified to report those PUDs as proved reserves, despite the fact that some of these PUDs may remain undeveloped for more than five years.

## 9.1.4 Estimated proved reserves of oil, bitumen and gas

The following tables present, for oil, bitumen and gas reserves, an estimate of the Company's oil, bitumen and gas quantities by geographic areas as of December 31, 2022, 2021 and 2020.

Quantities shown correspond to proved developed and undeveloped reserves together with changes in quantities for 2022, 2021 and 2020.

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the revised Rule 4-10 of SEC Regulation S-X.

All references in the following tables to reserves or production are to the Company's entire share of such reserves or production. TotalEnergies's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

A year-over-year revision of -1,622 Mboe was recorded due to the deconsolidation of Company's share in Novatek at December 31, 2022.

Excluding Novatek, year-over-year variations in proved reserves at December 31, 2022 are detailed in sections 9.1.2, 9.1.3 and are complemented below.

For consolidated subsidiaries, the revisions of +473 Mboe for the year 2022 were due to:

- +354 Mboe due to new information obtained from drilling and production history, notably underpinned by production ramp up for recent developments, mainly in Brazil, Algeria, United Arab Emirates, Norway, Angola and United Kingdom,
- +359 Mboe due to change of economic factors leading to extended economic life mainly in North America and in mature assets in North Sea and Gulf of Guinea,
- -240 Mboe resulting from contractual and royalty effects linked to high prices in 2022.

For consolidated subsidiaries, the acquisitions correspond to the recognition of proved reserves in Brazil and Libya. The sales were completed in Venezuela, in Angola, in Russia, in Iraq, in the United Kingdom and in Yemen.

For equity affiliates, year-over-year revisions of +59 Mboe at December 31, 2022 were due to new information obtained from drilling and production history and improved recovery projects, mainly in Qatar.

For equity affiliates, the sale of the 49% interest in Terneftegas was completed in Russia.

## 9.1.4.1 CHANGES IN OIL, BITUMEN AND GAS RESERVES

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| **Proved developed and undeveloped reserves** *(in million barrels of oil equivalent)* | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **1,899** | **1,819** | **1,333** | **1,300** | **10** | **2,016** | **8,377** |
| Revisions of previous estimates | 61 | (131) | 61 | 106 | 4 | 175 | 276 |
| Extensions, discoveries and other | 19 | 13 | 25 | – | – | <1 | 57 |
| Acquisitions of minerals in place | – | – | – | – | – | 206 | 206 |
| Sales of minerals in place | – | – | (8) | (10) | – | (3) | (21) |
| Production for the year | (222) | (129) | (111) | (177) | (2) | (149) | (790) |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **1,757** | **1,572** | **1,300** | **1,219** | **12** | **2,245** | **8,105** |
| Revisions of previous estimates | 134 | 132 | 33 | 231 | (3) | 51 | 578 |
| Extensions, discoveries and other | 285 | 24 | 7 | 17 | <1 | 100 | 433 |
| Acquisitions of minerals in place | – | 12 | – | – | – | 41 | 53 |
| Sales of minerals in place | (16) | – | – | – | – | – | (16) |
| Production for the year | (187) | (135) | (113) | (162) | (1) | (164) | (762) |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **1,973** | **1,605** | **1,227** | **1,305** | **8** | **2,273** | **8,391** |
| Revisions of previous estimates | (27) | 294 | 14 | 97 | | 95 | 473 |
| Extensions, discoveries and other | 15 | 153 | 16 | 4 | | 15 | 203 |
| Acquisitions of minerals in place | – | 182 | – | – | | 42 | 224 |
| Sales of minerals in place | (9) | (21) | – | (11) | | (9) | (50) |
| Production for the year | (166) | (155) | (96) | (164) | | (178) | (759) |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **1,786** | **2,058** | **1,161** | **1,239** | | **2,238** | **8,482** |
| **Minority interest in proved developed and undeveloped reserves as of** | | | | | | | |
| December 31, 2020 – Brent at 41.32$/b | 52 | – | – | – | – | – | 52 |
| Decembre 31, 2021 – Brent at 69.23$/b | 61 | – | – | – | – | – | 61 |
| **DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **53** | **–** | **–** | **–** | | **–** | **53** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

| Proved developed and undeveloped reserves<br>*(in million barrels of oil equivalent)* | Equity affiliates<br>Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total | *Total excl. Novatek[(b)]* |
|---|---|---|---|---|---|---|---|---|
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **47** | **98** | **–** | **–** | **2,973** | **1,186** | **4,304** | ***2,389*** |
| Revisions of previous estimates | 41 | (19) | – | – | 54 | 10 | 86 | *50* |
| Extensions, discoveries and other | – | – | – | – | 89 | 5 | 94 | *5* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | – |
| Sales of minerals in place | – | – | – | – | – | – | – | – |
| Production for the year | (9) | (<1) | – | – | (173) | (79) | (261) | *(147)* |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **79** | **79** | **–** | **–** | **2,943** | **1,122** | **4,223** | ***2,297*** |
| Revisions of previous estimates | (3) | (<1) | – | – | (473) | 82 | (394) | *(144)* |
| Extensions, discoveries and other | – | – | – | – | 187 | – | 187 | *8* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | – |
| Sales of minerals in place | – | (78) | – | – | – | – | (78) | *(78)* |
| Production for the year | (7) | (1) | – | – | (180) | (79) | (267) | *(154)* |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **69** | **–** | **–** | **–** | **2,477** | **1,125** | **3,671** | ***1,929*** |
| Revisions of previous estimates | 8 | – | – | (1,621) | | 50 | (1,563) | *59* |
| Extensions, discoveries and other | 2 | – | – | – | | – | 2 | *2* |
| Acquisitions of minerals in place | – | – | – | – | | – | – | – |
| Sales of minerals in place | – | – | – | (152) | | – | (152) | *(152)* |
| Production for the year | (6) | – | – | (170) | | (74) | (250) | *(130)* |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **73** | **–** | **–** | **534** | | **1,101** | **1,708** | ***1,708*** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

| Proved developed and undeveloped reserves *(in million barrels of oil equivalent)* | Consolidated subsidiaries and equity affiliates: Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total | *Total excl. Novatek[(b)]* |
|---|---|---|---|---|---|---|---|---|
| **AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **1,836** | **1,651** | **1,300** | **1,219** | **2,955** | **3,367** | **12,328** | ***10,402*** |
| Consolidated subsidiaries | 1,757 | 1,572 | 1,300 | 1,219 | 12 | 2,245 | 8,105 | *8,105* |
| Equity affiliates | 79 | 79 | – | – | 2,943 | 1,122 | 4,223 | *2,297* |
| **Proved developed reserves** | **1,083** | **859** | **994** | **816** | **1,470** | **2,763** | **7,985** | ***6,954*** |
| Consolidated subsidiaries | 1,070 | 816 | 994 | 816 | 8 | 1,803 | 5,507 | *5,507* |
| Equity affiliates | 13 | 43 | – | – | 1,462 | 960 | 2,478 | *1,447* |
| **Proved undeveloped reserves** | **753** | **792** | **306** | **403** | **1,485** | **604** | **4,343** | ***3,448*** |
| Consolidated subsidiaries | 687 | 756 | 306 | 403 | 4 | 442 | 2,598 | *2,598* |
| Equity affiliates | 66 | 36 | – | – | 1,481 | 162 | 1,745 | *850* |
| **AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **2,042** | **1,605** | **1,227** | **1,305** | **2,485** | **3,398** | **12,062** | ***10,320*** |
| Consolidated subsidiaries | 1,973 | 1,605 | 1,227 | 1,305 | 8 | 2,273 | 8,391 | *8,391* |
| Equity affiliates | 69 | – | – | – | 2,477 | 1,125 | 3,671 | *1,929* |
| **Proved developed reserves** | **1,010** | **823** | **957** | **907** | **1,543** | **2,740** | **7,980** | ***6,891*** |
| Consolidated subsidiaries | 1,005 | 823 | 957 | 907 | 7 | 1,789 | 5,488 | *5,488* |
| Equity affiliates | 5 | – | – | – | 1,536 | 951 | 2,492 | *1,403* |
| **Proved undeveloped reserves** | **1,032** | **782** | **270** | **398** | **942** | **658** | **4,082** | ***3,429*** |
| Consolidated subsidiaries | 968 | 782 | 270 | 398 | 1 | 484 | 2,903 | *2,903* |
| Equity affiliates | 64 | – | – | – | 941 | 174 | 1,179 | *526* |
| **AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **1,859** | **2,058** | **1,161** | **1,773** | | **3,339** | **10,190** | ***10,190*** |
| Consolidated subsidiaries | 1,786 | 2,058 | 1,161 | 1,239 | | 2,238 | 8,482 | *8,482* |
| Equity affiliates | 73 | – | – | 534 | | 1,101 | 1,708 | *1,708* |
| **Proved developed reserves** | **919** | **1,243** | **920** | **1,173** | | **2,735** | **6,990** | ***6,990*** |
| Consolidated subsidiaries | 914 | 1,243 | 920 | 842 | | 1,785 | 5,704 | *5,704* |
| Equity affiliates | 5 | – | – | 331 | | 950 | 1,286 | *1,286* |
| **Proved undeveloped reserves** | **940** | **815** | **241** | **600** | | **604** | **3,200** | ***3,200*** |
| Consolidated subsidiaries | 872 | 815 | 241 | 397 | | 453 | 2,778 | *2,778* |
| Equity affiliates | 68 | – | – | 203 | | 151 | 422 | *422* |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

### 9.1.4.2 CHANGES IN OIL & BITUMEN RESERVES

The oil reserves include crude oil, condensates and natural gas liquids reserves[(1)].

| | Consolidated subsidiaries | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Oil | | | | | | | Bitumen |
| Proved developed and undeveloped reserves *(in million barrels)* | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total | Americas |
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **1,032** | **370** | **565** | **633** | **8** | **1,758** | **4,366** | **806** |
| Revisions of previous estimates | 50 | 169 | 56 | 34 | 4 | 164 | 477 | (309)[(b)] |
| Extensions, discoveries and other | 1 | 4 | <1 | – | – | 1 | 6 | – |
| Acquisitions of minerals in place | – | – | – | – | – | 169 | 169 | – |
| Sales of minerals in place | – | – | (8) | (10) | – | (3) | (21) | – |
| Production for the year | (177) | (28) | (38) | (88) | (2) | (128) | (461) | (30) |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **906** | **515** | **575** | **569** | **10** | **1,961** | **4,536** | **467** |
| Revisions of previous estimates | 89 | 45 | 22 | 104 | (2) | 39 | 297 | (17) |
| Extensions, discoveries and other | 272 | 5 | <1 | 6 | <1 | 8 | 291 | – |
| Acquisitions of minerals in place | – | 12 | – | – | – | 11 | 23 | – |
| Sales of minerals in place | (14) | – | – | – | – | – | (14) | – |
| Production for the year | (144) | (31) | (40) | (82) | (1) | (141) | (439) | (33) |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **1,109** | **546** | **557** | **597** | **7** | **1,878** | **4,694** | **417** |
| Revisions of previous estimates | (4) | 39 | 3 | 55 | | 62 | 155 | 240[(b)] |
| Extensions, discoveries and other | 15 | 54 | – | 2 | | 1 | 72 | – |
| Acquisitions of minerals in place | – | 173 | – | – | | 34 | 207 | – |
| Sales of minerals in place | (8) | – | – | (7) | | (9) | (24) | – |
| Production for the year | (129) | (50) | (33) | (79) | | (152) | (443) | (37) |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **983** | **762** | **527** | **575** | | **1,814** | **4,661** | **620** |
| **Minority interest in proved developed and undeveloped reserves as of** | | | | | | | | |
| December 31, 2020 – Brent at 41.32$/b | 46 | – | – | – | – | – | 46 | – |
| December 31, 2021 – Brent at 69.23$/b | 54 | – | – | – | – | – | 54 | – |
| **DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **48** | **–** | **–** | **–** | | **–** | **48** | **–** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The significant revisions in 2020 and 2022 are mainly due to changes in economical conditions impacting Fort Hills mine project.

(1) The tables do not include separate figures for NGL reserves because they represented less than 8.5% of the Company's proved developed and undeveloped oil reserves in each of the years 2020, 2021 and 2022.

| Proved developed and undeveloped reserves *(in million barrels)* | Equity affiliates* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Oil | | | | | | | |
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total | *Total excl. Novatek*[b] |
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **7** | **92** | **–** | **–** | **320** | **415** | **834** | ***593*** |
| Revisions of previous estimates | 6 | (16) | – | – | 24 | 9 | 23 | *4* |
| Extensions, discoveries and other | – | – | – | – | 13 | 5 | 18 | *5* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | – |
| Sales of minerals in place | – | – | – | – | – | – | – | – |
| Production for the year | (2) | – | – | – | (27) | (45) | (74) | *(54)* |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **11** | **76** | **–** | **–** | **330** | **384** | **801** | ***548*** |
| Revisions of previous estimates | 1 | (1) | – | – | (24) | 71 | 47 | *61* |
| Extensions, discoveries and other | – | – | – | – | 34 | – | 34 | *1* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | – |
| Sales of minerals in place | – | (75) | – | – | – | – | (75) | *(75)* |
| Production for the year | (2) | <1 | – | – | (26) | (47) | (75) | *(56)* |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **10** | **–** | **–** | **–** | **314** | **408** | **732** | ***479*** |
| Revisions of previous estimates | 4 | – | – | (234) | | 47 | (183) | *50* |
| Extensions, discoveries and other | – | – | – | – | | – | – | – |
| Acquisitions of minerals in place | – | – | – | – | | – | – | – |
| Sales of minerals in place | – | – | – | (40) | | – | (40) | *(40)* |
| Production for the year | (2) | – | – | (23) | | (49) | (74) | *(54)* |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **12** | **–** | **–** | **17** | | **406** | **435** | ***435*** |

* There are no bitumen reserves for equity affiliates.
(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

| | Consolidated subsidiaries and equity affiliates* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Oil | | | | | | | | Bitumen |
| Proved developed and undeveloped reserves *(in million barrels)* | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total | *Total excl. Novatek[(b)]* | Americas |
| **AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | | | | | | | | | |
| **Proved developed and undeveloped reserves[(c)]** | **917** | **591** | **575** | **569** | **340** | **2,345** | **5,337** | ***5,084*** | **467** |
| Consolidated subsidiaries | 906 | 515 | 575 | 569 | 10 | 1,961 | 4,536 | *4,536* | 467 |
| Equity affiliates | 11 | 76 | – | – | 330 | 384 | 801 | *548* | – |
| **Proved developed reserves** | **781** | **205** | **488** | **427** | **195** | **1,882** | **3,978** | ***3,836*** | **136** |
| Consolidated subsidiaries | 779 | 162 | 488 | 427 | 8 | 1,589 | 3,453 | *3,453* | 136 |
| Equity affiliates | 2 | 43 | – | – | 187 | 293 | 525 | *383* | – |
| **Proved undeveloped reserves** | **136** | **386** | **87** | **142** | **145** | **463** | **1,359** | ***1,248*** | **331** |
| Consolidated subsidiaries | 127 | 353 | 87 | 142 | 2 | 372 | 1,083 | *1,083* | 331 |
| Equity affiliates | 9 | 33 | – | – | 143 | 91 | 276 | *165* | – |
| **AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | | | | | | | | | |
| **Proved developed and undeveloped reserves[(c)]** | **1,119** | **546** | **557** | **597** | **321** | **2,286** | **5,426** | ***5,173*** | **417** |
| Consolidated subsidiaries | 1,109 | 546 | 557 | 597 | 7 | 1,878 | 4,694 | *4,694* | 417 |
| Equity affiliates | 10 | – | – | – | 314 | 408 | 732 | *479* | – |
| **Proved developed reserves** | **731** | **183** | **479** | **438** | **189** | **1,885** | **3,905** | ***3,763*** | **136** |
| Consolidated subsidiaries | 730 | 183 | 479 | 438 | 6 | 1,582 | 3,418 | *3,418* | 136 |
| Equity affiliates | 1 | – | – | – | 183 | 303 | 487 | *345* | – |
| **Proved undeveloped reserves** | **388** | **363** | **78** | **159** | **132** | **401** | **1,521** | ***1,410*** | **281** |
| Consolidated subsidiaries | 379 | 363 | 78 | 159 | 1 | 296 | 1,276 | *1,276* | 281 |
| Equity affiliates | 9 | – | – | – | 131 | 105 | 245 | *134* | – |
| **AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | | | | | | | | | |
| **Proved developed and undeveloped reserves[(c)]** | **995** | **762** | **527** | **592** | | **2,220** | **5,096** | ***5,096*** | **620** |
| Consolidated subsidiaries | 983 | 762 | 527 | 575 | | 1,814 | 4,661 | *4,661* | 620 |
| Equity affiliates | 12 | – | – | 17 | | 406 | 435 | *435* | – |
| **Proved developed reserves** | **657** | **382** | **477** | **437** | | **1,874** | **3,827** | ***3,827*** | **385** |
| Consolidated subsidiaries | 656 | 382 | 477 | 425 | | 1,566 | 3,506 | *3,506* | 385 |
| Equity affiliates | 1 | – | – | 12 | | 308 | 321 | *321* | – |
| **Proved undeveloped reserves** | **338** | **380** | **50** | **155** | | **346** | **1,269** | ***1,269*** | **235** |
| Consolidated subsidiaries | 327 | 380 | 50 | 150 | | 248 | 1,155 | *1,155* | 235 |
| Equity affiliates | 11 | – | – | 5 | | 98 | 114 | *114* | – |

* There are no bitumen reserves for equity affiliates.

(a) As of January 1, 2022, the Europe column includes the Russia data.

(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

(c) The tables do not include separate figures for NGL reserves because they represented less than 8.5% of the Company's proved developed and undeveloped oil reserves in each of the years 2020, 2021 and 2022.

### 9.1.4.3 CHANGES IN GAS RESERVES

| Proved developed and undeveloped reserves *(in billion cubic feet)* | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **4,511** | **3,638** | **4,090** | **3,593** | **7** | **1,419** | **17,258** |
| Revisions of previous estimates | 59 | 10 | 72 | 381 | 1 | 63 | 586 |
| Extensions, discoveries and other | 92 | 50 | 142 | – | – | – | 284 |
| Acquisitions of minerals in place | – | – | – | – | – | 216 | 216 |
| Sales of minerals in place | – | – | (2) | (3) | – | – | (5) |
| Production for the year | (227) | (401) | (410) | (484) | (1) | (123) | (1,646) |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **4,435** | **3,297** | **3,892** | **3,487** | **7** | **1,575** | **16,693** |
| Revisions of previous estimates | 235 | 582 | 27 | 691 | (2) | 46 | 1,579 |
| Extensions, discoveries and other | 69 | 106 | 37 | 60 | – | 499 | 771 |
| Acquisitions of minerals in place | – | – | – | – | – | 156 | 156 |
| Sales of minerals in place | (8) | – | – | – | – | – | (8) |
| Production for the year | (219) | (396) | (418) | (432) | (<1) | (126) | (1,591) |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **4,512** | **3,589** | **3,538** | **3,806** | **5** | **2,150** | **17,600** |
| Revisions of previous estimates | (123) | 77 | 74 | 234 | | 175 | 437 |
| Extensions, discoveries and other | 1 | 542 | 91 | 8 | | 76 | 718 |
| Acquisitions of minerals in place | – | 43 | – | – | | 43 | 86 |
| Sales of minerals in place | (9) | (129) | – | (24) | | – | (162) |
| Production for the year | (188) | (383) | (350) | (461) | | (143) | (1,525) |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **4,193** | **3,739** | **3,353** | **3,568** | | **2,301** | **17,154** |
| **Minority interest in proved developed and undeveloped reserves as of** | | | | | | | |
| December 31, 2020 – Brent at 41.32$/b | 25 | – | – | – | – | – | 25 |
| December 31, 2021 – Brent at 69.23$/b | 33 | – | – | – | – | – | 33 |
| **DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **27** | **–** | **–** | **–** | | **–** | **27** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

| Proved developed and undeveloped reserves *(in billion cubic feet)* | Equity affiliates | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total | *Total excl. Novatek[b]* |
| **BALANCE AS OF DECEMBER 31, 2019 – BRENT AT 62.74$/b** | **203** | **37** | **–** | **–** | **14,299** | **4,218** | **18,757** | ***9,798*** |
| Revisions of previous estimates | 186 | (16) | – | – | 202 | 3 | 375 | *267* |
| Extensions, discoveries and other | – | – | – | – | 401 | – | 401 | *–* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | *–* |
| Sales of minerals in place | – | – | – | – | – | – | – | *–* |
| Production for the year | (35) | – | – | – | (788) | (183) | (1,006) | *(502)* |
| **BALANCE AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | **354** | **21** | **–** | **–** | **14,114** | **4,038** | **18,527** | ***9,563*** |
| Revisions of previous estimates | (9) | <1 | – | – | (2,473) | 53 | (2,429) | *(1,139)* |
| Extensions, discoveries and other | – | – | – | – | 810 | – | 810 | *34* |
| Acquisitions of minerals in place | – | – | – | – | – | – | – | *–* |
| Sales of minerals in place | – | (21) | – | – | – | – | (21) | *(21)* |
| Production for the year | (29) | (<1) | – | – | (828) | (180) | (1,037) | *(536)* |
| **BALANCE AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | **316** | **–** | **–** | **–** | **11,623** | **3,911** | **15,850** | ***7,901*** |
| Revisions of previous estimates | 25 | – | – | (7,403) | | 7 | (7,371) | *43* |
| Extensions, discoveries and other | 10 | – | – | – | | – | 10 | *10* |
| Acquisitions of minerals in place | – | – | – | – | | – | – | *–* |
| Sales of minerals in place | – | – | – | (608) | | – | (608) | *(608)* |
| Production for the year | (25) | – | – | (790) | | (127) | (942) | *(407)* |
| **BALANCE AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | **326** | **–** | **–** | **2,822** | | **3,791** | **6,939** | ***6,939*** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

| Proved developed and undeveloped reserves *(in billion cubic feet)* | Consolidated subsidiaries and equity affiliates | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total | *Total excl. Novatek[b]* |
| **AS OF DECEMBER 31, 2020 – BRENT AT 41.32$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **4,789** | **3,319** | **3,891** | **3,487** | **14,121** | **5,613** | **35,220** | ***26,256*** |
| Consolidated subsidiaries | 4,435 | 3,298 | 3,891 | 3,487 | 7 | 1,575 | 16,693 | *16,693* |
| Equity affiliates | 354 | 21 | – | – | 14,114 | 4,038 | 18,527 | *9,563* |
| **Proved developed reserves** | **1,470** | **2,915** | **2,731** | **2,083** | **6,864** | **4,862** | **20,925** | ***16,179*** |
| Consolidated subsidiaries | 1,429 | 2,908 | 2,731 | 2,083 | 5 | 1,224 | 10,380 | *10,380* |
| Equity affiliates | 41 | 7 | – | – | 6,859 | 3,638 | 10,545 | *5,799* |
| **Proved undeveloped reserves** | **3,319** | **404** | **1,160** | **1,404** | **7,257** | **751** | **14,295** | ***10,077*** |
| Consolidated subsidiaries | 3,006 | 390 | 1,160 | 1,404 | 2 | 351 | 6,313 | *6,313* |
| Equity affiliates | 313 | 14 | – | – | 7,255 | 400 | 7,982 | *3,764* |
| **AS OF DECEMBER 31, 2021 – BRENT AT 69.23$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **4,828** | **3,589** | **3,538** | **3,806** | **11,628** | **6,061** | **33,450** | ***25,501*** |
| Consolidated subsidiaries | 4,512 | 3,589 | 3,538 | 3,806 | 5 | 2,150 | 17,600 | *17,600* |
| Equity affiliates | 316 | – | – | – | 11,623 | 2,911 | 15,850 | *7,901* |
| **Proved developed reserves** | **1,366** | **2,833** | **2,517** | **2,523** | **7,272** | **4,682** | **21,193** | ***16,141*** |
| Consolidated subsidiaries | 1,349 | 2,833 | 2,517 | 2,523 | 4 | 1,150 | 10,376 | *10,376* |
| Equity affiliates | 17 | – | – | – | 7,268 | 3,532 | 10,817 | *5,765* |
| **Proved undeveloped reserves** | **3,462** | **756** | **1,021** | **1,283** | **4,356** | **1,379** | **12,257** | ***9,360*** |
| Consolidated subsidiaries | 3,163 | 756 | 1,021 | 1,283 | 1 | 1,000 | 7,224 | *7,224* |
| Equity affiliates | 299 | – | – | – | 4,355 | 379 | 5,033 | *2,136* |
| **AS OF DECEMBER 31, 2022 – BRENT AT 101.24$/b** | | | | | | | | |
| **Proved developed and undeveloped reserves** | **4,519** | **3,739** | **3,353** | **6,390** | | **6,092** | **24,093** | ***24,093*** |
| Consolidated subsidiaries | 4,193 | 3,739 | 3,353 | 3,568 | | 2,301 | 17,154 | *17,154* |
| Equity affiliates | 326 | – | – | 2,822 | | 3,791 | 6,939 | *6,939* |
| **Proved developed reserves** | **1,281** | **2,651** | **2,339** | **3,985** | | **4,704** | **14,960** | ***14,960*** |
| Consolidated subsidiaries | 1,259 | 2,651 | 2,339 | 2,243 | | 1,206 | 9,698 | *9,698* |
| Equity affiliates | 22 | – | – | 1,742 | | 3,498 | 5,262 | *5,262* |
| **Proved undeveloped reserves** | **3,238** | **1,088** | **1,014** | **2,405** | | **1,388** | **9,133** | ***9,133*** |
| Consolidated subsidiaries | 2,934 | 1,088 | 1,014 | 1,325 | | 1,095 | 7,456 | *7,456* |
| Equity affiliates | 304 | – | – | 1,080 | | 293 | 1,677 | *1,677* |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Given the material nature of the deregistration in 2022 of the reserves relating to the Company's share in Novatek, this column displays, for information, the Company's proven reserves in 2020 and 2021, excluding Novatek.

## 9.1.5 Results of operations for oil and gas producing activities

The following tables do not include revenues and expenses related to oil and gas transportation activities and LNG liquefaction and transportation.

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| (M$) | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **2020** | | | | | | | |
| Revenues Non-Company sales | 677 | 708 | 1,805 | 608 | – | 981 | 4,779 |
| TotalEnergies sales | 5,540 | 1,068 | 935 | 3,268 | 24 | 4,229 | 15,064 |
| **Total Revenues** | **6,217** | **1,776** | **2,740** | **3,876** | **24** | **5,210** | **19,843** |
| Production costs | (1,097) | (774) | (373) | (1,185) | (11) | (624) | (4,064) |
| Exploration expenses | (159) | (305) | (56) | (157) | (1) | (53) | (731) |
| Depreciation, depletion and amortization and valuation allowances | (4,565) | (7,950) | (2,135) | (1,933) | (51) | (697) | (17,331) |
| Other expenses[(b)] | (614) | (339) | (133) | (357) | (8) | (2,778) | (4,229) |
| **Pre-tax income from producing activities[(c)]** | **(218)** | **(7,592)** | **43** | **244** | **(47)** | **1,058** | **(6,512)** |
| Income tax | 270 | 384 | (111) | (144) | 2 | (269) | 132 |
| **Results of oil and gas producing activities[(c)]** | **52** | **(7,208)** | **(68)** | **100** | **(45)** | **789** | **(6,380)** |

(b) Including production taxes and accretion expense as provided by IAS 37 ($548 million in 2020).
(c) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $7,911 million before tax and $7,450 million after tax, related to asset impairments.

| **2021** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Revenues Non-Company sales | 809 | 896 | 2,089 | 1,368 | – | 1,676 | 6,838 |
| TotalEnergies sales | 8,881 | 3,133 | 1,834 | 9,420 | 53 | 7,995 | 31,316 |
| **Total Revenues** | **9,690** | **4,029** | **3,923** | **10,788** | **53** | **9,671** | **38,154** |
| Production costs | (1,076) | (856) | (353) | (1,156) | (11) | (620) | (4,072) |
| Exploration expenses | (170) | (250) | (128) | (161) | (1) | (30) | (740) |
| Depreciation, depletion and amortization and valuation allowances | (3,457) | (1,533) | (1,309) | (2,371) | (21) | (771) | (9,462) |
| Other expenses[(b)] | (722) | (494) | (204) | (370) | (14) | (6,076) | (7,880) |
| **Pre-tax income from producing activities[(c)]** | **4,265** | **896** | **1,929** | **6,730** | **6** | **2,174** | **16,000** |
| Income tax | (1,537) | (183) | (822) | (3,953) | (14) | (795) | (7,304) |
| **Results of oil and gas producing activities[(c)]** | **2,728** | **713** | **1,107** | **2,777** | **(8)** | **1,379** | **8,696** |

(b) Including production taxes and accretion expense as provided by IAS 37 ($434 million in 2021).
(c) Including adjustment items applicable to ASC 932 perimeter, amounting to a net charge of $771 million before tax and $763 million after tax, related to asset impairments.

| **2022** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Revenues Non-Company sales | 1,407 | 980 | 2,059 | 2,650 | | 2,110 | 9,207 |
| TotalEnergies sales | 11,257 | 6,512 | 2,052 | 18,077 | | 12,755 | 50,653 |
| **Total Revenues** | **12,664** | **7,492** | **4,111** | **20,727** | | **14,865** | **59,859** |
| Production costs | (1,037) | (1,037) | (425) | (1,130) | | (638) | (4,267) |
| Exploration expenses | (185) | (900) | (27) | (130) | | (56) | (1,299) |
| Depreciation, depletion and amortization and valuation allowances | (3,459) | (823) | (1,015) | (1,875) | | (1,055) | (8,227) |
| Other expenses[(b)] | (1,007) | (919) | (262) | (466) | | (10,506) | (13,160) |
| **Pre-tax income from producing activities[(c)]** | **6,976** | **3,813** | **2,382** | **17,126** | | **2,609** | **32,907** |
| Income tax | (3,278) | (910) | (837) | (12,288) | | (952) | (18,265) |
| **Results of oil and gas producing activities[(c)]** | **3,698** | **2,903** | **1,545** | **4,838** | | **1,657** | **14,641** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including production taxes ($12,740 million and accretion expense as provided by IAS 37 ($420 million in 2022).
(c) Including adjustment items applicable to ASC932 perimeter, amounting to a net charge of $631 million before tax, related to production cost ($84 million), net asset impairment reversal ($178 million) and exploration charges ($725 million). Adjustment after tax is a charge of $1,379 million, including non-recurrent tax charge ($725 million).

| (M$) | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **2020** | | | | | | | |
| Revenues Non-Company sales | – | – | – | – | 1,608 | 1,505 | 3,113 |
| TotalEnergies sales | – | – | – | – | – | 607 | 607 |
| **Total Revenues** | **–** | **–** | **–** | **–** | **1,608** | **2,112** | **3,720** |
| Production costs | – | (6) | – | – | (179) | (251) | (436) |
| Exploration expenses | – | – | – | – | (29) | – | (29) |
| Depreciation, depletion and amortization and valuation allowances | – | (4) | – | – | (222) | (246) | (472) |
| Other expenses | (20) | 10 | – | – | (186) | (970) | (1,166) |
| **Pre-tax income from producing activities** | **(20)** | **–** | **–** | **–** | **992** | **645** | **1,617** |
| Income tax | – | – | – | – | (149) | (241) | (390) |
| **Results of oil and gas producing activities** | **(20)** | **–** | **–** | **–** | **843** | **404** | **1,227** |
| **2021** | | | | | | | |
| Revenues Non-Company sales | 278 | – | – | – | 3,702 | 3,236 | 7,216 |
| TotalEnergies sales | 35 | – | – | – | 23 | 1,061 | 1,119 |
| **Total Revenues** | **313** | **–** | **–** | **–** | **3,725** | **4,297** | **8,335** |
| Production costs | – | (7) | – | – | (189) | (268) | (464) |
| Exploration expenses | – | – | – | – | (16) | – | (16) |
| Depreciation, depletion and amortization and valuation allowances | – | (1,013) | – | – | (276) | (258) | (1,547) |
| Other expenses | (139) | 5 | – | – | (301) | (2,295) | (2,730) |
| **Pre-tax income from producing activities** | **174** | **(1,015)** | **–** | **–** | **2,943** | **1,476** | **3,578** |
| Income tax | – | (10) | – | – | (446) | (573) | (1,029) |
| **Results of oil and gas producing activities** | **174** | **(1,025)** | **–** | **–** | **2,497** | **903** | **2,549** |
| **2022** | | | | | | | |
| Revenues Non-Company sales | 725 | – | – | 4,844 | | 4,249 | 9,817 |
| TotalEnergies sales | (36) | – | – | 512 | | 1,981 | 2,457 |
| **Total Revenues** | **688** | **–** | **–** | **5,356** | | **6,230** | **12,274** |
| Production costs | (6) | – | – | (311) | | (277) | (595) |
| Exploration expenses | – | – | – | (47) | | – | (47) |
| Depreciation, depletion and amortization and valuation allowances | – | – | – | (6,546) | | (334) | (6,881) |
| Other expenses | 6 | – | – | (399) | | (3,620) | (4,013) |
| **Pre-tax income from producing activities** | **688** | **–** | **–** | **(1,948)** | | **1,998** | **739** |
| Income tax | – | – | – | (866) | | (717) | (1,583) |
| **Results of oil and gas producing activities** | **688** | **–** | **–** | **(2,814)** | | **1,282** | **(844)** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

## 9.1.6 Cost incurred

The following tables set forth the costs incurred in the Company's oil and gas property acquisition, exploration and development activities, including both capitalized and expensed amounts. They do not include costs incurred related to oil and gas transportation and LNG liquefaction and transportation activities.

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| (M$) | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **2020[b]** | | | | | | | |
| Proved property acquisition | 3 | – | 15 | – | – | 3 | 21 |
| Unproved property acquisition | 1,016 | 15 | – | – | – | 13 | 1,044 |
| Exploration costs | 312 | 485 | 58 | 182 | 1 | 118 | 1,156 |
| Development costs[c] | 1,215 | 1,042 | 369 | 2,279 | 31 | 1,024 | 5,960 |
| **TOTAL COST INCURRED** | **2,546** | **1,542** | **442** | **2,461** | **32** | **1,158** | **8,181** |
| **2021** | | | | | | | |
| Proved property acquisition | 94 | 39 | 10 | – | – | 50 | 193 |
| Unproved property acquisition | 142 | 124 | – | – | – | 66 | 332 |
| Exploration costs | 302 | 523 | 19 | 215 | 1 | 62 | 1,122 |
| Development costs[c] | 1,508 | 1,591 | 603 | 1,836 | 30 | 991 | 6,559 |
| **TOTAL COST INCURRED** | **2,046** | **2,277** | **632** | **2,051** | **31** | **1,169** | **8,206** |
| **2022** | | | | | | | |
| Proved property acquisition[d] | 96 | 4,227 | 6 | 5 | | 102 | 4,436 |
| Unproved property acquisition | 3 | 438 | 4 | – | | 48 | 493 |
| Exploration costs | 158 | 493 | 44 | 172 | | 154 | 1,021 |
| Development costs[c] | 1,609 | 1,671 | 719 | 979 | | 1,085 | 6,063 |
| **TOTAL COST INCURRED** | **1,866** | **6,829** | **773** | **1,156** | | **1,389** | **12,013** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including cost incurred relating to acquisitions of Anadarko in South Africa, Blocks 20/11 and 21/09 in Angola and Tulow's interests in Uganda.
(c) Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.
(d) Including cost incurred relating to acquisition of Atapu and Sépia assets in Brazil.

| | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| (M$) | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **2020** | | | | | | | |
| Proved property acquisition | – | – | – | – | 120 | – | 120 |
| Unproved property acquisition | – | – | – | – | – | – | – |
| Exploration costs | – | – | – | – | – | 5 | 5 |
| Development costs[b] | – | – | – | – | 455 | 479 | 934 |
| **TOTAL COST INCURRED** | **–** | **–** | **–** | **–** | **575** | **484** | **1,059** |
| **2021** | | | | | | | |
| Proved property acquisition | – | – | – | – | – | – | – |
| Unproved property acquisition | – | – | – | – | – | – | – |
| Exploration costs | – | – | – | – | – | 6 | 6 |
| Development costs[b] | – | 1 | – | – | 362 | 523 | 886 |
| **TOTAL COST INCURRED** | **–** | **1** | **–** | **–** | **362** | **529** | **892** |
| **2022** | | | | | | | |
| Proved property acquisition | – | – | – | – | | – | – |
| Unproved property acquisition | – | – | – | – | | – | – |
| Exploration costs | – | – | – | – | | 2 | 2 |
| Development costs[b] | – | – | – | 693[c] | | 635 | 1,328 |
| **TOTAL COST INCURRED** | **–** | **–** | **–** | **693** | | **637** | **1,330** |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.
(c) Including mainly the Novatek incurred costs.

## 9.1.7 Capitalized costs related to oil and gas producing activities

Capitalized costs represent the amount of capitalized proved and unproved property costs, including support equipment and facilities, along with the related accumulated depreciation, depletion and amortization.

The following tables do not include capitalized costs related to oil and gas transportation and LNG liquefaction and transportation activities.

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| (M$) | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **As of December 31, 2020** | | | | | | | |
| Proved properties | 84,556 | 31,235 | 37,840 | 53,752 | 700 | 17,913 | 225,996 |
| Unproved properties | 10,253 | 8,758 | 1,760 | 2,594 | 4 | 2,762 | 26,131 |
| **TOTAL CAPITALIZED COSTS** | **94,809** | **39,993** | **39,600** | **56,346** | **704** | **20,675** | **252,127** |
| Accumulated depreciation, depletion and amortization | (60,270) | (23,525) | (22,050) | (38,653) | (602) | (11,260) | (156,360) |
| **NET CAPITALIZED COSTS** | **34,539** | **16,468** | **17,550** | **17,693** | **102** | **9,415** | **95,767** |
| **As of December 31, 2021** | | | | | | | |
| Proved properties | 86,489 | 32,124 | 38,289 | 54,294 | 730 | 18,618 | 230,544 |
| Unproved properties | 8,248 | 6,523 | 1,699 | 2,321 | 4 | 2,641 | 21,436 |
| **TOTAL CAPITALIZED COSTS** | **94,737** | **38,647** | **39,988** | **56,615** | **734** | **21,259** | **251,980** |
| Accumulated depreciation, depletion and amortization | (62,223) | (21,686) | (22,249) | (39,805) | (623) | (11,645) | (158,231) |
| **NET CAPITALIZED COSTS** | **32,514** | **16,961** | **17,739** | **16,810** | **111** | **9,614** | **93,749** |
| **As of December 31, 2022** | | | | | | | |
| Proved properties | 84,613 | 38,635 | 38,051 | 48,414 | | 18,646 | 228,359 |
| Unproved properties | 8,240 | 5,673 | 1,761 | 1,820 | | 2,484 | 19,978 |
| **TOTAL CAPITALIZED COSTS** | **92,853** | **44,308** | **39,812** | **50,234** | | **21,130** | **248,337** |
| Accumulated depreciation, depletion and amortization | (61,898) | (21,433) | (22,366) | (35,464) | | (10,882) | (152,043) |
| **NET CAPITALIZED COSTS** | **30,955** | **22,875** | **17,446** | **14,770** | | **10,248** | **96,294** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

| | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| (M$) | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **As of December 31, 2020** | | | | | | | |
| Proved properties | – | 1,699 | – | – | 8,749 | 4,282 | 14,730 |
| Unproved properties | – | – | – | – | 62 | – | 62 |
| **TOTAL CAPITALIZED COSTS** | **–** | **1,699** | **–** | **–** | **8,811** | **4,282** | **14,792** |
| Accumulated depreciation, depletion and amortization | – | (686) | – | – | (2,034) | (2,249) | (4,969) |
| **NET CAPITALIZED COSTS** | **–** | **1,013** | **–** | **–** | **6,777** | **2,033** | **9,823** |
| **As of December 31, 2021** | | | | | | | |
| Proved properties | – | – | – | – | 6,979 | 4,892 | 11,871 |
| Unproved properties | – | – | – | – | 2,142 | – | 2,142 |
| **TOTAL CAPITALIZED COSTS** | **–** | **–** | **–** | **–** | **9,121** | **4,892** | **14,013** |
| Accumulated depreciation, depletion and amortization | – | – | – | – | (2,381) | (2,398) | (4,779) |
| **NET CAPITALIZED COSTS** | **–** | **–** | **–** | **–** | **6,740** | **2,494** | **9,234** |
| **As of December 31, 2022** | | | | | | | |
| Proved properties | – | – | – | 1,445 | | 5,505 | 6,949 |
| Unproved properties | – | – | – | – | | – | – |
| **TOTAL CAPITALIZED COSTS** | **–** | **–** | **–** | **1,445** | | **5,505** | **6,949** |
| Accumulated depreciation, depletion and amortization | – | – | – | (471) | | (2,742) | (3,213) |
| **NET CAPITALIZED COSTS** | **–** | **–** | **–** | **973** | | **2,763** | **3,737** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

## 9.1.8 Standardized measure of discounted future net cash flows (excluding transportation)

The standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities was developed as follows:

- estimates of proved reserves and the corresponding production profiles are based on existing technical and economic conditions;
- the estimated future cash flows are determined based on prices used in estimating the Company's proved oil and gas reserves;
- the future cash flows incorporate estimated production costs (including production taxes), future development costs and asset retirement costs. All cost estimates are based on year-end technical and economic conditions;
- future income taxes are computed by applying the year-end statutory tax rate to future net cash flows after consideration of permanent differences and future income tax credits; and
- future net cash flows are discounted at a standard discount rate of 10%.

These principles applied are those required by ASC 932 and do not reflect the expectations of real revenues from these reserves, nor their present value; hence, they do not constitute criteria for investment decisions. An estimate of the fair value of reserves should also take into account, among other things, the recovery of reserves not presently classified as proved, anticipated future changes in prices and costs and a discount factor more representative of the time value of money and the risks inherent in reserves estimates.

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| *(M$)* | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **As of December 31, 2020** | | | | | | | |
| Future cash inflows | 39,525 | 32,649 | 28,961 | 27,290 | 341 | 85,550 | 214,316 |
| Future production costs | (13,333) | (14,028) | (7,303) | (10,264) | (208) | (65,377) | (110,513) |
| Future development costs | (13,150) | (8,873) | (4,268) | (11,924) | (110) | (7,948) | (46,273) |
| Future income taxes | (4,682) | (859) | (985) | (2,912) | (16) | (2,741) | (12,195) |
| **Future net cash flows, after income taxes** | **8,360** | **8,889** | **16,405** | **2,190** | **7** | **9,484** | **45,335** |
| Discount at 10% | (4,124) | (4,885) | (7,690) | (506) | 7 | (3,705) | (20,903) |
| **Standardized measure of discounted future net cash flows** | **4,236** | **4,004** | **8,715** | **1,684** | **14** | **5,779** | **24,432** |
| **As of December 31, 2021** | | | | | | | |
| Future cash inflows | 88,082 | 58,716 | 47,667 | 81,227 | 400 | 132,166 | 408,258 |
| Future production costs | (24,040) | (20,512) | (8,397) | (16,328) | (202) | (103,307) | (172,786) |
| Future development costs | (15,412) | (9,542) | (4,118) | (14,541) | (86) | (9,191) | (52,890) |
| Future income taxes | (14,474) | (3,415) | (5,520) | (30,532) | (50) | (5,116) | (59,107) |
| **Future net cash flows, after income taxes** | **34,156** | **25,247** | **29,632** | **19,826** | **62** | **14,552** | **123,475** |
| Discount at 10% | (16,610) | (12,913) | (14,259) | (6,941) | (10) | (6,331) | (57,064) |
| **Standardized measure of discounted future net cash flows** | **17,546** | **12,334** | **15,373** | **12,885** | **52** | **8,221** | **66,411** |
| **As of December 31, 2022** | | | | | | | |
| Future cash inflows | 125,701 | 117,978 | 61,701 | 165,523 | | 181,680 | 652,583 |
| Future production costs | (27,589) | (34,944) | (9,358) | (20,919) | | (148,030) | (240,840) |
| Future development costs | (15,040) | (12,470) | (4,024) | (13,695) | | (8,923) | (54,153) |
| Future income taxes | (30,512) | (12,121) | (9,502) | (92,432) | | (7,562) | (152,130) |
| **Future net cash flows, after income taxes** | **52,560** | **58,442** | **38,817** | **38,476** | | **17,165** | **205,461** |
| Discount at 10% | (24,939) | (28,526) | (19,929) | (15,412) | | (7,255) | (96,061) |
| **Standardized measure of discounted future net cash flows** | **27,621** | **29,916** | **18,887** | **23,064** | | **9,911** | **109,399** |
| **Minority interests in future net cash flows as of** | | | | | | | |
| December 31, 2020 | 61 | – | – | – | – | – | 61 |
| December 31, 2021 | 740 | – | – | – | – | – | 740 |
| **DECEMBER 31, 2022** | **1,148** | **–** | **–** | **–** | | **–** | **1,148** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

| (M$) | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **As of December 31, 2020** | | | | | | | |
| Future cash inflows | 45 | 1,915 | – | – | 29,006 | 23,121 | 54,087 |
| Future production costs | (38) | (964) | – | – | (8,505) | (15,457) | (24,964) |
| Future development costs | – | (208) | – | – | (1,881) | (3,321) | (5,410) |
| Future income taxes | – | (657) | – | – | (1,875) | (571) | (3,103) |
| **Future net cash flows, after income taxes** | **7** | **86** | **–** | **–** | **16,745** | **3,772** | **20,610** |
| Discount at 10% | 13 | (119) | – | – | (9,752) | (2,160) | (12,018) |
| **Standardized measure of discounted future net cash flows** | **20** | **(33)** | **–** | **–** | **6,993** | **1,612** | **8,592** |
| **As of December 31, 2021** | | | | | | | |
| Future cash inflows | 2,793 | – | – | – | 49,015 | 49,049 | 100,857 |
| Future production costs | (114) | – | – | – | (13,769) | (29,100) | (42,983) |
| Future development costs | (1) | – | – | – | (984) | (3,626) | (4,611) |
| Future income taxes | (454) | – | – | – | (4,836) | (3,263) | (8,553) |
| **Future net cash flows, after income taxes** | **2,224** | **–** | **–** | **–** | **29,426** | **13,060** | **44,710** |
| Discount at 10% | (1,044) | – | – | – | (15,626) | (7,193) | (23,863) |
| **Standardized measure of discounted future net cash flows** | **1,180** | **–** | **–** | **–** | **13,800** | **5,867** | **20,847** |
| **As of December 31, 2022** | | | | | | | |
| Future cash inflows | 9,596 | – | – | 31,691 | | 91,597 | 132,884 |
| Future production costs | (217) | – | – | (3,716) | | (63,146) | (67,079) |
| Future development costs | – | – | – | (131) | | (3,370) | (3,501) |
| Future income taxes | (2,090) | – | – | (7,368) | | (4,312) | (13,770) |
| **Future net cash flows, after income taxes** | **7,289** | **–** | **–** | **20,475** | | **20,770** | **48,534** |
| Discount at 10% | (3,289) | – | – | (10,507) | | (11,447) | (25,243) |
| **Standardized measure of discounted future net cash flows** | **3,999** | **–** | **–** | **9,969** | | **9,323** | **23,291** |

(a) As of January 1, 2022, the Europe column includes the Russia data.

## 9.1.9 Changes in the standardized measure of discounted future net cash flows

| Consolidated subsidiaries *(M$)* | 2020 | 2021 | 2022 |
|---|---|---|---|
| Discounted future net cash flows at January 1 | 50,589 | 24,432 | **66,411** |
| Sales and transfers, net of production costs | (12,095) | (26,636) | (42,852) |
| Net change in sales and transfer prices and in production costs and other expenses | (55,732) | 86,421 | 107,114 |
| Extensions, discoveries and improved recovery | 335 | 5,128 | 5,367 |
| Changes in estimated future development costs | (1,000) | (2,057) | (2,986) |
| Previously estimated development costs incurred during the year | 7,419 | 6,367 | 7,656 |
| Revisions of previous quantity estimates | 13,635 | (5,189) | 5,516 |
| Accretion of 10% discount | 5,059 | 2,443 | 6,637 |
| Net change in income taxes | 15,919 | (24,718) | (49,265) |
| Purchases of reserves in place | 329 | 218 | 6,248 |
| Sales of reserves in place | (26) | 2 | (448) |
| **END OF YEAR** | **24,432** | **66,411** | **109,399** |

| Equity affiliates *(M$)* | 2020 | 2021 | 2022 |
|---|---|---|---|
| Discounted future net cash flows at January 1 | 15,872 | 8,592 | 20,847 |
| Sales and transfers, net of production costs | (2,133) | (5,154) | (7,676) |
| Net change in sales and transfer prices and in production costs and other expenses | (12,705) | 18,084 | 17,470 |
| Extensions, discoveries and improved recovery | 234 | 1,365 | 172 |
| Changes in estimated future development costs | (172) | (525) | (209) |
| Previously estimated development costs incurred during the year | 851 | 880 | 1,016 |
| Revisions of previous quantity estimates | (1,868) | (574) | (7,675) |
| Accretion of 10% discount | 1,587 | 859 | 2,084 |
| Net change in income taxes | 6,926 | (2,343) | (2,318) |
| Purchases of reserves in place | – | – | – |
| Sales of reserves in place | – | (337) | (420) |
| **END OF YEAR** | **8,592** | **20,847** | **23,291** |

# 9.2 Other information

## 9.2.1 Natural Gas Production available for sale

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **2020** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 185 | 389 | 396 | 453 | – | 107 | 1,530 |
| **2021** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 180 | 386 | 403 | 406 | – | 110 | 1,485 |
| **2022** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 150 | 370 | 339 | 432 | | 127 | 1,418 |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

| | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **2020** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 30 | – | – | – | 735 | 174 | 939 |
| **2021** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 25 | – | – | – | 768 | 171 | 964 |
| **2022** | | | | | | | |
| Natural Gas production available for sale[(b)] *(Bcf)* | 22 | – | – | 730 | | 118 | 870 |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

## 9.2.2 Production prices

| | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **2020[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | 36.44 | 31.33 | 29.66 | 33.76 | 33.59 | 39.14 | 35.73 |
| Bitumen *($/b)* | – | 11.29 | – | – | – | – | 11.29 |
| Natural Gas *($/kcf)* | 1.28 | 1.76 | 4.49 | 2.18 | – | 2.10 | 2.54 |
| **2021[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | 65.98 | 54.47 | 56.50 | 63.63 | 59.18 | 66.73 | 64.07 |
| Bitumen *($/b)* | – | 40.52 | – | – | – | – | 40.52 |
| Natural Gas *($/kcf)* | 1.60 | 2.56 | 4.52 | 13.87 | – | 2.45 | 6.08 |
| **2022[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | 95.72 | 80.58 | 71.38 | 89.90 | | 95.10 | 90.99 |
| Bitumen *($/b)* | – | 60.66 | – | – | | – | 60.66 |
| Natural Gas *($/kcf)* | 2.60 | 3.32 | 5.45 | 31.27 | | 3.94 | 12.61 |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes used for calculation of the average sales prices are the ones sold from the Company's own production.
(c) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Company's total liquids production in each of the years 2020, 2021 and 2022.

| | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[(a)] | Russia | Middle East and North Africa | Total |
| **2020[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | – | – | – | – | 21.91 | 39.95 | 32.84 |
| Bitumen *($/b)* | – | – | – | – | – | – | - |
| Natural Gas *($/kcf)* | – | – | – | – | 1.80 | 3.05 | 1.91 |
| **2021[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | – | – | – | – | 32.17 | 67.43 | 54.89 |
| Bitumen *($/b)* | – | – | – | – | – | – | – |
| Natural Gas *($/kcf)* | 1.83 | – | – | – | 4.41 | 7.94 | 4.51 |
| **2022[(b)]** | | | | | | | |
| Oil *($/b)*[(c)] | – | – | – | 46.12 | | 90.21 | 75.98 |
| Bitumen *($/b)* | – | – | – | – | | – | – |
| Natural Gas *($/kcf)* | 34.75 | – | – | 7.91 | | 13.73 | 9.49 |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes used for calculation of the average sales prices are the ones sold from the Company's own production.
(c) The reported price represents an average aggregate price of prices for crude oil, condensates and NGL. The table does not include separate figures for NGL production prices because the production of NGL represented less than 7.5% of the Company's total liquids production in each of the years 2020, 2021 and 2022.

## 9.2.3 Production costs

| *(in $/boe)* | Consolidated subsidiaries | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **2020[b]** | | | | | | | |
| Oil, bitumen and natural gas | 5.14 | 6.10 | 3.46 | 6.90 | 6.91 | 4.27 | 5.29 |
| Of which bitumen | – | 15.41 | – | – | – | – | 15.41 |
| **2021[b]** | | | | | | | |
| Oil, bitumen and natural gas | 6.00 | 6.42 | 3.23 | 7.35 | 7.47 | 3.86 | 5.49 |
| Of which bitumen | – | 15.93 | – | – | – | – | 15.93 |
| **2022[b]** | | | | | | | |
| Oil, bitumen and natural gas | 6.50 | 6.87 | 4.54 | 7.01 | | 3.65 | 5.76 |
| Of which bitumen | – | 16.58 | – | – | | – | 16.58 |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

| *(in $/boe)* | Equity affiliates | | | | | | |
|---|---|---|---|---|---|---|---|
| | Africa (excl. North Africa) | Americas | Asia-Pacific | Europe[a] | Russia | Middle East and North Africa | Total |
| **2020[b]** | | | | | | | |
| Oil, bitumen and natural gas | – | 25.75 | – | – | 1.10 | 3.26 | 1.76 |
| Of which bitumen | – | – | – | – | – | – | – |
| **2021[b]** | | | | | | | |
| Oil, bitumen and natural gas | – | 12.05 | – | – | 1.12 | 3.41 | 1.83 |
| Of which bitumen | – | – | – | – | – | – | – |
| **2022[b]** | | | | | | | |
| Oil, bitumen and natural gas | 1.13 | – | – | 1.95 | | 3.90 | 2.52 |
| Of which bitumen | – | – | – | – | | – | – |

(a) As of January 1, 2022, the Europe column includes the Russia data.
(b) The volumes of oil used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.

# 9.3 Report on the payments made to governments (Article L. 22-10-37 of the French Commercial Code)

Article L. 22-10-37 of the French Commercial Code[1] requires large undertakings and public-interest entities that are active in the extractive industry or logging of primary forests to disclose in an annual report payments of at least 100,000 euros made to governments in the countries in which they operate.

The consolidated report of TotalEnergies is presented pursuant to the aforementioned provisions. This report covers the aforementioned payments made in 2022 by the Company's Extractive Companies as defined below, for the benefit of each government of states or territories in which TotalEnergies carries out its activities, by detailing the total amount of payments made, the total amount by payment type, the total amount by project and the total amount by payment type for each project. When payments were made in kind, valuated hydrocarbons' volumes are specified.

This report has been approved by the Board of Directors of TotalEnergies SE.

## DEFINITIONS

The meaning of certain terms used in this report are set forth below:

**Extractive Companies**: TotalEnergies SE and any company or undertaking fully consolidated by TotalEnergies SE, the activities of which consist, in whole or in part, of exploration, prospection, discovery, development and extraction of minerals, crude oil and natural gas, among others.

**Payment**: a single payment or multiple interconnected payments of an amount equal to, or in excess of, 100,000 euros (or its equivalent) paid, whether in money or in kind, for extractive activities.

Payment types included in this report are the following:

- **Taxes**:
  - **Income taxes:** corporate income taxes based on taxable profits of Extractive Companies,
  - **Other Taxes:** other taxes and levies (other than Income taxes). Other Taxes include those based on revenues or production of Extractive Companies, and exclude taxes levied on consumption such as added value taxes, customs duties, personal income taxes and sales taxes.
- **Royalties**: percentage of production payable to the owner of mineral rights,
- **License Fees**: license fees, surface or rental fees, and other consideration for licenses and /or concessions that are paid for access to the area where the extractive activities are conducted,
- **License bonuses**: bonuses paid for and in consideration of signature, discovery, production, awards, grants and transfers of extraction rights; bonuses related to the achievement or failure to achieve certain production levels or certain targets, and discovery of additional mineral reserves /deposits,
- **Dividends**: dividends paid to a host government holding an interest in an Extractive Company,
- **Payments for Infrastructure Improvements**: payments for local development, including the improvement of infrastructure, not directly necessary for the conduct of extractive activities but mandatory pursuant to the terms of a production sharing contract or to the terms of a law relating to oil and gas activities,
- **Production entitlement**: host Government's share of production. This payment is generally made in kind.

**Government**: any national, regional or local authority of a country or territory, or any department, agency or undertaking controlled by that authority.

**Project**: operational activities governed by a single contract, license, lease, concession or similar legal agreement and that form the basis for payment liabilities with a Government. If multiple such agreements are substantially interconnected, they shall be considered as a single Project. Payments (such as company income tax when it concerns several projects which cannot be separated in application of the fiscal regulations) unable to be attributed to a Project are disclosed under the item "non-attributable".

## REPORTING PRINCIPLES

This report sets forth all Payments as booked in the Extractive Companies' accounts. They are presented based on the Company's share in each Project, whether the Payments have been made directly by the Extractive Companies of TotalEnergies as operator or indirectly through third-party operating companies.

Production entitlement and Royalties that are mandatorily paid in kind and that are owed to host Governments pursuant to legal or contractual provisions (not booked in the Extractive Companies' accounts pursuant to accounting standards) are reported in proportion of the interest held by the Extractive Company in the Project as of the date on which such Production entitlements and Royalties are deemed to be acquired.

Payments in kind are estimated at fair value.

Fair value corresponds to the contractual price of hydrocarbons used to calculate Production entitlement, market price (if available) or an appropriate benchmark price. These prices might be calculated on an averaged basis over a given period.

(1) Article L. 22-10-37 of the French Commercial Code transposes certain provisions set out in Directive 2013/24/UE of the European Parliament and of the Council of June 26, 2013 (chapter 10).

## 9.3.1 Reporting by country and type of Payment

### 9.3.1.1 PAID IN CASH

| *paid in cash (in thousands of dollars)* | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Europe** | ***9,030,917*** | ***126,383*** | **9,157,300** | **–** | **13,313** | **–** | **–** | **–** | **40,282** | **9,210,895** |
| Bulgaria | – | – | – | – | 211 | – | – | – | – | 211 |
| Denmark | *326,775* | *734* | 327,509 | – | 561 | – | – | – | – | 328,070 |
| France | – | *291* | 291 | – | – | – | – | – | – | 291 |
| Italy | *37,987* | *59,825* | 97,812 | – | 1,492 | – | – | – | – | 99,304 |
| Netherlands | *238,271* | – | 238,271 | – | 623 | – | – | – | – | 238,894 |
| Norway | *5,344,581* | *57,058* | 5,401,639 | – | 4,417 | – | – | – | – | 5,406,056 |
| Russia | *8,139* | *8,475* | 16,614 | – | 85 | – | – | – | 40,282 | 56,981 |
| United Kingdom | *3,075,164* | – | 3,075,164 | – | 5,924 | – | – | – | – | 3,081,088 |
| **Africa** | ***1,591,784*** | ***423,187*** | **2,014,971** | **–** | **91,374** | **78,882** | **81,259** | **49,214** | **–** | **2,315,700** |
| Angola | *759,455* | *116,424* | 875,879 | – | 12,042 | – | – | 1,411 | – | 889,332 |
| Côte d'Ivoire | – | – | – | – | 141 | – | – | – | – | 141 |
| Democratic Republic of the Congo | – | – | – | – | 750 | – | – | – | – | 750 |
| Gabon | – | *91,283* | 91,283 | – | 3,455 | 60,000 | 81,259 | 11,320 | – | 247,317 |
| Kenya | – | – | – | – | 146 | – | – | – | – | 146 |
| Mauritania | – | – | – | – | 1,295 | – | – | – | – | 1,295 |
| Mozambique | – | – | – | – | 1,060 | – | – | – | – | 1,060 |
| Nigeria | *832,399* | *178,030* | 1,010,429 | – | 12,327 | – | – | 35,046 | – | 1,057,802 |
| Republic of the Congo | *(70)* | *37,450* | 37,380 | – | 57,665 | 18,882 | – | 1,437 | – | 115,364 |
| São Tomé and Principe | – | – | – | – | 605 | – | – | – | – | 605 |
| Senegal | – | – | – | – | 273 | – | – | – | – | 273 |
| Uganda | – | – | – | – | 1,615 | – | – | – | – | 1,615 |
| **Middle East and North Africa** | ***37,406*** | ***11,491,019*** | **11,528,425** | **–** | **11,902** | **60,593** | **–** | **15,000** | **–** | **11,615,920** |
| Algeria | – | *344,120* | 344,120 | – | 2,257 | 13,090 | – | – | – | 359,467 |
| Cyprus | – | – | – | – | 965 | – | – | – | – | 965 |
| Egypt | – | – | – | – | 150 | – | – | – | – | 150 |
| Iraq | *4,999* | – | 4,999 | – | – | – | – | – | – | 4,999 |
| Lebanon | – | – | – | – | 106 | – | – | – | – | 106 |
| Libya | – | *2,173,389* | 2,173,389 | – | 132 | 22,500 | – | 15,000 | – | 2,211,021 |
| Oman | – | *557,290* | 557,290 | – | 200 | – | – | – | – | 557,490 |
| Qatar | *32,407* | *26,629* | 59,036 | – | – | 25,003 | – | – | – | 84,039 |
| United Arab Emirates | – | *8,389,591* | 8,389,591 | – | 8,092 | – | – | – | – | 8,397,683 |
| **Americas** | ***333,131*** | ***814,221*** | **1,147,352** | **324,428** | **67,997** | **2,885,087** | **–** | **–** | **–** | **4,424,864** |
| Argentina | *173,361* | *80,245* | 253,606 | – | 5,662 | 5,726 | – | – | – | 264,994 |
| Bolivia | – | *261,816* | 261,816 | – | 1,326 | 937 | – | – | – | 264,079 |
| Brazil | *148,477* | *436,346* | 584,823 | – | 14,729 | 2,878,424 | – | – | – | 3,477,976 |
| Canada | – | – | – | 204,250 | 24,064 | – | – | – | – | 228,314 |
| Mexico | – | *4,489* | 4,489 | – | 19,288 | – | – | – | – | 23,777 |
| United States | *11,293* | *31,325* | 42,618 | 120,178 | 2,928 | – | – | – | – | 165,724 |
| **Asia Pacific** | ***457,505*** | ***154,999*** | **612,504** | **–** | **7,870** | **48,012** | **–** | **3,165** | **99,446** | **770,997** |
| Australia | – | *43,474* | 43,474 | – | 1,861 | – | – | – | – | 45,335 |
| Brunei | *47,171* | *11,783* | 58,954 | – | 7 | – | – | – | 11,735 | 70,696 |
| China | *25,524* | *1,650* | 27,174 | – | – | – | – | – | – | 27,174 |
| Indonesia | *5,887* | – | 5,887 | – | – | – | – | – | – | 5,887 |
| Kazakhstan | *19,921* | *77,915* | 97,836 | – | 67 | 2,304 | – | 3,165 | 25,763 | 129,135 |
| Malaysia | – | – | – | – | 5,009 | – | – | – | – | 5,009 |
| Myanmar | *16,000* | *19,406* | 35,406 | – | – | – | – | – | 61,948 | 97,354 |
| Papua New Guinea | – | – | – | – | 926 | – | – | – | – | 926 |
| Thailand | *343,002* | *771* | 343,773 | – | – | 45,708 | – | – | – | 389,481 |
| **Total** | ***11,450,743*** | ***13,009,809*** | **24,460,552** | **324,428** | **192,456** | **3,072,574** | **81,259** | **67,379** | **139,728** | **28,338,376** |

### 9.3.1.2 PAID IN KIND

| *paid in kind (in kboe)* | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Europe** | – | – | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** |
| **Africa** | ***5,225*** | ***4,075*** | **9,300** | **–** | **1** | **–** | **–** | **–** | **25,362** | **34,663** |
| Angola | – | – | – | – | – | – | – | – | 24,171 | 24,171 |
| Gabon | *481* | – | 481 | – | – | – | – | – | – | 481 |
| Nigeria | *615* | *984* | 1,599 | – | 1 | – | – | – | 1,183 | 2,783 |
| Republic of the Congo | *4,128* | *3,091* | 7,220 | – | – | – | – | – | 9 | 7,228 |
| **Middle East and North Africa** | ***12,310*** | ***2,250*** | **14,560** | **–** | **–** | **–** | **–** | **–** | **47,838** | **62,398** |
| Algeria | *2,778* | *1,441* | 4,219 | – | – | – | – | – | – | 4,219 |
| Iraq | – | *187* | 187 | – | – | – | – | – | – | 187 |
| Libya | *6,238* | *621* | 6,859 | – | – | – | – | – | 16,369 | 23,228 |
| Qatar | *3,294* | – | 3,294 | – | – | – | – | – | 31,469 | 34,763 |
| **Americas** | – | – | **–** | **–** | **–** | **–** | **–** | **–** | **2,676** | **2,676** |
| Bolivia | – | – | – | – | – | – | – | – | 1,252 | 1,252 |
| Brazil | – | – | – | – | – | – | – | – | 1,424 | 1,424 |
| **Asia Pacific** | – | ***651*** | **651** | **–** | **–** | **–** | **–** | **–** | **2,581** | **3,232** |
| China | – | *651* | 651 | – | – | – | – | – | 901 | 1,552 |
| Indonesia | – | – | – | – | – | – | – | – | 145 | 145 |
| Kazakhstan | – | – | – | – | – | – | – | – | 375 | 375 |
| Myanmar | – | – | – | – | – | – | – | – | 1,160 | 1,160 |
| **Total** | ***17,535*** | ***6,976*** | **24,511** | **–** | **1** | **–** | **–** | **–** | **78,457** | **102,969** |

### 9.3.1.3 PAID IN CASH AND IN KIND (INCLUDING VALUATION OF IN-KIND PAYMENTS)

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| *all payments (in thousands of dollars)* | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Europe** | ***9,030,917*** | ***126,383*** | **9,157,300** | **–** | **13,313** | **–** | **–** | **–** | **40,282** | **9,210,895** |
| Bulgaria | *–* | *–* | – | – | 211 | – | – | – | – | 211 |
| Denmark | *326,775* | *734* | 327,509 | – | 561 | – | – | – | – | 328,070 |
| France | *–* | *291* | 291 | – | – | – | – | – | – | 291 |
| Italy | *37,987* | *59,825* | 97,812 | – | 1,492 | – | – | – | – | 99,304 |
| Netherlands | *238,271* | *–* | 238,271 | – | 623 | – | – | – | – | 238,894 |
| Norway | *5,344,581* | *57,058* | 5,401,639 | – | 4,417 | – | – | – | – | 5,406,056 |
| Russia | *8,139* | *8,475* | 16,614 | – | 85 | – | – | – | 40,282 | 56,981 |
| United Kingdom | *3,075,164* | *–* | 3,075,164 | – | 5,924 | – | – | – | – | 3,081,088 |
| **Africa** | ***2,125,548*** | ***835,781*** | **2,961,329** | **–** | **91,522** | **78,882** | **81,259** | **49,214** | **2,611,973** | **5,874,179** |
| Angola | *759,455* | *116,424* | 875,879 | – | 12,042 | – | – | 1,411 | 2,492,888 | 3,382,220 |
| Côte d'Ivoire | *–* | *–* | – | – | 141 | – | – | – | – | 141 |
| Democratic Republic of the Congo | *–* | *–* | – | – | 750 | – | – | – | – | 750 |
| Gabon | *45,334* | *91,283* | 136,617 | – | 3,455 | 60,000 | 81,259 | 11,320 | – | 292,651 |
| Kenya | *–* | *–* | – | – | 146 | – | – | – | – | 146 |
| Mauritania | *–* | *–* | – | – | 1,295 | – | – | – | – | 1,295 |
| Mozambique | *–* | *–* | – | – | 1,060 | – | – | – | – | 1,060 |
| Nigeria | *893,380* | *278,356* | 1,171,736 | – | 12,475 | – | – | 35,046 | 118,372 | 1,337,629 |
| Republic of the Congo | *427,379* | *349,718* | 777,097 | – | 57,665 | 18,882 | – | 1,437 | 713 | 855,794 |
| São Tomé and Principe | *–* | *–* | – | – | 605 | – | – | – | – | 605 |
| Senegal | *–* | *–* | – | – | 273 | – | – | – | – | 273 |
| Uganda | *–* | *–* | – | – | 1,615 | – | – | – | – | 1,615 |
| **Middle East and North Africa** | ***1,009,946*** | ***11,711,104*** | **12,721,050** | **–** | **11,902** | **60,593** | **–** | **15,000** | **2,520,319** | **15,328,864** |
| Algeria | *280,715* | *486,788* | 767,503 | – | 2,257 | 13,090 | – | – | – | 782,850 |
| Cyprus | *–* | *–* | – | – | 965 | – | – | – | – | 965 |
| Egypt | *–* | *–* | – | – | 150 | – | – | – | – | 150 |
| Iraq | *4,999* | *18,570* | 23,569 | – | – | – | – | – | – | 23,569 |
| Lebanon | *–* | *–* | – | – | 106 | – | – | – | – | 106 |
| Libya | *594,052* | *2,232,236* | 2,826,288 | – | 132 | 22,500 | – | 15,000 | 1,618,851 | 4,482,771 |
| Oman | *–* | *557,290* | 557,290 | – | 200 | – | – | – | – | 557,490 |
| Qatar | *130,180* | *26,629* | 156,809 | – | – | 25,003 | – | – | 901,468 | 1,083,280 |
| United Arab Emirates | *–* | *8,389,591* | 8,389,591 | – | 8,092 | – | – | – | – | 8,397,683 |
| **Americas** | ***333,131*** | ***814,221*** | **1,147,352** | **324,428** | **67,997** | **2,885,087** | **–** | **–** | **146,304** | **4,571,168** |
| Argentina | *173,361* | *80,245* | 253,606 | – | 5,662 | 5,726 | – | – | – | 264,994 |
| Bolivia | *–* | *261,816* | 261,816 | – | 1,326 | 937 | – | – | 31,086 | 295,165 |
| Brazil | *148,477* | *436,346* | 584,823 | – | 14,729 | 2,878,424 | – | – | 115,218 | 3,593,194 |
| Canada | *–* | *–* | – | 204,250 | 24,064 | – | – | – | – | 228,314 |
| Mexico | *–* | *4,489* | 4,489 | – | 19,288 | – | – | – | – | 23,777 |
| United States | *11,293* | *31,325* | 42,618 | 120,178 | 2,928 | – | – | – | – | 165,724 |
| **Asia Pacific** | ***457,505*** | ***174,516*** | **632,021** | **–** | **7,870** | **48,012** | **–** | **3,165** | **196,980** | **888,048** |
| Australia | *–* | *43,474* | 43,474 | – | 1,861 | – | – | – | – | 45,335 |
| Brunei | *47,171* | *11,783* | 58,954 | – | 7 | – | – | – | 11,735 | 70,696 |
| China | *25,524* | *21,167* | 46,691 | – | – | – | – | – | 27,110 | 73,801 |
| Indonesia | *5,887* | *–* | 5,887 | – | – | – | – | – | 5,645 | 11,532 |
| Kazakhstan | *19,921* | *77,915* | 97,836 | – | 67 | 2,304 | – | 3,165 | 52,445 | 155,817 |
| Malaysia | *–* | *–* | – | – | 5,009 | – | – | – | – | 5,009 |
| Myanmar | *16,000* | *19,406* | 35,406 | – | – | – | – | – | 100,045 | 135,451 |
| Papua New Guinea | *–* | *–* | – | – | 926 | – | – | – | – | 926 |
| Thailand | *343,002* | *771* | 343,773 | – | – | 45,708 | – | – | – | 389,481 |
| **Total** | ***12,957,047*** | ***13,662,005*** | **26,619,052** | **324,428** | **192,604** | **3,072,574** | **81,259** | **67,379** | **5,515,858** | **35,873,154** |

## 9.3.2 Reporting of Payments by Project and by type of Payment, and by Government and by type of Payment

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Algeria (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Groupement Berkine | – | – | – | – | – | – | – | – | – | – |
| Organisation Orhoud | – | – | – | – | – | – | – | – | – | – |
| Timimoun | – | *45,479* | 45,479 | – | 874 | – | – | – | – | 46,353 |
| Tin Fouyé Tabankort II | – | *298,641* | 298,641 | – | 1,208 | 3,930 | – | – | – | 303,779 |
| Tin Fouyé Tabankort Sud | – | – | – | – | 175 | 9,160 | – | – | – | 9,335 |
| **Total** | **–** | ***344,120*** | **344,120** | **–** | **2,257** | **13,090** | **–** | **–** | **–** | **359,467** |
| **Payments per Government** | | | | | | | | | | |
| Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach | – | – | – | – | – | – | – | – | – | – |
| Direction Générale des Impôts, Direction des Grandes Entreprises | – | *250,056* | 250,056 | – | 2,257 | – | – | – | – | 252,313 |
| Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT) | – | *94,064* | 94,064 | – | – | – | – | – | – | 94,064 |
| Sonatrach | – | – | – | – | – | 13,090 | – | – | – | 13,090 |
| **Total** | **–** | ***344,120*** | **344,120** | **–** | **2,257** | **13,090** | **–** | **–** | **–** | **359,467** |
| **Algeria (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Groupement Berkine | *2,387* | *1,326* | 3,713 | – | – | – | – | – | – | 3,713 |
| Organisation Orhoud | *391* | *115* | 506 | – | – | – | – | – | – | 506 |
| Timimoun | – | – | – | – | – | – | – | – | – | – |
| Tin Fouyé Tabankort II | – | – | – | – | – | – | – | – | – | – |
| Tin Fouyé Tabankort Sud | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***2,778*** | ***1,441*** | **4,219** | **–** | **–** | **–** | **–** | **–** | **–** | **4,219** |
| **Payments per Government** | | | | | | | | | | |
| Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach | *2,778* | *1,441* | 4,219 | – | – | – | – | – | – | 4,219 |
| Direction Générale des Impôts, Direction des Grandes Entreprises | – | – | – | – | – | – | – | – | – | – |
| Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT) | – | – | – | – | – | – | – | – | – | – |
| Sonatrach | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***2,778*** | ***1,441*** | **4,219** | **–** | **–** | **–** | **–** | **–** | **–** | **4,219** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**Algeria (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Groupement Berkine | *235,946[a]* | *130,474[b]* | 366,420 | – | – | – | – | – | – | 366,420 |
| Organisation Orhoud | *44,769[c]* | *12,194[d]* | 56,963 | – | – | – | – | – | – | 56,963 |
| Timimoun | – | *45,479* | 45,479 | – | 874 | – | – | – | – | 46,353 |
| Tin Fouyé Tabankort II | – | *298,641* | 298,641 | – | 1,208 | 3,930 | – | – | – | 303,779 |
| Tin Fouyé Tabankort Sud | – | – | – | – | 175 | 9,160 | – | – | – | 9,335 |
| **Total** | ***280,715*** | ***486,788*** | **767,503** | **–** | **2,257** | **13,090** | **–** | **–** | **–** | **782,850** |
| **Payments per Government** | | | | | | | | | | |
| Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach | *280,715[e]* | *142,668[f]* | 423,383 | – | – | – | – | – | – | 423,383 |
| Direction Générale des Impôts, Direction des Grandes Entreprises | – | *250,056* | 250,056 | – | 2,257 | – | – | – | – | 252,313 |
| Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT) | – | *94,064* | 94,064 | – | – | – | – | – | – | 94,064 |
| Sonatrach | – | – | – | – | – | 13,090 | – | – | – | 13,090 |
| **Total** | ***280,715*** | ***486,788*** | **767,503** | **–** | **2,257** | **13,090** | **–** | **–** | **–** | **782,850** |

(a) Corresponds to the valuation of 2,387 kboe at fiscal selling prices for income taxes.
(b) Corresponds to the valuation of 1,326 kboe at fiscal selling prices for taxes of different natures.
(c) Corresponds to the valuation of 391 kboe at fiscal selling prices for income taxes.
(d) Corresponds to the valuation of 115 kboe at fiscal selling prices for taxes of different natures.
(e) Corresponds to the valuation of 2,778 kboe at fiscal selling prices for income taxes.
(f) Corresponds to the valuation of 1,441 kboe at fiscal selling prices for taxes of different natures.

**Angola (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Block 0 | *179,027* | *116,424* | 295,451 | – | 840 | – | – | – | – | 296,291 |
| Block 14 | *14,207* | – | 14,207 | – | 464 | – | – | – | – | 14,671 |
| Block 14k | *1,167* | – | 1,167 | – | 42 | – | – | – | – | 1,209 |
| Block 16 | – | – | – | – | 320 | – | – | – | – | 320 |
| Block 17 | *442,734* | – | 442,734 | – | 6,862 | – | – | 427 | – | 450,023 |
| Block 17/06 | *3* | – | 3 | – | 123 | – | – | – | – | 126 |
| Block 20 | – | – | – | – | 458 | – | – | – | – | 458 |
| Block 21 | – | – | – | – | 482 | – | – | – | – | 482 |
| Block 32 | *122,317* | – | 122,317 | – | 2,240 | – | – | 984 | – | 125,541 |
| Block 48 | – | – | – | – | 211 | – | – | – | – | 211 |
| **Total** | ***759,455*** | ***116,424*** | **875,879** | **–** | **12,042** | **–** | **–** | **1,411** | **–** | **889,332** |
| **Payments per Government** | | | | | | | | | | |
| Caixa do Tesouro Nacional | *759,455* | *116,424* | 875,879 | – | 601 | – | – | – | – | 876,480 |
| Ministério dos Recursos Minerais, Petróleo e Gás | – | – | – | – | 11,441 | – | – | – | – | 11,441 |
| ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis | – | – | – | – | – | – | – | 1,411 | – | 1,411 |
| **Total** | ***759,455*** | ***116,424*** | **875,879** | **–** | **12,042** | **–** | **–** | **1,411** | **–** | **889,332** |

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Angola (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 0 | – | – | – | – | – | – | – | – | – | – |
| Block 14 | – | – | – | – | – | – | – | – | 869 | 869 |
| Block 14k | – | – | – | – | – | – | – | – | 8 | 8 |
| Block 16 | – | – | – | – | – | – | – | – | – | – |
| Block 17 | – | – | – | – | – | – | – | – | 22,457 | 22,457 |
| Block 17/06 | – | – | – | – | – | – | – | – | – | – |
| Block 20 | – | – | – | – | – | – | – | – | – | – |
| Block 21 | – | – | – | – | – | – | – | – | – | – |
| Block 32 | – | – | – | – | – | – | – | – | 836 | 836 |
| Block 48 | – | – | – | – | – | – | – | – | – | – |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **24,171** | **24,171** |
| **Payments per Government** | | | | | | | | | | |
| Caixa do Tesouro Nacional | – | – | – | – | – | – | – | – | – | – |
| Ministério dos Recursos Minerais, Petróleo e Gás | – | – | – | – | – | – | – | – | – | – |
| ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis | – | – | – | – | – | – | – | – | 24,171 | 24,171 |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **24,171** | **24,171** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Angola (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 0 | *179,027* | *116,424* | 295,451 | – | 840 | – | – | – | – | 296,291 |
| Block 14 | *14,207* | – | 14,207 | – | 464 | – | – | – | 88,361[(a)] | 103,032 |
| Block 14k | *1,167* | – | 1,167 | – | 42 | – | – | – | 661[(b)] | 1,870 |
| Block 16 | – | – | – | – | 320 | – | – | – | – | 320 |
| Block 17 | *442,734* | – | 442,734 | – | 6,862 | – | – | 427 | 2,320,431[(c)] | 2,770,454 |
| Block 17/06 | *3* | – | 3 | – | 123 | – | – | – | – | 126 |
| Block 20 | – | – | – | – | 458 | – | – | – | – | 458 |
| Block 21 | – | – | – | – | 482 | – | – | – | – | 482 |
| Block 32 | *122,317* | – | 122,317 | – | 2,240 | – | – | 984 | 83,435[(d)] | 208,976 |
| Block 48 | – | – | – | – | 211 | – | – | – | – | 211 |
| **Total** | ***759,455*** | ***116,424*** | **875,879** | **–** | **12,042** | **–** | **–** | **1,411** | **2,492,888** | **3,382,220** |
| **Payments per Government** | | | | | | | | | | |
| Caixa do Tesouro Nacional | *759,455* | *116,424* | 875,879 | – | 601 | – | – | – | – | 876,480 |
| Ministério dos Recursos Minerais, Petróleo e Gás | – | – | – | – | 11,441 | – | – | – | – | 11,441 |
| ANPG - Agência Nacional de Petróleo, Gás e Biocombustíveis | – | – | – | – | – | – | – | 1,411 | 2,492,888[(e)] | 2,494,299 |
| **Total** | ***759,455*** | ***116,424*** | **875,879** | **–** | **12,042** | **–** | **–** | **1,411** | **2,492,888** | **3,382,220** |

(a) Corresponds to the valuation of 869 kboe at the weighted average fiscal price of the year.
(b) Corresponds to the valuation of 8 kboe at the weighted average fiscal price of the year.
(c) Corresponds to the valuation of 22,457 kboe at the weighted average fiscal price of the year.
(d) Corresponds to the valuation of 836 kboe at the weighted average fiscal price of the year.
(e) Corresponds to the valuation of 24,171 kboe at the weighted average fiscal price of the year.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Argentina (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Cuenca Argentina Norte - Block 111 | – | – | – | – | 78 | – | – | – | – | 78 |
| Cuenca Argentina Norte - Block 113 | – | – | – | – | 81 | – | – | – | – | 81 |
| Malvinas Ocidental - Block 123 | – | – | – | – | 35 | – | – | – | – | 35 |
| Neuquen | – | *36,050* | 36,050 | – | 549 | – | – | – | – | 36,599 |
| Santa Cruz | – | – | – | – | 406 | – | – | – | – | 406 |
| Tierra del Fuego | – | *44,195* | 44,195 | – | 4,513 | 5,726 | – | – | – | 54,434 |
| Argentina (non–attributable) | *173,361* | – | 173,361 | – | – | – | – | – | – | 173,361 |
| **Total** | ***173,361*** | ***80,245*** | **253,606** | **–** | **5,662** | **5,726** | **–** | **–** | **–** | **264,994** |
| **Payments per Government** | | | | | | | | | | |
| Administracion Federal de Ingresos Publicos | *173,361* | – | 173,361 | – | – | – | – | – | – | 173,361 |
| Secretaria de Energia, Republica Argentina | – | *27,375* | 27,375 | – | 1,003 | 5,726 | – | – | – | 34,104 |
| Provincia del Neuquen | – | *36,050* | 36,050 | – | 549 | – | – | – | – | 36,599 |
| Provincia de Tierra del Fuego | – | *16,820* | 16,820 | – | 4,110 | – | – | – | – | 20,930 |
| **Total** | ***173,361*** | ***80,245*** | **253,606** | **–** | **5,662** | **5,726** | **–** | **–** | **–** | **264,994** |
| **Australia (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| GLNG | – | *43,474* | 43,474 | – | 1,861 | – | – | – | – | 45,335 |
| **Total** | **–** | ***43,474*** | **43,474** | **–** | **1,861** | **–** | **–** | **–** | **–** | **45,335** |
| **Payments per Government** | | | | | | | | | | |
| Queensland Government | – | – | – | – | 1,861 | – | – | – | – | 1,861 |
| Queensland Government, Queensland Revenue Office | – | *43,474* | 43,474 | – | – | – | – | – | – | 43,474 |
| **Total** | **–** | ***43,474*** | **43,474** | **–** | **1,861** | **–** | **–** | **–** | **–** | **45,335** |
| **Bolivia (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Aquio | – | *32,564* | 32,564 | – | 148 | – | – | – | – | 32,712 |
| Azero | – | – | – | – | 726 | – | – | – | – | 726 |
| Ipatí | – | *168,764* | 168,764 | – | 230 | – | – | – | – | 168,994 |
| Itaú | – | *10,087* | 10,087 | – | 126 | – | – | – | – | 10,213 |
| San Alberto | – | *13,173* | 13,173 | – | 32 | 579 | – | – | – | 13,784 |
| San Antonio | – | *37,228* | 37,228 | – | 64 | 358 | – | – | – | 37,650 |
| **Total** | **–** | ***261,816*** | **261,816** | **–** | **1,326** | **937** | **–** | **–** | **–** | **264,079** |
| **Payments per Government** | | | | | | | | | | |
| Yacimientos Petroliferos Fiscales Bolivianos (YPFB) | – | – | – | – | 1,326 | 937 | – | – | – | 2,263 |
| Servicio de Impuestos Nacionales (SIN) c/o YPFB | – | *167,563* | 167,563 | – | – | – | – | – | – | 167,563 |
| Departamentos c/o YPFB | – | *94,253* | 94,253 | – | – | – | – | – | – | 94,253 |
| **Total** | **–** | ***261,816*** | **261,816** | **–** | **1,326** | **937** | **–** | **–** | **–** | **264,079** |

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Bolivia (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Aquio | – | – | – | – | – | – | – | – | 119 | 119 |
| Azero | – | – | – | – | – | – | – | – | – | – |
| Ipatí | – | – | – | – | – | – | – | – | – | – |
| Itaú | – | – | – | – | – | – | – | – | – | – |
| San Alberto | – | – | – | – | – | – | – | – | 152 | 152 |
| San Antonio | – | – | – | – | – | – | – | – | 981 | 981 |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **1,252** | **1,252** |
| **Payments per Government** | | | | | | | | | | |
| Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) | – | – | – | – | – | – | – | – | 1,252 | 1,252 |
| Servicio de Impuestos Nacionales (SIN) c/o YPFB | – | – | – | – | – | – | – | – | – | – |
| Departamentos c/o YPFB | – | – | – | – | – | – | – | – | – | – |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **1,252** | **1,252** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Bolivia (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Aquio | – | *32,564* | 32,564 | – | 148 | – | – | – | 3,623[a] | 36,335 |
| Azero | – | – | – | – | 726 | – | – | – | – | 726 |
| Ipatí | – | *168,764* | 168,764 | – | 230 | – | – | – | – | 168,994 |
| Itaú | – | *10,087* | 10,087 | – | 126 | – | – | – | – | 10,213 |
| San Alberto | – | *13,173* | 13,173 | – | 32 | 579 | – | – | 5,352[b] | 19,136 |
| San Antonio | – | *37,228* | 37,228 | – | 64 | 358 | – | – | 22,111[c] | 59,761 |
| **Total** | **–** | ***261,816*** | **261,816** | **–** | **1,326** | **937** | **–** | **–** | **31,086** | **295,165** |
| **Payments per Government** | | | | | | | | | | |
| Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) | – | – | – | – | 1,326 | 937 | – | – | 31,086[d] | 33,349 |
| Servicio de Impuestos Nacionales (SIN) c/o YPFB | – | *167,563* | 167,563 | – | – | – | – | – | – | 167,563 |
| Departamentos c/o YPFB | – | *94,253* | 94,253 | – | – | – | – | – | – | 94,253 |
| **Total** | **–** | ***261,816*** | **261,816** | **–** | **1,326** | **937** | **–** | **–** | **31,086** | **295,165** |

(a) Corresponds to the valuation of 119 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas;
(b) Corresponds to the valuation of 152 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(c) Corresponds to the valuation of 981 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.
(d) Corresponds to the valuation of 1,252 kboe for production entitlements at a fixed regulated price for condensates and on a net-back regulated price for gas.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Brazil (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Atapu Norte | – | *261* | 261 | – | – | – | – | – | – | 261 |
| Atapu ToR Surplus | – | *47,966* | 47,966 | – | – | 1,192,917 | – | – | – | 1,240,883 |
| Ceara (CE–M–661) | – | – | – | – | 10,359 | – | – | – | – | 10,359 |
| C–M–541 | – | – | – | – | 1,406 | – | – | – | – | 1,406 |
| Espirito Santo | – | – | – | – | 185 | – | – | – | – | 185 |
| Iara | – | *129,516* | 129,516 | – | – | – | – | – | – | 129,516 |
| Lapa | – | *96,509* | 96,509 | – | 2,636 | – | – | – | – | 99,145 |
| Libra | – | *81,888* | 81,888 | – | – | – | – | – | – | 81,888 |
| Sépia ToR Surplus | – | *80,206* | 80,206 | – | – | 1,632,098 | – | – | – | 1,712,304 |
| S–M–1711 | – | – | – | – | – | 29,132 | – | – | – | 29,132 |
| S–M–1815 | – | – | – | – | – | 24,277 | – | – | – | 24,277 |
| Xerelete | – | – | – | – | 41 | – | – | – | – | 41 |
| Brazil (non–attributable) | *148,477* | – | 148,477 | – | 102 | – | – | – | – | 148,579 |
| **Total** | ***148,477*** | ***436,346*** | **584,823** | **–** | **14,729** | **2,878,424** | **–** | **–** | **–** | **3,477,976** |
| **Payments per Government** | | | | | | | | | | |
| Agencia National de Petroleo, Gas Natural e Biocombustiveis | – | – | – | – | 467 | 596,129 | – | – | – | 596,596 |
| Fundo de Compensação Ambiental (FCA) | – | – | – | – | 1,678 | – | – | – | – | 1,678 |
| Receita Federal | *148,477* | *436,346* | 584,823 | – | – | – | – | – | – | 584,823 |
| Petrobras | – | – | – | – | – | 2,282,295 | – | – | – | 2,282,295 |
| Pré-sal Petroleo (PPSA) | – | – | – | – | – | – | – | – | – | – |
| Secretaria do Tesouro Nacional | – | – | – | – | 12,584 | – | – | – | – | 12,584 |
| **Total** | ***148,477*** | ***436,346*** | **584,823** | **–** | **14,729** | **2,878,424** | **–** | **–** | **–** | **3,477,976** |
| **Brazil (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Atapu Norte | – | – | – | – | – | – | – | – | – | – |
| Atapu ToR Surplus | – | – | – | – | – | – | – | – | 144 | 144 |
| Ceara (CE–M–661) | – | – | – | – | – | – | – | – | – | – |
| C–M–541 | – | – | – | – | – | – | – | – | – | – |
| Espirito Santo | – | – | – | – | – | – | – | – | – | – |
| Iara | – | – | – | – | – | – | – | – | – | – |
| Lapa | – | – | – | – | – | – | – | – | – | – |
| Libra | – | – | – | – | – | – | – | – | 1,165 | 1,165 |
| Sépia ToR Surplus | – | – | – | – | – | – | – | – | 116 | 116 |
| S–M–1711 | – | – | – | – | – | – | – | – | – | – |
| S–M–1815 | – | – | – | – | – | – | – | – | – | – |
| Xerelete | – | – | – | – | – | – | – | – | – | – |
| Brazil (non–attributable) | – | – | – | – | – | – | – | – | – | – |
| **Total** | *–* | *–* | **–** | **–** | **–** | **–** | **–** | **–** | **1,424** | **1,424** |
| **Payments per Government** | | | | | | | | | | |
| Agencia National de Petroleo, Gas Natural e Biocombustiveis | – | – | – | – | – | – | – | – | – | – |
| Fundo de Compensação Ambiental (FCA) | – | – | – | – | – | – | – | – | – | – |
| Receita Federal | – | – | – | – | – | – | – | – | – | – |
| Petrobras | – | – | – | – | – | – | – | – | – | – |
| Pré-sal Petroleo (PPSA) | – | – | – | – | – | – | – | – | 1,424 | 1,424 |
| Secretaria do Tesouro Nacional | – | – | – | – | – | – | – | – | – | – |
| **Total** | *–* | *–* | **–** | **–** | **–** | **–** | **–** | **–** | **1,424** | **1,424** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**Brazil (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Atapu Norte | – | *261* | 261 | – | – | – | – | – | – | 261 |
| Atapu ToR Surplus | – | *47,966* | 47,966 | – | – | 1,192,917[a] | – | – | 12,840[b] | 1,253,723 |
| Ceara (CE–M–661) | – | – | – | – | 10,359 | – | – | – | – | 10,359 |
| C–M–541 | – | – | – | – | 1,406 | – | – | – | – | 1,406 |
| Espirito Santo | – | – | – | – | 185 | – | – | – | – | 185 |
| Iara | – | *129,516* | 129,516 | – | – | – | – | – | – | 129,516 |
| Lapa | – | *96,509* | 96,509 | – | 2,636 | – | – | – | – | 99,145 |
| Libra | – | *81,888* | 81,888 | – | – | – | – | – | 95,654[c] | 177,542 |
| Sépia ToR Surplus | – | *80,206* | 80,206 | – | – | 1,632,098[d] | – | – | 6,724[e] | 1,719,028 |
| S–M–1711 | – | – | – | – | – | 29,132 | – | – | – | 29,132 |
| S–M–1815 | – | – | – | – | – | 24,277 | – | – | – | 24,277 |
| Xerelete | – | – | – | – | 41 | – | – | – | – | 41 |
| Brazil (non–attributable) | *148,477* | – | 148,477 | – | 102 | – | – | – | – | 148,579 |
| **Total** | ***148,477*** | ***436,346*** | **584,823** | **–** | **14,729** | **2,878,424** | **–** | **–** | **115,218** | **3,593,194** |
| **Payments per Government** | | | | | | | | | | |
| Agencia National de Petroleo, Gas Natural e Biocombustiveis | – | – | – | – | 467 | 596,129 | – | – | – | 596,596 |
| Fundo de Compensação Ambiental (FCA) | – | – | – | – | 1,678 | – | – | – | – | 1,678 |
| Receita Federal | *148,477* | *436,346* | 584,823 | – | – | – | – | – | – | 584,823 |
| Petrobas | – | – | – | – | – | 2,282,295[f] | | | | 2,282,295 |
| Pré-sal Petroleo (PPSA) | – | – | – | – | – | – | – | – | 115,218[g] | 115,218 |
| Secretaria do Tesouro Nacional | – | – | – | – | 12,584 | – | | | | 12,584 |
| **Total** | ***148,477*** | ***436,346*** | **584,823** | **–** | **14,729** | **2,878,424** | **–** | **–** | **115,218** | **3,593,194** |

(a) Includes 1,024 M$ of compensation for assets transfer paid to Petrobras.
(b) Corresponds to the valuation of 144 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(c) Corresponds to the valuation of 1,165 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(d) Includes 1,258 M$ of compensation for assets transfer paid to Petrobras.
(e) Corresponds to the valuation of 116 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.
(f) Corresponds to the compensation for assets transfer paid to Petrobras, majority controlled by the Brasilian State as of December 31, 2022.
(g) Corresponds to the valuation of 1,424 kboe at the fiscal reference price determined by ANP (Agencia National de Petroleo) for production entitlements.

**Brunei (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Block B | *47,171* | *11,783* | 58,954 | – | 7 | – | – | – | 11,735[a] | 70,696 |
| **Total** | ***47,171*** | ***11,783*** | **58,954** | **–** | **7** | **–** | **–** | **–** | **11,735** | **70,696** |
| **Payments per Government** | | | | | | | | | | |
| Brunei Government | *47,171* | *11,783* | 58,954 | – | 7 | – | – | – | 11,735[a] | 70,696 |
| **Total** | ***47,171*** | ***11,783*** | **58,954** | **–** | **7** | **–** | **–** | **–** | **11,735** | **70,696** |

(a) Corresponds to the payment related to Domestic Gas Supply Obligation.

**Bulgaria (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Khan Asparuh | – | – | – | – | 211 | – | – | – | – | 211 |
| **Total** | **–** | **–** | **–** | **–** | **211** | **–** | **–** | **–** | **–** | **211** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Energy of Bulgaria | – | – | – | – | 211 | – | – | – | – | 211 |
| **Total** | **–** | **–** | **–** | **–** | **211** | **–** | **–** | **–** | **–** | **211** |

**Canada (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Deer Creek | – | – | – | – | 1 | – | – | – | – | 1 |
| Fort Hills | – | – | – | 73,096 | 11,759 | – | – | – | – | 84,855 |
| Northern Lights | – | – | – | – | 98 | – | – | – | – | 98 |
| Surmont | – | – | – | 131,154 | 12,202 | – | – | – | – | 143,356 |
| Other oil sands projects | – | – | – | – | 4 | – | – | – | – | 4 |
| **Total** | **–** | **–** | **–** | **204,250** | **24,064** | **–** | **–** | **–** | **–** | **228,314** |
| **Payments per Government** | | | | | | | | | | |
| Province of Alberta | – | – | – | 204,250 | 2,821 | – | – | – | – | 207,071 |
| Municipality of Wood Buffalo (Alberta) | – | – | – | – | 20,903 | – | – | – | – | 20,903 |
| Fort McKay First Nations (FMFN) | – | – | – | – | 340 | – | – | – | – | 340 |
| **Total** | **–** | **–** | **–** | **204,250** | **24,064** | **–** | **–** | **–** | **–** | **228,314** |

**China (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Sulige | *25,524* | *1,650* | 27,174 | – | – | – | – | – | – | 27,174 |
| **Total** | ***25,524*** | ***1,650*** | **27,174** | **–** | **–** | **–** | **–** | **–** | **–** | **27,174** |
| **Payments per Government** | | | | | | | | | | |
| China National Petroleum Company | – | *1,650* | 1,650 | – | – | – | – | – | – | 1,650 |
| Etoke Tax Bureau | *12,546* | – | 12,546 | – | – | – | – | – | – | 12,546 |
| Guangzhou Offshore Oil Tax Bureau | *216* | – | 216 | – | – | – | – | – | – | 216 |
| Tianjin Offshore Oil Tax Bureau | *12,762* | – | 12,762 | – | – | – | – | – | – | 12,762 |
| **Total** | ***25,524*** | ***1,650*** | **27,174** | **–** | **–** | **–** | **–** | **–** | **–** | **27,174** |

**China (paid in kind (kboe))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Sulige | – | *651* | 651 | – | – | – | – | – | 901 | 1,552 |
| **Total** | **–** | ***651*** | **651** | **–** | **–** | **–** | **–** | **–** | **901** | **1,552** |
| **Payments per Government** | | | | | | | | | | |
| China National Petroleum Company | – | *651* | 651 | – | – | – | – | – | 901 | 1,552 |
| Etoke Tax Bureau | – | – | – | – | – | – | – | – | – | – |
| Guangzhou Offshore Oil Tax Bureau | – | – | – | – | – | – | – | – | – | – |
| Tianjin Offshore Oil Tax Bureau | – | – | – | – | – | – | – | – | – | – |
| **Total** | **–** | ***651*** | **651** | **–** | **–** | **–** | **–** | **–** | **901** | **1,552** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**China (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Sulige | *25,524* | *21,167*(a) | 46,691 | – | – | – | – | – | 27,110(b) | 73,801 |
| **Total** | ***25,524*** | ***21,167*** | **46,691** | **–** | **–** | **–** | **–** | **–** | **27,110** | **73,801** |
| **Payments per Government** | | | | | | | | | | |
| China National Petroleum Company | – | *21,167*(a) | 21,167 | – | – | – | – | – | 27,110(b) | 48,277 |
| Etoke Tax Bureau | *12,546* | – | 12,546 | – | – | – | – | – | | 12,546 |
| Guangzhou Offshore Oil Tax Bureau | *216* | – | 216 | – | – | – | – | – | | 216 |
| Tianjin Offshore Oil Tax Bureau | *12,762* | – | 12,762 | – | – | – | – | – | | 12,762 |
| **Total** | ***25,524*** | ***21,167*** | **46,691** | **–** | **–** | **–** | **–** | **–** | **27,110** | **73,801** |

(a) Includes the valuation for 19,517 k$ of 651 kboe for taxes of different natures.
(b) Corresponds to the valuation of 901 kboe for production entitlements.

**Côte d'Ivoire (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| CI-705 | – | – | – | – | 141 | – | – | – | – | 141 |
| **Total** | **–** | **–** | **–** | **–** | **141** | **–** | **–** | **–** | **–** | **141** |
| **Payments per Government** | | | | | | | | | | |
| République de Côte d'Ivoire, Direction Générale des Hydrocarbures | – | – | – | – | 141 | – | – | – | – | 141 |
| **Total** | **–** | **–** | **–** | **–** | **141** | **–** | **–** | **–** | **–** | **141** |

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Cyprus (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 2 | – | – | – | – | 71 | – | – | – | – | 71 |
| Block 3 | – | – | – | – | 96 | – | – | – | – | 96 |
| Block 6 | – | – | – | – | 168 | – | – | – | – | 168 |
| Block 7 | – | – | – | – | 163 | – | – | – | – | 163 |
| Block 8 | – | – | – | – | 174 | – | – | – | – | 174 |
| Block 9 | – | – | – | – | 66 | – | – | – | – | 66 |
| Block 11 | – | – | – | – | 227 | – | – | – | – | 227 |
| **Total** | **–** | **–** | **–** | **–** | **965** | **–** | **–** | **–** | **–** | **965** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Energy, Commerce, Industry and Tourism | – | – | – | – | 965 | – | – | – | – | 965 |
| **Total** | **–** | **–** | **–** | **–** | **965** | **–** | **–** | **–** | **–** | **965** |
| **Democratic Republic of the Congo (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 3 | – | – | – | – | 750 | – | – | – | – | 750 |
| **Total** | **–** | **–** | **–** | **–** | **750** | **–** | **–** | **–** | **–** | **750** |
| **Payments per Government** | | | | | | | | | | |
| Ministère des Hydrocarbures | – | – | – | – | 750 | – | – | – | – | 750 |
| **Total** | **–** | **–** | **–** | **–** | **750** | **–** | **–** | **–** | **–** | **750** |
| **Denmark (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Sole Concession Area | *326,775*[(a)] | *734* | 327,509 | – | 561 | – | – | – | – | 328,070 |
| **Total** | ***326,775*** | ***734*** | **327,509** | **–** | **561** | **–** | **–** | **–** | **–** | **328,070** |
| **Payments per Government** | | | | | | | | | | |
| Arbejdstilsynet | – | – | – | – | 310 | – | – | – | – | 310 |
| Energistyrelsen | – | – | – | – | 251 | – | – | – | – | 251 |
| Skat | *326,775*[(a)] | *734* | 327,509 | – | – | – | – | – | – | 327,509 |
| **Total** | ***326,775*** | ***734*** | **327,509** | **–** | **561** | **–** | **–** | **–** | **–** | **328,070** |

(a) Includes 46 M$ of windfall taxes (3B Surplus).

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Egypt (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| North Ras El Kanyis Offshore | – | – | – | – | 150 | – | – | – | – | 150 |
| **Total** | **–** | **–** | **–** | **–** | **150** | **–** | **–** | **–** | **–** | **150** |
| **Payments per Government** | | | | | | | | | | |
| Egyptian Natural Gas Holding Company | – | – | – | – | 150 | – | – | – | – | 150 |
| **Total** | **–** | **–** | **–** | **–** | **150** | **–** | **–** | **–** | **–** | **150** |
| **France (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Lacq | – | *291*[(a)] | 291 | – | – | – | – | – | – | 291 |
| **Total** | **–** | ***291*** | **291** | **–** | **–** | **–** | **–** | **–** | **–** | **291** |
| **Payments per Government** | | | | | | | | | | |
| Trésor Public | – | *291*[(a)] | 291 | – | – | – | – | – | – | 291 |
| **Total** | **–** | ***291*** | **291** | **–** | **–** | **–** | **–** | **–** | **–** | **291** |

(a) Corresponds to the payment of *taxe quotas émission* $CO_2$ related to 2012.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Gabon (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Baudroie-Mérou CEPP | – | 11,974 | 11,974 | – | 973 | 60,000 | – | – | – | 72,947 |
| Concessions (périmètre Convention d'Etablissement) | – | 2,139 | 2,139 | – | 2,482 | – | – | 11,320 | – | 15,941 |
| Concession Anguille | – | 38,128 | 38,128 | – | – | – | – | – | – | 38,128 |
| Concession Grondin | – | 416 | 416 | – | – | – | – | – | – | 416 |
| Concession Torpille | – | 38,604 | 38,604 | – | – | – | – | – | – | 38,604 |
| Hylia II CEPP | – | 22 | 22 | – | – | – | – | – | – | 22 |
| Non-attributable | – | – | – | – | – | – | 81,259 | – | – | 81,259 |
| **Total** | **–** | **91,283** | **91,283** | **–** | **3,455** | **60,000** | **81,259** | **11,320** | **–** | **247,317** |
| **Payments per Government** | | | | | | | | | | |
| Trésor Public gabonais | – | 91,283 | 91,283 | – | 3,448 | 60,000 | – | – | – | 154,731 |
| République du Gabon | – | – | – | – | – | – | 81,259 | 5,786 | – | 87,045 |
| Ville de Libreville | – | – | – | – | – | – | – | 564 | – | 564 |
| Ville de Port-Gentil | – | – | – | – | 7 | – | – | 4,970 | – | 4,977 |
| **Total** | **–** | **91,283** | **91,283** | **–** | **3,455** | **60,000** | **81,259** | **11,320** | **–** | **247,317** |
| **Gabon (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Baudroie-Mérou CEPP | 481 | – | 481 | – | – | – | – | – | – | 481 |
| Concessions (périmètre Convention d'Etablissement) | – | – | – | – | – | – | – | – | – | – |
| Concession Anguille | – | – | – | – | – | – | – | – | – | – |
| Concession Grondin | – | – | – | – | – | – | – | – | – | – |
| Concession Torpille | – | – | – | – | – | – | – | – | – | – |
| Hylia II CEPP | – | – | – | – | – | – | – | – | – | – |
| Non-attributable | – | – | – | – | – | – | – | – | – | – |
| **Total** | **481** | **–** | **481** | **–** | **–** | **–** | **–** | **–** | **–** | **481** |
| **Payments per Government** | | | | | | | | | | |
| Trésor Public gabonais | – | – | – | – | – | – | – | – | – | – |
| République du Gabon | 481 | – | 481 | – | – | – | – | – | – | 481 |
| Ville de Libreville | – | – | – | – | – | – | – | – | – | – |
| Ville de Port-Gentil | – | – | – | – | – | – | – | – | – | – |
| **Total** | **481** | **–** | **481** | **–** | **–** | **–** | **–** | **–** | **–** | **481** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Gabon (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Baudroie-Mérou CEPP | 45,334[a] | 11,974 | 57,308 | – | 973 | 60,000 | – | – | – | 118,281 |
| Concessions (périmètre Convention d'Etablissement) | – | 2,139 | 2,139 | – | 2,482 | – | – | 11,320[b] | – | 15,941 |
| Concession Anguille | – | 38,128 | 38,128 | – | – | – | – | – | – | 38,128 |
| Concession Grondin | – | 416 | 416 | – | – | – | – | – | – | 416 |
| Concession Torpille | – | 38,604 | 38,604 | – | – | – | – | – | – | 38,604 |
| Hylia II CEPP | – | 22 | 22 | – | – | – | – | – | – | 22 |
| Non-attributable | – | – | – | – | – | – | 81,259 | – | – | 81,259 |
| **Total** | **45,334** | **91,283** | **136,617** | **–** | **3,455** | **60,000** | **81,259** | **11,320** | **–** | **292,651** |
| **Payments per Government** | | | | | | | | | | |
| Trésor Public gabonais | – | 91,283 | 91,283 | – | 3,448 | 60,000 | – | – | – | 154,731 |
| République du Gabon | 45,334[a] | – | 45,334 | – | – | – | 81,259 | 5,786 | – | 132,379 |
| Ville de Libreville | – | – | – | – | – | – | – | 564 | – | 564 |
| Ville de Port-Gentil | – | – | – | – | 7 | – | – | 4,970 | – | 4,977 |
| **Total** | **45,334** | **91,283** | **136,617** | **–** | **3,455** | **60,000** | **81,259** | **11,320** | **–** | **292,651** |

(a) Corresponds to the valuation of 481 kboe at the official selling price and applying the fiscal terms of the profit sharing agreements.
(b) Financing of projects (infrastructure, education, health) under joint control of the State and TotalEnergies within the framework of the Provision pour Investissements Diversifiés (PID - contribution to diversified investments) and of the Provision pour Investissements dans les Hydrocarbures (PIH - contribution to investments in hydrocarbons).

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indonesia (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Sebuku PSC | 5,887 | – | 5,887 | – | – | – | – | – | – | 5,887 |
| **Total** | **5,887** | **–** | **5,887** | **–** | **–** | **–** | **–** | **–** | **–** | **5,887** |
| **Payments per Government** | | | | | | | | | | |
| Directorate General of Taxation, Ministry of Finance | 5,887 | – | 5,887 | – | – | – | – | – | – | 5,887 |
| Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas) | – | – | – | – | – | – | – | – | – | – |
| **Total** | **5,887** | **–** | **5,887** | **–** | **–** | **–** | **–** | **–** | **–** | **5,887** |

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indonesia (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Sebuku PSC | – | – | – | – | – | – | – | – | 145 | 145 |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **145** | **145** |
| **Payments per Government** | | | | | | | | | | |
| Directorate General of Taxation, Ministry of Finance | – | – | – | – | – | – | – | – | – | – |
| Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas) | – | – | – | – | – | – | – | – | 145 | 145 |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **145** | **145** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indonesia (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Sebuku PSC | 5,887 | – | 5,887 | – | – | – | – | – | 5,645[(a)] | 11,532 |
| **Total** | **5,887** | **–** | **5,887** | **–** | **–** | **–** | **–** | **–** | **5,645** | **11,532** |
| **Payments per Government** | | | | | | | | | | |
| Directorate General of Taxation, Ministry of Finance | 5,887 | – | 5,887 | – | – | – | – | – | – | 5,887 |
| Satuan Khusus Kegiatan Usaha Hulu Minyak dan Gas Bumi (SKK Migas) | – | – | – | – | – | – | – | – | 5,645[(a)] | 5,645 |
| **Total** | **5,887** | **–** | **5,887** | **–** | **–** | **–** | **–** | **–** | **5,645** | **11,532** |

(a) Corresponds to the valuation at net-back price of 145 kboe for production entitlements.

TotalEnergies

**Iraq (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Halfaya | *4,999* | – | 4,999 | – | – | – | – | – | – | 4,999 |
| Sarsang | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***4,999*** | **–** | **4,999** | **–** | **–** | **–** | **–** | **–** | **–** | **4,999** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Natural Resources, Erbil, Kurdistan region of Iraq | – | – | – | – | – | – | – | – | – | – |
| Ministry of Finance, General Commission of Taxation | *4,999* | – | 4,999 | – | – | – | – | – | – | 4,999 |
| **Total** | ***4,999*** | **–** | **4,999** | **–** | **–** | **–** | **–** | **–** | **–** | **4,999** |

**Iraq (paid in kind (kboe))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Halfaya | – | – | – | – | – | – | – | – | – | – |
| Sarsang | – | *187* | 187 | – | – | – | – | – | – | 187 |
| **Total** | **–** | ***187*** | **187** | **–** | **–** | **–** | **–** | **–** | **–** | **187** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Natural Resources, Erbil, Kurdistan region of Iraq | – | *187* | 187 | – | – | – | – | – | – | 187 |
| Ministry of Finance, General Commission of Taxation | – | – | – | – | – | – | – | – | – | – |
| **Total** | **–** | ***187*** | **187** | **–** | **–** | **–** | **–** | **–** | **–** | **187** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**Iraq (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Halfaya | *4,999* | – | 4,999 | – | – | – | – | – | – | 4,999 |
| Sarsang | – | *18,570*(a) | 18,570 | – | – | – | – | – | – | 18,570 |
| **Total** | ***4,999*** | ***18,570*** | **23,569** | **–** | **–** | **–** | **–** | **–** | **–** | **23,569** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Natural Resources, Erbil, Kurdistan region of Iraq | – | *18,570*(a) | 18,570 | – | – | – | – | – | – | 18,570 |
| Ministry of Finance, General Commission of Taxation | *4,999* | – | 4,999 | – | – | – | – | – | – | 4,999 |
| **Total** | ***4,999*** | ***18,570*** | **23,569** | **–** | **–** | **–** | **–** | **–** | **–** | **23,569** |

(a) Corresponds to the valuation of 187 kboe based on market prices for taxes of different natures.

**Italy (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Gorgoglione Unified License | *37,987*(a) | *59,825*(b) | 97,812 | – | 1,492 | – | – | – | – | 99,304 |
| **Total** | ***37,987*** | ***59,825*** | **97,812** | **–** | **1,492** | **–** | **–** | **–** | **–** | **99,304** |
| **Payments per Government** | | | | | | | | | | |
| Regione Basilicata | – | *46,286*(b) | 46,286 | – | 764 | – | – | – | – | 47,050 |
| Agenzia delle Entrate | *37,987*(a) | – | 37,987 | – | – | – | – | – | – | 37,987 |
| Comunità Montana Collina Materana | – | – | – | – | 158 | – | – | – | – | 158 |
| Comune Corleto Perticara | | *2,905* | 2,905 | – | 236 | – | – | – | – | 3,141 |
| Comune Gorgoglione | – | *451* | 451 | – | – | – | – | – | – | 451 |
| Ministero dell'Economia e delle Finanze | – | – | – | – | 334 | – | – | – | – | 334 |
| Tesoreria dello Stato | – | *10,183* | 10,183 | – | – | – | – | – | – | 10,183 |
| **Total** | ***37,987*** | ***59,825*** | **97,812** | **–** | **1,492** | **–** | **–** | **–** | **–** | **99,304** |

(a) Includes 26 M$ of windfall taxes (Extra Profit Contribution).
(b) Includes payment for the domestic gas supply obligation.

**Kazakhstan (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Dunga | *19,921* | – | 19,921 | – | 67 | 1,800 | – | – | 25,763 | 47,551 |
| Kashagan | – | *77,915* | 77,915 | – | – | 504 | – | 3,165 | – | 81,584 |
| **Total** | ***19,921*** | ***77,915*** | **97,836** | **–** | **67** | **2,304** | **–** | **3,165** | **25,763** | **129,135** |
| **Payments per Government** | | | | | | | | | | |
| Atyrau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | 614 | – | 614 |
| Mangistau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | 2,551 | – | 2,551 |
| Ministry of Finance | *19,921* | *77,915* | 97,836 | – | 67 | 2,304 | – | – | 25,763 | 125,970 |
| Ministry of Energy | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***19,921*** | ***77,915*** | **97,836** | **–** | **67** | **2,304** | **–** | **3,165** | **25,763** | **129,135** |

**Kazakhstan (paid in kind (kboe))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Dunga | – | – | – | – | – | – | – | – | – | – |
| Kashagan | – | – | – | – | – | – | – | – | 375 | 375 |
| **Total** | – | – | **–** | **–** | **–** | **–** | **–** | **–** | **375** | **375** |
| **Payments per Government** | | | | | | | | | | |
| Atyrau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | – | – | – |
| Mangistau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | – | – | – |
| Ministry of Finance | – | – | – | – | – | – | – | – | – | – |
| Ministry of Energy | – | – | – | – | – | – | – | – | 375 | 375 |
| **Total** | – | – | **–** | **–** | **–** | **–** | **–** | **–** | **375** | **375** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**Kazakhstan (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Dunga | *19,921* | – | 19,921 | – | 67 | 1,800 | – | – | 25,763 | 47,551 |
| Kashagan | – | *77,915* | 77,915 | – | – | 504 | – | 3,165 | 26,682[(a)] | 108,266 |
| **Total** | ***19,921*** | ***77,915*** | **97,836** | **–** | **67** | **2,304** | **–** | **3,165** | **52,445** | **155,817** |
| **Payments per Government** | | | | | | | | | | |
| Atyrau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | 614 | – | 614 |
| Mangistau region c/o North Caspian Operating Company b.v. | – | – | – | – | – | – | – | 2,551 | – | 2,551 |
| Ministry of Finance | *19,921* | *77,915* | 97,836 | – | 67 | 2,304 | – | – | 25,763 | 125,970 |
| Ministry of Energy | – | – | – | – | – | – | – | – | 26,682[(a)] | 26,682 |
| **Total** | ***19,921*** | ***77,915*** | **97,836** | **–** | **67** | **2,304** | **–** | **3,165** | **52,445** | **155,817** |

(a) Corresponds to the valuation of 375 kboe at average net-back prices for production entitlements.

**Kenya (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| 10BA | – | – | – | – | 77 | – | – | – | – | 77 |
| L11A | – | – | – | – | 23 | – | – | – | – | 23 |
| L11B | – | – | – | – | 23 | – | – | – | – | 23 |
| L12 | – | – | – | – | 23 | – | – | – | – | 23 |
| **Total** | – | – | **–** | **–** | **146** | **–** | **–** | **–** | **–** | **146** |
| **Payments per Government** | | | | | | | | | | |
| Kenya Ministry of Energy | – | – | – | – | 146 | – | – | – | – | 146 |
| **Total** | – | – | **–** | **–** | **146** | **–** | **–** | **–** | **–** | **146** |

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lebanon (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 4 | – | – | – | – | 53 | – | – | – | – | 53 |
| Block 9 | – | – | – | – | 53 | – | – | – | – | 53 |
| **Total** | **–** | **–** | **–** | **–** | **106** | **–** | **–** | **–** | **–** | **106** |
| **Payments per Government** | | | | | | | | | | |
| Lebanese Petroleum Administration (LPA) | – | – | – | – | 106 | – | – | – | – | 106 |
| **Total** | **–** | **–** | **–** | **–** | **106** | **–** | **–** | **–** | **–** | **106** |
| **Libya (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Areas 15, 16 & 32 (Al Jurf) | – | – | – | – | – | – | – | – | – | – |
| Areas 129 & 130 | – | – | – | – | – | – | – | – | – | – |
| Areas 130 & 131 | – | – | – | – | – | – | – | – | – | – |
| Waha | – | *2,173,389* | 2,173,389 | – | 132 | 22,500 | – | 15,000 | – | 2,211,021 |
| **Total** | **–** | ***2,173,389*** | **2,173,389** | **–** | **132** | **22,500** | **–** | **15,000** | **–** | **2,211,021** |
| **Payments per Government** | | | | | | | | | | |
| National Oil Corporation | – | – | – | – | – | 22,500 | – | 15,000 | – | 37,500 |
| Ministry of Finance c/o National Oil Corporation | – | – | – | – | – | – | – | – | – | – |
| Ministry of Oil and Gas | – | *2,173,389* | 2,173,389 | – | 132 | – | – | – | – | 2,173,521 |
| **Total** | **–** | ***2,173,389*** | **2,173,389** | **–** | **132** | **22,500** | **–** | **15,000** | **–** | **2,211,021** |
| **Libya (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Areas 15, 16 & 32 (Al Jurf) | *1,748* | *189* | 1,937 | – | – | – | – | – | 1,997 | 3,934 |
| Areas 129 & 130 | *3,424* | *324* | 3,748 | – | – | – | – | – | 10,391 | 14,139 |
| Areas 130 & 131 | *1,066* | *108* | 1,174 | – | – | – | – | – | 3,981 | 5,156 |
| Waha | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***6,238*** | ***621*** | **6,859** | **–** | **–** | **–** | **–** | **–** | **16,369** | **23,228** |
| **Payments per Government** | | | | | | | | | | |
| National Oil Corporation | – | – | – | – | – | – | – | – | 16,369 | 16,369 |
| Ministry of Finance c/o National Oil Corporation | *6,238* | *621* | 6,859 | – | – | – | – | – | – | 6,859 |
| Ministry of Oil and Gas | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***6,238*** | ***621*** | **6,859** | **–** | **–** | **–** | **–** | **–** | **16,369** | **23,228** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Libya (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Areas 15, 16 & 32 (Al Jurf) | *137,503[a]* | *14,885[b]* | 152,388 | – | – | – | – | – | 157,131[c] | 309,519 |
| Areas 129 & 130 | *347,618[d]* | *32,879[e]* | 380,497 | – | – | – | – | – | 1,054,899[f] | 1,435,396 |
| Areas 130 & 131 | *108,931[g]* | *11,083[h]* | 120,014 | – | – | – | – | – | 406,821[i] | 526,835 |
| Waha | – | *2,173,389[j]* | 2,173,389 | – | 132 | 22,500 | – | 15,000 | – | 2,211,021 |
| **Total** | ***594,052*** | ***2,232,236*** | **2,826,288** | **–** | **132** | **22,500** | **–** | **15,000** | **1,618,851** | **4,482,771** |
| **Payments per Government** | | | | | | | | | | |
| National Oil Corporation | – | – | – | – | – | 22,500 | – | 15,000 | 1,618,851[k] | 1,656,351 |
| Ministry of Finance c/o National Oil Corporation | *594,052[l]* | *58,847[m]* | 652,899 | – | – | – | – | – | – | 652,899 |
| Ministry of Oil and Gas | – | *2,173,389[j]* | 2,173,389 | – | 132 | – | – | – | – | 2,173,521 |
| **Total** | ***594,052*** | ***2,232,236*** | **2,826,288** | **–** | **132** | **22,500** | **–** | **15,000** | **1,618,851** | **4,482,771** |

(a) Corresponds to the valuation of 1,748 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 189 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(c) Corresponds to the valuation of 1,997 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(d) Corresponds to the valuation of 3,424 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(e) Corresponds to the valuation of 324 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 10,391 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(g) Corresponds to the valuation of 1,066 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(h) Corresponds to the valuation of 108 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(i) Corresponds to the valuation of 3,981 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(j) Includes 890 M$ related to the period from october 2020 to november 2021, which were suspended following instructions of competent authorities.
(k) Corresponds to the valuation of 16,369 kboe at official selling prices and applying the profit sharing agreements, including the share of National Oil Corporation, as partner.
(l) Corresponds to the valuation of 6,238 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.
(m) Corresponds to the valuation of 621 kboe at official selling prices and applying the fiscal terms of the profit sharing agreements.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Malaysia (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| DW2E | – | – | – | – | 5,009 | – | – | – | – | 5,009 |
| **Total** | **–** | **–** | **–** | **–** | **5,009** | **–** | **–** | **–** | **–** | **5,009** |
| **Payments per Government** | | | | | | | | | | |
| Petronas | – | – | – | – | 5,009 | – | – | – | – | 5,009 |
| **Total** | **–** | **–** | **–** | **–** | **5,009** | **–** | **–** | **–** | **–** | **5,009** |
| **Mauritania (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block C15 | – | – | – | – | 689 | – | – | – | – | 689 |
| Block C31 | – | – | – | – | 606 | – | – | – | – | 606 |
| **Total** | **–** | **–** | **–** | **–** | **1,295** | **–** | **–** | **–** | **–** | **1,295** |
| **Payments per Government** | | | | | | | | | | |
| Trésor Public de Mauritanie | – | – | – | – | 395 | – | – | – | – | 395 |
| SMHPM (Société Mauritanienne des Hydrocarbures et du Patrimoine Minier) | – | – | – | – | 500 | – | – | – | – | 500 |
| Commission Environnementale | – | – | – | – | 400 | – | – | – | – | 400 |
| **Total** | **–** | **–** | **–** | **–** | **1,295** | **–** | **–** | **–** | **–** | **1,295** |
| **Mexico (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| AS-CS-06 (B33) | – | *244* | 244 | – | 187 | – | – | – | – | 431 |
| Block 15 | – | *582* | 582 | – | 550 | – | – | – | – | 1,132 |
| G-CS-02 (B32) | – | *615* | 615 | – | 472 | – | – | – | – | 1,087 |
| G-CS-03 (B34) | – | *242* | 242 | – | 185 | – | – | – | – | 427 |
| Perdido Block 2 | – | – | – | – | 100 | – | – | – | – | 100 |
| Salina 1 | – | *2,704* | 2,704 | – | 4,369 | – | – | – | – | 7,073 |
| Salina 3 | – | *102* | 102 | – | 13,425 | – | – | – | – | 13,527 |
| **Total** | **–** | ***4,489*** | **4,489** | **–** | **19,288** | **–** | **–** | **–** | **–** | **23,777** |
| **Payments per Government** | | | | | | | | | | |
| Servicio de Administracion Tributaria | – | *4,489* | 4,489 | – | 100 | – | – | – | – | 4,589 |
| Fondo Mexicano del Petroleo | – | – | – | – | 19,188 | – | – | – | – | 19,188 |
| **Total** | **–** | ***4,489*** | **4,489** | **–** | **19,288** | **–** | **–** | **–** | **–** | **23,777** |

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mozambique (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Area 1 Golfino-Atum | – | – | – | – | 1,060 | – | – | – | – | 1,060 |
| **Total** | **–** | **–** | **–** | **–** | **1,060** | **–** | **–** | **–** | **–** | **1,060** |
| **Payments per Government** | | | | | | | | | | |
| Instituto Nacional de Petroleo | – | – | – | – | 1,060 | – | – | – | – | 1,060 |
| **Total** | **–** | **–** | **–** | **–** | **1,060** | **–** | **–** | **–** | **–** | **1,060** |
| **Myanmar (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Blocks M5 and M6 | – | *19,406* | 19,406 | – | – | – | – | – | 61,948 | 81,354 |
| Non-attributable | *16,000* | – | 16,000 | – | – | – | – | – | – | 16,000 |
| **Total** | ***16,000*** | ***19,406*** | **35,406** | **–** | **–** | **–** | **–** | **–** | **61,948** | **97,354** |
| **Payments per Government** | | | | | | | | | | |
| Myanmar Ministry of Finance | *16,000* | *19,406* | 35,406 | – | – | – | – | – | – | 35,406 |
| Myanmar Oil and Gas Enterprise | – | – | – | – | – | – | – | – | 61,948 | 61,948 |
| **Total** | ***16,000*** | ***19,406*** | **35,406** | **–** | **–** | **–** | **–** | **–** | **61,948** | **97,354** |
| **Myanmar (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Blocks M5 and M6 | – | – | – | – | – | – | – | – | 1,160 | 1,160 |
| Non-attributable | – | – | – | – | – | – | – | – | – | – |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **1,160** | **1,160** |
| **Payments per Government** | | | | | | | | | | |
| Myanmar Ministry of Finance | – | – | – | – | – | – | – | – | – | – |
| Myanmar Oil and Gas Enterprise | – | – | – | – | – | – | – | – | 1,160 | 1,160 |
| **Total** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **–** | **1,160** | **1,160** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Myanmar[(a)] (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Blocks M5 and M6 | – | *19,406* | 19,406 | – | – | – | – | – | 100,045[(b)] | 119,451 |
| Non-attributable | *16,000* | – | 16,000 | – | – | – | – | – | – | 16,000 |
| **Total** | ***16,000*** | ***19,406*** | **35,406** | **–** | **–** | **–** | **–** | **–** | **100,045** | **135,451** |
| **Payments per Government** | | | | | | | | | | |
| Myanmar Ministry of Finance | *16,000* | *19,406* | 35,406 | – | – | – | – | – | – | 35,406 |
| Myanmar Oil and Gas Enterprise | – | – | – | – | – | – | – | – | 100,045[(b)] | 100,045 |
| **Total** | ***16,000*** | ***19,406*** | **35,406** | **–** | **–** | **–** | **–** | **–** | **100,045** | **135,451** |

(a) TotalEnergies announced on July 20, 2022 the completion of its withdrawal from Myanmar.
(b) Includes the valuation at a net-back price for 38,097 k$ of 1,160 kboe for production entitlements dedicated to domestic delivery obligations.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Netherlands (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Offshore Blocks | – | – | – | – | 623 | – | – | – | – | 623 |
| Non-attributable | *238,271* | – | 238,271 | – | – | – | – | – | – | 238,271 |
| **Total** | ***238,271*** | **–** | **238,271** | **–** | **623** | **–** | **–** | **–** | **–** | **238,894** |
| **Payments per Government** | | | | | | | | | | |
| Belastingdienst Nederland | *238,271* | – | 238,271 | – | 623 | – | – | – | – | 238,894 |
| **Total** | ***238,271*** | **–** | **238,271** | **–** | **623** | **–** | **–** | **–** | **–** | **238,894** |
| **Nigeria (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| OML 58 (joint venture with NNPC, operated) | *13,637* | – | 13,637 | – | – | – | – | – | – | 13,637 |
| OML 99 (joint venture with NNPC, operated) | *46,694* | – | 46,694 | – | – | – | – | – | – | 46,694 |
| OML 100 (joint venture with NNPC, operated) | *35,047* | – | 35,047 | – | – | – | – | – | – | 35,047 |
| OML 102 (joint venture with NNPC, operated) | *136,269* | – | 136,269 | – | – | – | – | – | – | 136,269 |
| OML 118 (Bonga) | *4,419* | – | 4,419 | – | 1,401 | – | – | 2,588 | – | 8,408 |
| OML 130 PSA (Akpo & Egina) | *416,248* | *178,030* | 594,278 | – | 1,731 | – | – | 10,464 | – | 606,473 |
| OML 138 (Usan) | *3,010* | – | 3,010 | – | 1,558 | – | – | 766 | – | 5,334 |
| Joint ventures with NNPC, operated - Non-attributable | – | – | – | – | 6,182 | – | – | 15,385 | – | 21,567 |
| Joint ventures with NNPC, non operated - Non-attributable | *66,180* | – | 66,180 | – | 1,455 | – | – | 5,843 | – | 73,478 |
| Non-attributable | *110,895* | – | 110,895 | – | – | – | – | – | – | 110,895 |
| **Total** | ***832,399*** | ***178,030*** | **1,010,429** | **–** | **12,327** | **–** | **–** | **35,046** | **–** | **1,057,802** |
| **Payments per Government** | | | | | | | | | | |
| Federal Inland Revenue Service | *534,572* | – | 534,572 | – | – | – | – | – | – | 534,572 |
| Niger Delta Development Commission | – | – | – | – | – | – | – | 35,046 | – | 35,046 |
| Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria | – | – | – | – | 1,206 | – | – | – | – | 1,206 |
| Nigerian National Petroleum Corporation | – | – | – | – | – | – | – | – | – | – |
| Nigerian Upstream Petroleum Regulatory Commission | *297,827* | *178,030* | 475,857 | – | 11,121 | – | – | – | – | 486,978 |
| Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd | – | – | – | – | – | – | – | – | – | – |
| Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***832,399*** | ***178,030*** | **1,010,429** | **–** | **12,327** | **–** | **–** | **35,046** | **–** | **1,057,802** |

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nigeria (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| OML58 (joint venture with NNPC, operated) | – | – | – | – | – | – | – | – | – | – |
| OML99 (joint venture with NNPC, operated) | – | – | – | – | – | – | – | – | – | – |
| OML100 (joint venture with NNPC, operated) | – | – | – | – | – | – | – | – | – | – |
| OML102 (joint venture with NNPC, operated) | – | – | – | – | – | – | – | – | – | – |
| OML118 (Bonga) | *615* | *563* | 1,178 | – | 0 | – | – | – | 731 | 1,909 |
| OML130 PSA (Akpo & Egina) | – | – | – | – | – | – | – | – | – | – |
| OML138 (Usan) | – | *420* | 420 | – | 1 | – | – | – | 452 | 873 |
| Joint ventures with NNPC, operated – Non–attributable | – | – | – | – | – | – | – | – | – | – |
| Joint ventures with NNPC, non operated – Non–attributable | – | – | – | – | – | – | – | – | – | – |
| Non–attributable | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***615*** | ***984*** | **1,599** | **–** | **1** | **–** | **–** | **–** | **1,183** | **2,783** |
| **Payments per Government** | | | | | | | | | | |
| Federal Inland Revenue Service | – | – | – | – | – | – | – | – | – | – |
| Niger Delta Development Commission | – | – | – | – | – | – | – | – | – | – |
| Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria | – | – | – | – | – | – | – | – | – | – |
| Nigerian National Petroleum Corporation | – | – | – | – | – | – | – | – | 1,183 | 1,183 |
| Nigerian Upstream Petroleum Regulatory Commission | – | – | – | – | – | – | – | – | – | – |
| Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd | – | *984* | 984 | – | 1 | – | – | – | – | 985 |
| Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation | *615* | – | 615 | – | – | – | – | – | – | 615 |
| **Total** | ***615*** | ***984*** | **1,599** | **–** | **1** | **–** | **–** | **–** | **1,183** | **2,783** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

**Nigeria (all payments (kusd) - including valuation of in-kind payments)**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| OML58 (joint venture with NNPC, operated) | *13,637* | – | 13,637 | – | – | – | – | – | – | 13,637 |
| OML99 (joint venture with NNPC, operated) | *46,694* | – | 46,694 | – | – | – | – | – | – | 46,694 |
| OML100 (joint venture with NNPC, operated) | *35,047* | – | 35,047 | – | – | – | – | – | – | 35,047 |
| OML102 (joint venture with NNPC, operated) | *136,269* | – | 136,269 | – | – | – | – | – | – | 136,269 |
| OML118 (Bonga) | *65,400*[(a)] | *57,641*[(b)] | 123,041 | – | 1,413[(c)] | – | – | 2,588 | 72,505[(d)] | 199,547 |
| OML130 PSA (Akpo & Egina) | *416,248* | *178,030* | 594,278 | – | 1,731 | – | – | 10,464 | – | 606,473 |
| OML138 (Usan) | *3,010* | *42,685*[(e)] | 45,695 | – | 1,694[(f)] | – | – | 766 | 45,867[(g)] | 94,022 |
| Joint ventures with NNPC, operated – Non–attributable | – | – | – | – | 6,182 | – | – | 15,385 | – | 21,567 |
| Joint ventures with NNPC, non operated – Non–attributable | *66,180* | – | 66,180 | – | 1,455 | – | – | 5,843 | – | 73,478 |
| Non–attributable | *110,895*[(h)] | – | 110,895 | – | – | – | – | – | – | 110,895 |
| **Total** | ***893,380*** | ***278,356*** | **1,171,736** | **–** | **12,475** | **–** | **–** | **35,046** | **118,372** | **1,337,629** |
| **Payments per Government** | | | | | | | | | | |
| Federal Inland Revenue Service | *534,572* | – | 534,572 | – | – | – | – | – | – | 534,572 |
| Niger Delta Development Commission | – | – | – | – | – | – | – | 35,046 | – | 35,046 |
| Nigerian Maritime Administration & Safety Agency, Federal Government of Nigeria | – | – | – | – | 1,206 | – | – | – | – | 1,206 |
| Nigerian National Petroleum Corporation | – | – | – | – | – | – | – | – | 118,372[(i)] | 118,372 |
| Nigerian Upstream Petroleum Regulatory Commission | *297,827* | *178,030* | 475,857 | – | 11,121 | – | – | – | – | 486,978 |
| Nigerian Upstream Petroleum Regulatory Commission c/o Nigerian National Petroleum Corporation Ltd | – | *100,326*[(j)] | 100,326 | – | 148[(k)] | – | – | – | – | 100,474 |
| Federal Inland Revenue Service c/o Nigerian National Petroleum Corporation | *60,981*[(l)] | – | 60,981 | – | – | – | – | – | – | 60,981 |
| **Total** | ***893,380*** | ***278,356*** | **1,171,736** | **–** | **12,475** | **–** | **–** | **35,046** | **118,372** | **1,337,629** |

(a) Includes the valuation for 60,981 k$ of 615 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation for 563 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(c) Includes the valuation for 12 k$ of 122 boe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(d) Corresponds to the valuation for 731 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(e) Corresponds to the valuation for 420 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(f) Includes the valuation for 136 k$ of 1 kboe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(g) Corresponds to the valuation for 452 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(h) This amount includes the tax implications of the provisions of the Modified Carry Agreement (MCA). Under the MCA, TotalEnergies EP Nigeria is entitled to recover 85% of the Carry Capital Cost through claims of capital allowance, described in the MCA as "Carry Tax Relief". The balance of 15% is to be recovered from NNPC's share of crude oil produced.
(i) Corresponds to the valuation for 1,183 kboe at average entitlement price and applying the terms of the profit sharing agreements.
(j) Corresponds to the valuation for 984 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.
(k) Corresponds to the valuation for 1 kboe at average entitlement price of the period of barrels allocation and applying the terms of the profits sharing agreements.
(l) Corresponds to the valuation for 615 kboe at average entitlement price and applying the fiscal terms of the profit sharing agreements.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Norway (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Åsgard area | – | *6,517* | 6,517 | – | 696 | – | – | – | – | 7,213 |
| Ekofisk area | – | *24,757* | 24,757 | – | 2,572 | – | – | – | – | 27,329 |
| Heimdal area | – | *437* | 437 | – | 20 | – | – | – | – | 457 |
| Johan Sverdrup | – | *190* | 190 | – | 54 | – | – | – | – | 244 |
| Oseberg area | – | *12,715* | 12,715 | – | 711 | – | – | – | – | 13,426 |
| PL018C | – | – | – | – | 23 | – | – | – | – | 23 |
| Snøhvit area | – | *10,193* | 10,193 | – | 153 | – | – | – | – | 10,346 |
| Troll area | – | *2,249* | 2,249 | – | 188 | – | – | – | – | 2,437 |
| Non-attributable | *5,344,581* | – | 5,344,581 | – | – | – | – | – | – | 5,344,581 |
| **Total** | ***5,344,581*** | ***57,058*** | **5,401,639** | **–** | **4,417** | **–** | **–** | **–** | **–** | **5,406,056** |
| **Payments per Government** | | | | | | | | | | |
| Norwegian Tax Administration | *5,344,581* | *57,058* | 5,401,639 | – | – | – | – | – | – | 5,401,639 |
| Norwegian Petroleum Directorate | – | – | – | – | 4,417 | – | – | – | – | 4,417 |
| **Total** | ***5,344,581*** | ***57,058*** | **5,401,639** | **–** | **4,417** | **–** | **–** | **–** | **–** | **5,406,056** |
| **Oman (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 6 | – | *557,290* | 557,290 | – | – | – | – | – | – | 557,290 |
| Block 12 | – | – | – | – | 200 | – | – | – | – | 200 |
| **Total** | **–** | ***557,290*** | **557,290** | **–** | **200** | **–** | **–** | **–** | **–** | **557,490** |
| **Payments per Government** | | | | | | | | | | |
| Oman Ministry of Finance | – | *557,290* | 557,290 | – | 200 | – | – | – | – | 557,490 |
| **Total** | **–** | ***557,290*** | **557,290** | **–** | **200** | **–** | **–** | **–** | **–** | **557,490** |
| **Papua New Guinea (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| PPL-576 | – | – | – | – | 11 | – | – | – | – | 11 |
| PRL-15 | – | – | – | – | 915 | – | – | – | – | 915 |
| **Total** | **–** | **–** | **–** | **–** | **926** | **–** | **–** | **–** | **–** | **926** |
| **Payments per Government** | | | | | | | | | | |
| Conservation & Environment Protection Authority | – | – | – | – | 926 | – | – | – | – | 926 |
| **Total** | **–** | **–** | **–** | **–** | **926** | **–** | **–** | **–** | **–** | **926** |
| **Qatar (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Al Khalij | *32,407* | *26,629* | 59,036 | – | – | – | – | – | – | 59,036 |
| Dolphin | – | – | – | – | – | – | – | – | – | – |
| North Field East | – | – | – | – | – | 25,003 | – | – | – | 25,003 |
| **Total** | ***32,407*** | ***26,629*** | **59,036** | **–** | **–** | **25,003** | **–** | **–** | **–** | **84,039** |
| **Payments per Government** | | | | | | | | | | |
| Qatar Energy | – | – | – | – | – | 25,003 | – | – | – | 25,003 |
| Qatar Ministry of Finance | *32,407* | *26,629* | 59,036 | – | – | – | – | – | – | 59,036 |
| **Total** | ***32,407*** | ***26,629*** | **59,036** | **–** | **–** | **25,003** | **–** | **–** | **–** | **84,039** |

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Qatar (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Al Khalij | – | – | – | – | – | – | – | – | – | – |
| Dolphin | 3,294 | – | 3,294 | – | – | – | – | – | 31,469 | 34,763 |
| North Field East | – | – | – | – | – | – | – | – | – | – |
| **Total** | **3,294** | **–** | **3,294** | **–** | **–** | **–** | **–** | **–** | **31,469** | **34,763** |
| **Payments per Government** | | | | | | | | | | |
| Qatar Energy | – | – | – | – | – | – | – | – | 31,469 | 31,469 |
| Qatar Ministry of Finance | 3,294 | – | 3,294 | – | – | – | – | – | – | 3,294 |
| **Total** | **3,294** | **–** | **3,294** | **–** | **–** | **–** | **–** | **–** | **31,469** | **34,763** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Qatar (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Al Khalij | 32,407 | 26,629 | 59,036 | – | – | – | – | – | – | 59,036 |
| Dolphin | 97,773[a] | – | 97,773 | – | – | – | – | – | 901,468[b] | 999,241 |
| North Field East | – | – | – | – | – | 25,003 | – | – | – | 25,003 |
| **Total** | **130,180** | **26,629** | **156,809** | **–** | **–** | **25,003** | **–** | **–** | **901,468** | **1,083,280** |
| **Payments per Government** | | | | | | | | | | |
| Qatar Energy | – | – | – | – | – | 25,003 | – | – | 901,468[b] | 926,471 |
| Qatar Ministry of Finance | 130,180[c] | 26,629 | 156,809 | – | – | – | – | – | – | 156,809 |
| **Total** | **130,180** | **26,629** | **156,809** | **–** | **–** | **25,003** | **–** | **–** | **901,468** | **1,083,280** |

(a) Corresponds to the valuation of 3,294 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 31,469 kboe based on the average price of production entitlements.
(c) Includes the valuation for 97,773 k$ of 3,294 kboe based on the average price of production entitlements and as per the fiscal terms of the profit sharing agreements.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Republic of the Congo (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| CPP Andromède (MTPS) | – | – | – | – | 305 | – | – | – | – | 305 |
| CPP Cassiopée (MTPS) | – | – | – | – | 166 | – | – | – | – | 166 |
| CPP Haute Mer – Zone A | – | 32,899 | 32,899 | – | 2,449 | 6,294 | – | – | – | 41,642 |
| CPP Haute Mer – Zone B | – | 5,141 | 5,141 | – | 520 | – | – | – | – | 5,661 |
| CPP Haute Mer – Zone D | – | – | – | – | 20,980 | 12,588 | – | 1,437 | – | 35,005 |
| CPP Persée (MTPS) | – | – | – | – | 60 | – | – | – | – | 60 |
| CPP Pointe Noire Grands Fonds (PNGF) | – | – | – | – | 2,590 | – | – | – | – | 2,590 |
| Kombi, Likalala & Libondo | – | – | – | – | 30,121 | – | – | – | – | 30,121 |
| Lianzi | 1,167 | – | 1,167 | – | 59 | – | – | – | – | 1,226 |
| Madingo | (1,237) | (590) | (1,827) | – | (5) | – | – | – | – | (1,832) |
| Marine XX | – | – | – | – | 92 | – | – | – | – | 92 |
| Nanga | – | – | – | – | 230 | – | – | – | – | 230 |
| Pegase Nord (ex MTPS) | – | – | – | – | 98 | – | – | – | – | 98 |
| **Total** | **(70)** | **37,450** | **37,380** | **–** | **57,665** | **18,882** | **–** | **1,437** | **–** | **115,364** |
| **Payments per Government** | | | | | | | | | | |
| Ministère des hydrocarbures | (1,237) | (590) | (1,827) | – | 641 | – | – | 1,437 | – | 251 |
| Trésor Public | – | 38,040 | 38,040 | – | 57,024 | 18,882 | – | – | – | 113,946 |
| Société Nationale des Pétroles Congolais | 1,167 | – | 1,167 | – | – | – | – | – | – | 1,167 |
| **Total** | **(70)** | **37,450** | **37,380** | **–** | **57,665** | **18,882** | **–** | **1,437** | **–** | **115,364** |

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Republic of the Congo (paid in kind (kboe))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| CPP Andromède (MTPS) | – | – | – | – | – | – | – | – | – | – |
| CPP Cassiopée (MTPS) | – | – | – | – | – | – | – | – | – | – |
| CPP Haute Mer – Zone A | *454* | – | 454 | – | – | – | – | – | – | 454 |
| CPP Haute Mer – Zone B | *173* | – | 173 | – | – | – | – | – | – | 173 |
| CPP Haute Mer – Zone D | *2,661* | *2,836* | 5,497 | – | – | – | – | – | – | 5,497 |
| CPP Persée (MTPS) | – | – | – | – | – | – | – | – | – | – |
| CPP Pointe Noire Grands Fonds (PNGF) | *840* | *255* | 1,096 | – | – | – | – | – | – | 1,096 |
| Kombi, Likalala & Libondo | – | – | – | – | – | – | – | – | – | – |
| Lianzi | – | – | – | – | – | – | – | – | 9 | 9 |
| Madingo | – | – | – | – | – | – | – | – | – | – |
| Marine XX | – | – | – | – | – | – | – | – | – | – |
| Nanga | – | – | – | – | – | – | – | – | – | – |
| Pegase Nord (ex MTPS) | – | – | – | – | – | – | – | – | – | – |
| **Total** | ***4,128*** | ***3,091*** | **7,220** | **–** | **–** | **–** | **–** | **–** | **9** | **7,228** |
| **Payments per Government** | | | | | | | | | | |
| Ministère des hydrocarbures | *4,128* | *3,091* | 7,220 | – | – | – | – | – | – | 7,220 |
| Trésor Public | – | – | – | – | – | – | – | – | – | – |
| Société Nationale des Pétroles Congolais | – | – | – | – | – | – | – | – | 9 | 9 |
| **Total** | ***4,128*** | ***3,091*** | **7,220** | **–** | **–** | **–** | **–** | **–** | **9** | **7,228** |

In application of the regulation imposing a disclosure of the value of the total Payments, the table presented herebelow shows the sum of payments done in cash and in kind valuated as indicated in the footnotes.

| | Income taxes | Other Taxes | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Republic of the Congo (all payments (kusd) - including valuation of in-kind payments)** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| CPP Andromède (MTPS) | – | – | – | – | 305 | – | – | – | – | 305 |
| CPP Cassiopée (MTPS) | – | – | – | – | 166 | – | – | – | – | 166 |
| CPP Haute Mer – Zone A | *46,173*[(a)] | *32,899* | 79,072 | – | 2,449 | 6,294 | – | – | – | 87,815 |
| CPP Haute Mer – Zone B | *17,389*[(b)] | *5,141* | 22,530 | – | 520 | – | – | – | – | 23,050 |
| CPP Haute Mer – Zone D | *278,945*[(c)] | *286,502*[(d)] | 565,447 | – | 20,980 | 12,588 | – | 1,437 | – | 600,452 |
| CPP Persée (MTPS) | – | – | – | – | 60 | – | – | – | – | 60 |
| CPP Pointe Noire Grands Fonds (PNGF) | *84,942*[(e)] | *25,766*[(f)] | 110,708 | – | 2,590 | – | – | – | – | 113,298 |
| Kombi, Likalala & Libondo | – | – | – | – | 30,121 | – | – | – | – | 30,121 |
| Lianzi | *1,167* | – | 1,167 | – | 59 | – | – | – | 713[(g)] | 1,939 |
| Madingo | *(1,237)*[(h)] | *(590)*[(i)] | (1,827) | – | (5)[(j)] | – | – | – | – | (1,832) |
| Marine XX | – | – | – | – | 92 | – | – | – | – | 92 |
| Nanga | – | – | – | – | 230 | – | – | – | – | 230 |
| Pegase Nord (ex MTPS) | – | – | – | – | 98 | – | – | – | – | 98 |
| **Total** | ***427,379*** | ***349,718*** | **777,097** | **–** | **57,665** | **18,882** | **–** | **1,437** | **713** | **855,794** |
| **Payments per Government** | | | | | | | | | | |
| Ministère des hydrocarbures | *426,212*[(k)] | *311,678*[(l)] | 737,890 | – | 641 | – | – | 1,437 | – | 739,968 |
| Trésor Public | – | *38,040* | 38,040 | – | 57,024 | 18,882 | – | – | – | 113,946 |
| Société Nationale des Pétroles Congolais | *1,167* | – | 1,167 | – | – | – | – | – | 713[(g)] | 1,880 |
| **Total** | ***427,379*** | ***349,718*** | **777,097** | **–** | **57,665** | **18,882** | **–** | **1,437** | **713** | **855,794** |

(a) Corresponds to the valuation of 454 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(b) Corresponds to the valuation of 173 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(c) Corresponds to the valuation of 2,661 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(d) Corresponds to the valuation of 2,836 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(e) Corresponds to the valuation of 840 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(f) Corresponds to the valuation of 255 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(g) Corresponds to the valuation of 9 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(h) Corresponds to the difference of valorisation between the estimation price in 2021 and the definitive price of 199 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(i) Corresponds to the difference of valorisation between the estimation price in 2021 and the definitive price of 95 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements
(j) Includes -28 k$ corresponding to the difference of the estimated fiscal price in 2021 and the definitive fiscal price which used for the calculation of the fees at end of license.
(k) Includes the valuation for 427,449 k$ of 4,128 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.
(l) Includes the valuation for 312,268 k$ of 3,091 kboe at official fiscal prices and applying the fiscal terms of the profit sharing agreements.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Russia (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Kharyaga[(a)] | *8,139* | *8,475* | 16,614 | – | 85 | – | – | – | 40,282 | 56,981 |
| **Total** | ***8,139*** | ***8,475*** | **16,614** | **–** | **85** | **–** | **–** | **–** | **40,282** | **56,981** |
| **Payments per Government** | | | | | | | | | | |
| Nenets Tax Inspection | *8,139* | *8,475* | 16,614 | – | 85 | – | – | – | – | 16,699 |
| Ministry of Energy | – | – | – | – | – | – | – | – | 40,282 | 40,282 |
| **Total** | ***8,139*** | ***8,475*** | **16,614** | **–** | **85** | **–** | **–** | **–** | **40,282** | **56,981** |

(a) TotalEnergies has completed the sale of its minority interest (20%) in the Kharyaga license on August 3, 2022.

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **São Tomé and Principe (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Block 1 | – | – | – | – | 605 | – | – | – | – | 605 |
| **Total** | **–** | **–** | **–** | **–** | **605** | **–** | **–** | **–** | **–** | **605** |
| **Payments per Government** | | | | | | | | | | |
| Agenc. Nac. Petroleo de Sao Tome e Principe c/o Alliance Française | – | – | – | – | 461 | – | – | – | – | 461 |
| Agenc. Nac. Petroleo de Sao Tome e Principe c/o Universidade de STP | – | – | – | – | 144 | – | – | – | – | 144 |
| **Total** | **–** | **–** | **–** | **–** | **605** | **–** | **–** | **–** | **–** | **605** |
| **Senegal (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| UDO | – | – | – | – | 273 | – | – | – | – | 273 |
| **Total** | **–** | **–** | **–** | **–** | **273** | **–** | **–** | **–** | **–** | **273** |
| **Payments per Government** | | | | | | | | | | |
| Société des Pétroles du Sénégal | – | – | – | – | 273 | – | – | – | – | 273 |
| **Total** | **–** | **–** | **–** | **–** | **273** | **–** | **–** | **–** | **–** | **273** |
| **Thailand (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Bongkot | *336,795* | – | 336,795 | – | – | 45,708 | – | – | – | 382,503 |
| G12/48 | *6,207* | *771* | 6,978 | – | – | – | – | – | – | 6,978 |
| **Total** | ***343,002*** | ***771*** | **343,773** | **–** | **–** | **45,708** | **–** | **–** | **–** | **389,481** |
| **Payments per Government** | | | | | | | | | | |
| Revenue Department | *248,101* | – | 248,101 | – | – | – | – | – | – | 248,101 |
| Department of Mineral Fuels, Ministry Of Energy | *94,901* | *771* | 95,672 | – | – | – | – | – | – | 95,672 |
| Ministry Of Energy | – | – | – | – | – | 45,708 | – | – | – | 45,708 |
| **Total** | ***343,002*** | ***771*** | **343,773** | **–** | **–** | **45,708** | **–** | **–** | **–** | **389,481** |

**Uganda (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Block CA–1 | – | – | – | – | 684 | – | – | – | – | 684 |
| Block CA–3A | – | – | – | – | 607 | – | – | – | – | 607 |
| Block LA–2 | – | – | – | – | 324 | – | – | – | – | 324 |
| **Total** | **–** | **–** | **–** | **–** | **1,615** | **–** | **–** | **–** | **–** | **1,615** |
| **Payments per Government** | | | | | | | | | | |
| Ministry of Energy and Mineral Development | – | – | – | – | 978 | – | – | – | – | 978 |
| Ministry of Water and Environment, NEMA | – | – | – | – | 532 | – | – | – | – | 532 |
| Ministry of Wildlife, Tourism and Antiquities, UWA | – | – | – | – | 105 | – | – | – | – | 105 |
| **Total** | **–** | **–** | **–** | **–** | **1,615** | **–** | **–** | **–** | **–** | **1,615** |

**United Arab Emirates (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Abu Al Bukhoosh | – | *(2,300)[a]* | (2,300) | – | – | – | – | – | – | (2,300) |
| ADNOC Gas Processing | – | *350,251* | 350,251 | – | – | – | – | – | – | 350,251 |
| ADNOC Onshore | – | *5,764,722* | 5,764,722 | – | 5,534 | – | – | – | – | 5,770,256 |
| Lower Zakum | – | *541,081* | 541,081 | – | 532 | – | – | – | – | 541,613 |
| Umm Shaif Nasr | – | *1,735,837* | 1,735,837 | – | 2,026 | – | – | – | – | 1,737,863 |
| **Total** | **–** | ***8,389,591*** | **8,389,591** | **–** | **8,092** | **–** | **–** | **–** | **–** | **8,397,683** |
| **Payments per Government** | | | | | | | | | | |
| Supreme Petroleum Council - Government of Abu Dhabi | – | *(2,300)[a]* | (2,300) | – | – | – | – | – | – | (2,300) |
| Abu Dhabi Fiscal Authorities | – | *8,126,942* | 8,126,942 | – | – | – | – | – | – | 8,126,942 |
| Abu Dhabi National Oil Company | – | *264,949* | 264,949 | – | 8,092 | – | – | – | – | 273,041 |
| **Total** | **–** | ***8,389,591*** | **8,389,591** | **–** | **8,092** | **–** | **–** | **–** | **–** | **8,397,683** |

(a) Refund of production taxes at the end of the concession Abu Al Bukhoosh.

**United Kingdom (paid in cash (kusd))**

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Payments per Project** | | | | | | | | | | |
| Central Graben Area | – | – | – | – | 563 | – | – | – | – | 563 |
| Culzean | – | – | – | – | 52 | – | – | – | – | 52 |
| Eastern North Sea | – | – | – | – | 984 | – | – | – | – | 984 |
| Greater Laggan Area | – | – | – | – | 1,655 | – | – | – | – | 1,655 |
| Markham Area | – | – | – | – | 89 | – | – | – | – | 89 |
| Northern North Sea | – | – | – | – | 2,454 | – | – | – | – | 2,454 |
| Non-attributable | *3,075,164[a]* | – | 3,075,164 | – | 127 | – | – | – | – | 3,075,291 |
| **Total** | ***3,075,164*** | **–** | **3,075,164** | **–** | **5,924** | **–** | **–** | **–** | **–** | **3,081,088** |
| **Payments per Government** | | | | | | | | | | |
| HM Revenue & Customs | *3,075,164[a]* | – | 3,075,164 | – | – | – | – | – | – | 3,075,164 |
| Crown Estate | – | – | – | – | 127 | – | – | – | – | 127 |
| North Sea Transition Authority | – | – | – | – | 5,797 | – | – | – | – | 5,797 |
| **Total** | ***3,075,164*** | **–** | **3,075,164** | **–** | **5,924** | **–** | **–** | **–** | **–** | **3,081,088** |

(a) Includes 584 M$ of windfall taxes (Energy Profit Levy).

| | *Income taxes* | *Other Taxes* | Taxes (Total) | Royalties | License fees | License bonuses | Dividends | Infrastructure improvements | Production entitlements | Total of Payments |
|---|---|---|---|---|---|---|---|---|---|---|
| **United States (paid in cash (kusd))** | | | | | | | | | | |
| **Payments per Project** | | | | | | | | | | |
| Barnett Shale | – | *31,325* | 31,325 | 33,757 | 38 | – | – | – | – | 65,120 |
| Gulf of Mexico | – | – | – | – | 2,890 | – | – | – | – | 2,890 |
| Jack | – | – | – | 32,023 | – | – | – | – | – | 32,023 |
| Tahiti | – | – | – | 54,398 | – | – | – | – | – | 54,398 |
| Non-attributable | *11,293* | – | 11,293 | – | – | – | – | – | – | 11,293 |
| **Total** | ***11,293*** | ***31,325*** | **42,618** | **120,178** | **2,928** | **–** | **–** | **–** | **–** | **165,724** |
| **Payments per Government** | | | | | | | | | | |
| Office of Natural Resources Revenue | – | – | – | 86,421 | 2,890 | – | – | – | – | 89,311 |
| Johnson County Tax Assessor | – | *1,255* | 1,255 | – | – | – | – | – | – | 1,255 |
| Tarrant County Tax Assessor | – | *2,952* | 2,952 | – | – | – | – | – | – | 2,952 |
| Texas State Comptroller's Office | – | *27,067* | 27,067 | – | – | – | – | – | – | 27,067 |
| City of Fort Worth | – | – | – | 10,750 | 15 | – | – | – | – | 10,765 |
| Dallas / Fort Worth International Airport Board | – | – | – | 6,414 | – | – | – | – | – | 6,414 |
| City of Arlington | – | – | – | 3,135 | – | – | – | – | – | 3,135 |
| Tarrant Regional Water District | – | – | – | 1,401 | 23 | – | – | – | – | 1,424 |
| State of Texas | – | – | – | 1,810 | – | – | – | – | – | 1,810 |
| City of North Richland Hills | – | – | – | 1,109 | – | – | – | – | – | 1,109 |
| Fort Worth Independant School District | – | – | – | 1,075 | – | – | – | – | – | 1,075 |
| Burleson Independant School District | – | – | – | 626 | – | – | – | – | – | 626 |
| Arlington Independant School District | – | – | – | 1,097 | – | – | – | – | – | 1,097 |
| Birdville Independent School District | – | – | – | 1,766 | – | – | – | – | – | 1,766 |
| Tarrant County College | – | – | – | 720 | – | – | – | – | – | 720 |
| City of Grand Prairie | – | – | – | 762 | – | – | – | – | – | 762 |
| Kennedale Independant School District | – | – | – | 330 | – | – | – | – | – | 330 |
| Tarrant County AAAA | – | – | – | 353 | – | – | – | – | – | 353 |
| Grapevine-Colleyville Tax Office | – | *51* | 51 | – | – | – | – | – | – | 51 |
| Internal Revenue Service | *11,293* | – | 11,293 | – | – | – | – | – | – | 11,293 |
| City of Cleburne | – | – | – | 583 | – | – | – | – | – | 583 |
| City of Burleson | – | – | – | 335 | – | – | – | – | – | 335 |
| Mansfield Independant School District | – | – | – | 752 | – | – | – | – | – | 752 |
| Crowley Independant School District | – | – | – | 335 | – | – | – | – | – | 335 |
| City of Crowley | – | – | – | 264 | – | – | – | – | – | 264 |
| White Settlement Independant School District | – | – | – | 140 | – | – | – | – | – | 140 |
| **Total** | ***11,293*** | ***31,325*** | **42,618** | **120,178** | **2,928** | **–** | **–** | **–** | **–** | **165,724** |

# 9.4 Reporting of payments to governments for purchases of oil, gas and minerals (EITI reporting)

## PURPOSE OF THE REPORTING

In September 2020, the Extractive Industries Transparency Initiative, or EITI, published its "Reporting Guidelines for Companies Buying Oil, Gas and Minerals from Governments." Those Guidelines are intended for companies that purchase oil, gas and/or minerals from governments, to guide them for the disclosure of payments made to governments. They aim to ensure the consistent disclosure of payments made to the state or state-owned enterprises (SOEs)[1] where oil, gas or minerals are being sold on behalf of the state, where EITI requirements are applicable and relevant, or where there is commitment to transparency in commodity sales.

These reporting guidelines were developed by the EITI Working Group on Transparency in Commodity Trading, and documented by the discussions at the OECD Thematic Dialogue on Commodity Trading Transparency. They are part of the implementation of Requirement 4.2 of the 2019 EITI Standard, which aims to ensure transparency in how the state is selling oil, gas and minerals by requiring disclosures by SOEs and/or other relevant government agencies concerning the sale of the state's share of production or other revenues collected in kind. Correspondingly, the Standard encourages companies buying oil, gas and/or mineral resources from the state or SOEs to disclose information regarding the volumes received from the state or SOE and payments made for the purchase of oil, gas and mineral resources.

Companies that purchase these commodities disclose this data on a voluntary basis. The Guidelines aim to identify:

1. Who is buying the product.
2. Who is selling the product.
3. What product is being purchased.
4. What the buyer pays to the seller for the product.

## DEFINITIONS

**Applicable purchases**: under the Guidelines, purchases of oil, petroleum products, metals and minerals should be reported. Oil and petroleum products may be categorized as "crude oil," "refined products" or "natural gas." For this 2022 reporting, TotalEnergies is disclosing its purchases of oil and petroleum products made during fiscal year 2022 by TotalEnergies SE's fully consolidated companies.

**Selling entities and purchases to be covered**: EITI recommends that the disclosures cover:

- purchases of the state's share of production and other in-kind revenues from EITI countries where the selling entity is a government agency or SOE or a third party appointed to sell on their behalf (i.e., where EITI Requirement 4.2 is applicable),
- purchases from SOEs in non-EITI countries that have explicitly or publicly stated their support to the initiative.

## REPORTING PRINCIPLES

TotalEnergies reporting follows the EITI recommendations mentioned hereabove.

From the reporting models suggested by EITI regarding the level of disaggregation, TotalEnergies has chosen model 1, in which disclosures of both volumes and values (amounts paid) are aggregated by individual seller (where the seller is any company that is wholly or majority owned by the state) for purchases of commodities delivered in 2022.

TotalEnergies follows the EITI recommendation with regards to obtaining the prior consent of the concerned countries before the publication of the procurement data concerning them. Therefore, TotalEnergies discloses under the category "Other Countries", aggregate data on its purchases from (i) SOEs in EITI countries that have not given such consent or to which Requirement 4.2 is not applicable by virtue of the systematic transparency implemented by their governments (Norway) and (ii) in non-EITI Countries, whether those countries have supported the transparency initiative or not (Abu Dhabi, Algeria, Angola, Azerbaijan, Bahrain, Belgium, China, Côte d'Ivoire, Denmark, Egypt, Finland, France, India, Kuwait, Libya, Malaysia, the Netherlands, Oman, Poland, Portugal, Qatar, Russia, Saudi Arabia, Singapore, South Korea, Taiwan, Tunisia, United Arab Emirates, United States of America, Vietnam).

(1) For the purpose of EITI implementation, a "state-owned enterprise (SOE) is a wholly or majority government-owned company that is engaged in extractives activities on behalf of the government." EITI Requirement 2.6.a.i.

## DISCLOSURE OF VOLUMES AND VALUE BY INDIVIDUAL SELLER

**Crude oil – Refined products**

| 1. Who is selling the product | | | 2. Who is buying the product | | 3. What product is being bought | | 4. What does the buyer pay to the seller for the product |
|---|---|---|---|---|---|---|---|
| Core Information | | Additional Information | Core Information | Additional Information | Core Information | | Core Information |
| Name of Country of Seller of Government Share of Production | Name of SOE or seller of the state share of production | Counterparty state owned % | Buying Entity | Beneficial Ownership | Product Type | Volumes Purchased (barrel) | Amounts paid (kUSD) |
| Iraq | SOMO | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | Crude oil | 6,285,542 | 574,126 |
| Mexico | PMI Comercio Internacional SA de CV | 100 | Atlantic Trading & Marketing Inc | TotalEnergies SE | Crude oil | 5,502,813 | 511,965 |
| Nigeria | NNPC | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | Crude oil | 5,360,712 | 554,855 |
| Colombia | Ecopetrol | 100 | Atlantic Trading & Marketing Inc | TotalEnergies SE | Crude oil | 1,231,280 | 108,761 |
| Other Countries | | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | Crude oil | 64,774,605 | 5,837,031 |
| Other Countries | | 100 | TotalEnergies Trading Asia Pte Ltd | TotalEnergies SE | Crude oil | 32,055,526 | 3,144,257 |
| Other Countries | | 100 | Atlantic Trading & Marketing Inc | TotalEnergies SE | Crude oil | 6,586,353 | 603,083 |
| Colombia | Refineria de Cartagena | 100 | Atlantic Trading & Marketing Inc | TotalEnergies SE | Refined products | 270,511 | 39,418 |
| Seychelles | Seychelles PET | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | Refined products | 19,566 | 1,738 |
| Other Countries | | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | Refined products | 93,739,310 | 10,999,418 |
| Other Countries | | 100 | TotalEnergies Trading Asia Pte Ltd | TotalEnergies SE | Refined products | 31,644,026 | 3,974,486 |

## Natural Gas – LNG – Sulphur – Petcoke

| 1. Who is selling the product | | | 2. Who is buying the product | | 3. What product is being bought | | | 4. What does the buyer pay to the seller for the product |
|---|---|---|---|---|---|---|---|---|
| Core Information | | Additional Information | Core Information | Additional Information | Core Information | | | Core Information |
| Name of Country of Seller of Government Share of Production | Name of SOE or seller of the state share of production | Counterparty state owned % | Buying Entity | Beneficial Ownership | Product Type | Volumes Purchased (Mbtu) | Volumes Purchased (ton) | Amounts paid (kUSD) |
| Germany | SEFE LNG Limited | 100 | TotalEnergies Gas & Power Limited | TotalEnergies SE | LNG | 14,819,000 | | 437,000 |
| Germany | Uniper Global Commodities SE | 100 | TotalEnergies Gas & Power Limited | TotalEnergies SE | LNG | 3,963,000 | | 147,000 |
| Germany | Uniper Global Commodities SE | 100 | TotalEnergies Gas & Power Limited | TotalEnergies SE | Natural gas | 45,562,000 | | 1,534,000 |
| Germany | SEFE Marketing & Trading Limited | 100 | TotalEnergies Gas & Power Limited | TotalEnergies SE | Natural gas | 6,168,000 | | 142,000 |
| Germany | ENBW Baden-Wurttemberg AG | 93.5 | TotalEnergies Gas & Power Limited | TotalEnergies SE | Natural gas | 736,000 | | 16,000 |
| Indonesia | PT Pertamina (Persero) | 100 | TotalEnergies Gas & Power Asia Pte Ltd | TotalEnergies SE | LNG | 77,573,000 | | 922,000 |
| Other Countries | | | TotalEnergies Gas & Power Limited | TotalEnergies SE | LNG | 412,518,000 | | 9,396,000 |
| Other Countries | | | TotalEnergies Gas & Power Limited | TotalEnergies SE | Natural gas | 15,335,000 | | 582,000 |
| Other Countries | | | TotalEnergies Gas & Power Limited | TotalEnergies SE | Sulphur | | 120,000 | 31,000 |
| Other Countries | | | TotalEnergies Gas & Power Limited | TotalEnergies SE | Petcoke | | 1,133,000 | 167,000 |
| Other Countries | | | TotalEnergies Gas & Power Asia Pte Ltd | TotalEnergies SE | LNG | 90,327,000 | | 2,144,000 |

## LPG

| 1. Who is selling the product | | 2. Who is buying the product | | 3. What product is being bought | | 4. What does the buyer pay to the seller for the product |
|---|---|---|---|---|---|---|
| Core Information | Additional Information | Core Information | Additional Information | Core Information | | Core Information |
| Name of Country of Seller of Government Share of Production | Counterparty state owned % | Buying Entity | Beneficial Ownership | Product Type | Volumes Purchased (barrel) | Amounts paid (kUSD) |
| Other Countries | 100 | TOTSA TotalEnergies Trading SA | TotalEnergies SE | LPG | 6,196,005 | 381,148 |
| Other Countries | 100 | TotalEnergies Trading Asia Pte Ltd | TotalEnergies SE | LPG | 569,687 | 31,784 |

# 11

# Additional reporting information

TotalEnergies considers transparency as a principle of action to provide a clear picture to investors, regulators and the public at large.

TotalEnergies also supports the World Economic Forum's initiative to propose common ESG metrics for all companies (see the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020) and started to report on the WEF's proposed core metrics in 2020.

Furthermore, the Company has proposed an additional reporting according to the SASB standard, EM-EP Oil & Gas Exploration & Production since 2020.

## 11.1 World Economic Forum Core ESG metrics

The following table uses the core metrics proposed by the World Economic Forum in the white paper titled "Measuring Stakeholder Capitalism – Towards common metrics and consistent reporting" published in September 2020.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **PRINCIPLES OF GOVERNANCE** | | |
| **Governing Purpose** | | |
| **Setting purpose**<br>The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders. | Yes | Our more than 100,000 employees are committed to energy that is more affordable, cleaner, more reliable and accessible to as many people as possible.<br>At the heart of the climate stakes, TotalEnergies' aim is to provide energy that is more available, more affordable, cleaner and accessible to as many people as possible. In this context, the Company's ambition is to reach carbon neutrality (net zero emissions) by 2050 together with society.<br>(Source: 2022 URD, §1.1.1 and 5.4) |
| **Quality of Governing Body** | | |
| **Board composition**<br>Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under-represented social groups; stakeholder representation. | Partially | **1.9.1 A fully committed Board of Directors**<br>The Board of Directors defines TotalEnergies' strategic vision and supervises its implementation in accordance with the corporate interest of the Corporation, by taking into consideration the social and environmental challenges of its business activities.<br>It approves investments or divestments for amounts greater than 3% of shareholders' equity and it is informed of those greater than 1%. The Board may address any issue related to the Company's operations. It monitors the management of both financial and non-financial matters and ensures the quality of the information provided to shareholders and financial markets.<br>The Board of Directors is assisted by the four committees it has created: the Audit Committee, the Governance and Ethics Committee, the Compensation Committee, and the Strategy & CSR Committee. The duties of the Board of Directors and of the Committees are described in point 4.1.2 of chapter 4.<br>The composition of the Board of Directors reflects the diversity and complementary of experience, skills, nationalities and cultures that are critical to addressing the interests of all of the Company's shareholders and stakeholders.<br>Refer to the URD Chapter 4.1: " Administration and management bodies".<br>Information provided on gender only, no details on other under-represented social groups.<br>(Source: 2022 URD, §1.9.1 and 4.1) |
| **Stakeholder Engagement** | | |
| **Material issues impacting stakeholders**<br>A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged. | Partially | The answer is provided in chapter 5.1 summarizing our dialogue with stakeholders.<br>But the Corporation hasn't disclosed a detailed materiality analysis.<br>(Source: 2022 URD, §5.1 and 5.3 to 5.10) |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Ethical Behaviour** | | |
| **Anti-corruption**<br>1. Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region<br>a) Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and<br>b) Total number and nature of incidents of corruption confirmed during the current year, related to this year.<br>2. Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption. | Partially | To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party.<br><br>The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company has drawn up a dedicated action plan to respond to the recommendations of the AFA. This action plan is currently being rolled out. […]<br><br>The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2022, the eighth Ethics Day was devoted to Respect for Each Others. An online speech by the President of the Refining & Chemicals segment, as well as speeches in the same format by the Heads of Compliance, Ethics and Human Rights were made available to employees. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this flagship value of the Company.<br><br>The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)(1) in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)(2) since its launch in 2002.[…]<br><br>Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 80,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which was mandatory for the target populations (approximately 35,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs. By the end of 2022, this new online training course, which was launched during the year, had already been completed by more than 31,000 employees.<br><br>At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers. In addition, in 2023, specific webinars are planned to be deployed for these same functions.<br><br>Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics. [...]<br><br>In 2022, the Company recorded just over 200 integrity incidents (covering fraud, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal.<br><br>(Source: 2022 URD, §5.8.1) |

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Ethical Behaviour** | | |
| **Protected ethics advice and reporting mechanisms**<br>A description of internal and external mechanisms for:<br>1. seeking advice about ethical and lawful behaviour, and organizational integrity;<br>2. reporting concerns about unethical or unlawful behaviour, and organizational integrity. | Yes | **3.6.3.1**<br>TotalEnergies has a three-tier organization: Corporate, business segments and operational entities. Each tier is involved in and accountable for identifying and implementing measures in the Vigilance Plan deemed appropriate within the scope of the entity in question.<br>The Action Principles are driven by the **Executive Committee.**<br>The **Ethics Committee** is the guarantor of the implementation of the Code of Conduct. Its chairman, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual ethics report to the Governance and Ethics Committee of the Board of Directors.<br>**5.7**<br>The Ethics Committee, on which representatives of all TotalEnergies' business segments sit plays a key role is one of listening and support. Employees, but also people from outside the Company, can contact the committee at the address ethics@totalenergies.com. The Committee protects the confidentiality of the complaints, which can only be lifted with the agreement of the complainant. The Chairwoman of the Ethics Committee presents an annual report on the Committee's ethics-related activities to the Governance and Ethics Committee of the Board of Directors.<br>**5.8.1.5**<br>In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct.<br>In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors.<br>Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.<br>(Source: 2022 URD, §3.6.3.1, 5.7 and 5.8.1.5) |
| **Risk and Opportunity Oversight** | | |
| **Integrating risk and opportunity into business process**<br>Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship. | Yes | Information disclosed in the chapters 3 and 5.<br>(Source: 2022 URD, §3.1 and 5.4) |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **PLANET** | | |
| **Climate change** | | |

### Greenhouse Gas (GHG) emissions

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F gases etc.), report in metric tonnes of carbon dioxide equivalent ($tCO_2e$) GHG Protocol Scope 1 & Scope 2 emissions.

Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Reported: Yes

**Indicators related to climate**[1]

| GHG emissions | | Operated domain 2022 | Operated domain 2021 | Operated domain 2020 | Operated domain 2015 | Equity interest domain 2022 | Equity interest domain 2021 | Equity interest domain 2020 | Equity interest domain 2015 |
|---|---|---|---|---|---|---|---|---|---|
| **SCOPE 1 Direct GHG emissions** | **Mt $CO_2e$** | **37** | **34* (33)** | **38* (36)** | **42** | **51** | **49** | **52** | **50** |
| **BREAKDOWN BY SEGMENT** | | | | | | | | | |
| Upstream oil & gas activities | Mt $CO_2e$ | 14 | 14 | 16 | 19 | 22 | 23 | 24 | 22 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | Mt $CO_2e$ | 9 | 5 | 3 | – | 9 | 6 | 5 | – |
| Refining & Chemicals | Mt $CO_2e$ | 15 | 15* *(14)* | 17 | 22 | 20 | 19 | 22 | 27 |
| Marketing & Services | Mt $CO_2e$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | 1 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | Mt $CO_2e$ | 23 | 20* *(19)* | 22* *(21)* | 22 | 21 | 18 | 20 | 22 |
| Eurasia (incl. Russia) / Oceania | Mt $CO_2e$ | <1 | 1 | 1 | 5 | 15 | 17 | 17 | 13 |
| Africa | Mt $CO_2e$ | 9 | 9 | 10 | 12 | 7 | 7 | 7 | 9 |
| Americas | Mt $CO_2e$ | 5 | 5 | 4 | 4 | 8 | 7 | 7 | 5 |
| **BREAKDOWN BY TYPE OF GAS** | | | | | | | | | |
| $CO_2$ | Mt $CO_2e$ | 36 | 32 | 34 | 39 | 50 | 47 | | |
| $CH_4$ | Mt $CO_2e$ | 1 | 1 | 2 | 2 | 1 | 1 | | |
| $N_2O$ | Mt $CO_2e$ | <1 | <1 | <1 | <1 | <1 | <1 | | |
| **SCOPE 2 Indirect emissions from energy use** | **Mt $CO_2e$** | **2** | **2* (2)** | **3* (3)** | **4** | **5** | **5** | | |
| Of which Europe: EU 27+ Norway + UK + Switzerland | Mt $CO_2e$ | **1** | 1* (1) | 2* (2) | 2 | **2** | 2 | | |
| **SCOPE 1+2** | **Mt $CO_2e$** | **40** | **37* *(35.7)*** | **41* *(38)*** | **46** | **56** | **54** | | |
| of which oil & gas facilities | Mt $CO_2e$ | 33 | 33* *(32)* | 39* *(36)* | 46 | 48 | 49 | | |
| of which CCGT | Mt $CO_2e$ | 7 | 4 | 3* *(3)* | – | 8 | 5 | | |
| Direct emissions of biogenic $CO_2$[2] | Mt $CO_2e$ | 0.1 | | | | 0.1 | | | |

| Methane emissions[a] | | Operated domain 2022 | Operated domain 2021 | Operated domain 2020 | Operated domain 2015 | Equity interest domain 2022 | Equity interest domain 2021 |
|---|---|---|---|---|---|---|---|
| | kt $CH_4$ | 42 | 49 | 64 | 94 | 47 | 51 |
| **BREAKDOWN BY SEGMENT** | | | | | | | |
| Upstream oil & gas activities | kt $CH_4$ | 41 | 48 | 62 | 92 | 43 | 48 |
| Integrated Gas, Renewables & Power, excluding upstream gas operations | kt $CH_4$ | 1 | <1 | <1 | 0 | 3 | 2 |
| Refining & Chemicals | kt $CH_4$ | 1 | 1 | 1 | 1 | 1 | 1 |
| Marketing & Services | kt $CH_4$ | 0 | 0 | 0 | 0 | 0 | |
| **BREAKDOWN BY GEOGRAPHY** | | | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | kt $CH_4$ | 7 | 7 | 12 | 9 | 5 | 5 |
| Eurasia (incl. Russia) / Oceania | kt $CH_4$ | 1 | 1 | 3 | 33 | 15 | 16 |
| Africa | kt $CH_4$ | 23 | 23 | 31 | 49 | 17 | 18 |
| Americas | kt $CH_4$ | 12 | 18 | 18 | 3 | 10 | 12 |

(1) Refer to point 5.11 of the chapter 5 for the scope of reporting.
(2) Biogenic $CO_2$ emissions from the Company's biogas assets. In accordance with the GHG Protocol these emissions are not included in Scope 1.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Climate change** | | |

**Greenhouse Gas (GHG) emissions**

For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F gases etc.), report in metric tonnes of carbon dioxide equivalent ($tCO_2e$) GHG Protocol Scope 1 & Scope 2 emissions.

Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.

Reported: Yes

| Other indirect GHG emissions | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| **SCOPE 3[b]** **Indirect GHG emissions related to the use by customers of energy products** | **Mt $CO_2e$** | **389* *(381)*** | **400* *(370)*** | **400* *(350)*** | **410** |
| **BREAKDOWN BY PRODUCTS** | | | | | |
| Petroleum products | Mt $CO_2e$ | 254* *(246)* | 285* *(255)* | 320* *(270)* | 350 |
| Biofuels | Mt $CO_2e$ | 4 | | | |
| Gas | Mt $CO_2e$ | 130 | 115 | 80 | 60 |
| **BREAKDOWN BY GEOGRAPHY** | | | | | |
| Europe: EU 27 + Norway + UK + Switzerland | Mt $CO_2e$ | 191* *(187)* | 220* *(202)* | 215* *(190)* | 256 |
| Eurasia (incl. Russia) / Oceania | Mt $CO_2e$ | 81* *(80)* | 79* *(77)* | | |
| Africa | Mt $CO_2e$ | 77* *(74)* | 68* *(59)* | | |
| Americas | Mt $CO_2e$ | 40* *(39)* | 33* *(31)* | | |

| Intensity indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| **Lifecycle carbon intensity of energy products used by the customers (73 g $CO_2e$/MJ in 2015)** | Base 100 in 2015 | **88** | **90* *(89)*** | **92* *(90)*** | 100[c] |
| Intensity of GHG emissions(Scope 1+2) of operated Upstream oil & gas activities[c] | kg $CO_2e$/boe | 17 | 17 | 18 | 21 |
| Intensity of GHG emissions(Scope 1+2) of Upstream oil & gas activities[d] on equity basis | kg $CO_2e$/boe | 19 | 19 | | |
| Intensity of methane emissions from operated oil & gas facilities (Upstream) | % | 0.11 | 0.13 | 0.15 | 0.23 |
| Intensity of methane emissions from operated gas facilities | % | <0.1 | <0.1 | <0.1 | <0.1 |

| Other indicators | | 2022 | 2021 | 2020 | 2015 |
|---|---|---|---|---|---|
| Net primary energy consumption (operated scope) | TWh | 166 | 148 | 147 | 153 |
| Renewable energy consumption (operated scope) | TWh | 1 | | | |
| Global energy efficiency indicator (GEEI) | Base 100 in 2010 | 85.1 | 87.0 | 90.2 | 90.8 |
| Flared gas (Upstream oil & gas activities operated scope) (including safety flaring, routine flaring and non-routine flaring) | $Mm^3/d$ | 3.3 | 3.6 | 4.2 | 7.2 |
| Of which routine flaring | $Mm^3/d$ | 0.5 | 0.7 | 0.6 | 2.3[e] |

* Valuation of these indicators excluding the COVID-19 effect.
(a) Excluding biogenic methane emissions, equal to less than 1 kt $CH_4$ in 2022. Biogenic methane is nevertheless included in the calculation of Scope 1.
(b) Oil products including bulk refining sales and biofuels; Natural Gas excluding minority stakes in public companies.
(c) Indicator developed in 2018, with 2015 as the baseline year.
(d) This indicator doesn't include LNG assets in its perimeter.
(e) Volumes estimated upon historical data.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Climate change** | | |
| **TCFD implementation** | | |
| Fully implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well below 2 °C above pre-industrial levels and pursue efforts to limit warming to 1.5 °C – and to achieve net zero emissions before 2050. | Yes | Non-financial performance statement aligned with TCFD recommendations, the climate report responds to TCFD recommendations.<br>(Source: 2022 URD, §5.4) |
| **Nature Loss** | | |
| **Land use and ecological sensitivity** | | |
| Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA). | Yes | 282 sites operated by the Company representing 8,273 hectares are located in or close to protected areas or key areas for biodiversity[(1)]. |
| **Fresh Water Availability** | | |
| **Water consumption and withdrawal in water stressed areas**<br>Report for operations where material: megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool.<br>Estimate and report the same information for the full value chain (upstream and downstream) where appropriate. | Yes | In order to identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawal of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI[(2)] Aqueduct tool. In 2022, the Company's sites withdrew 107 Mcm of fresh water, with net consumption of 80 Mcm. The increase in freshwater withdrawal in 2022 is essentially linked to an increase in the activity of gas-fired power plants. 51% of the volume was withdrawn in areas of water stress according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. These withdrawals represent 9.6% of the Company's overall water withdrawals (including brackish water and seawater). For priority sites defined as those located in water stress areas and withdrawing more than 500,000 $m^3$ per year (on the catchment areas of the Maas or the Scheldt in Belgium, the Seine and the West Coast (France), the Elbe (Germany), the Ebro (Spain) and the Gulf Coast (United States)), TotalEnergies assesses water resources risk levels using, in particular, the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). This tool also helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary.<br>This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users.<br>(Source: 2022 URD, §5.5.3) |

(1) In accordance with the GRI reference framework.
(2) World Resources Institute. The indicators in this paragraph are evaluated from the Projected Basic Water Stress 2030.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **PEOPLE** | | |
| **Dignity and Equality** | | |
| **Diversity and inclusion**<br><br>Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity). | Yes | Throughout its activities, diversity is integral to TotalEnergies' identity and key to its success. The Company has long been committed to promoting equal opportunity and diversity, and strives to promote an inclusive corporate culture and an environment that allows every employee to express and develop his or her potential.<br><br>The diversity of its employees and management is crucial to the Company's competitiveness, appeal, acceptability and capacity for innovation. TotalEnergies aims to develop its employees' skills and careers by implementing an inclusive Human Resources policy, while excluding any discrimination related to national, ethnic or social origins, gender, sexual orientation or gender identity, marital or parental status, disability, state of health, age or affiliation with a political, labor or religious organization, or membership in a minority group.<br><br>This policy is supported at the highest levels and promoted by the Diversity and Inclusion Council, which is chaired by a member of the Company's Executive Committee. The Diversity and Inclusion Council is also charged with making specific recommendations on issues identified each year by the Executive Committee.<br><br>(Source: refer to 2022 URD, § 5.6.3.1)<br><br>N.B. Tables of employees available in § 5.6.1.1:<br>– Breakdown by employment contract,<br>– Breakdown by age group,<br>– Total number of managers.<br><br>Details of the data, as well as other breakdowns, are available with a 5-year history on the TotalEnergies website, in the "Social indicators" section of the "Sustainability" page<br><br>Breakdown by gender available in § 5.6.3.1:<br>– Among all employees,<br>– Among managers (first levels, middle, senior and senior executive),<br>– Breakdown by gender and age group.<br><br>Breakdown by nationality available in § 5.6.3.1:<br>– Among all employees,<br>– Among managers (senior and senior executive). |
| **Pay equality**<br><br>Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas. | Partially | The Company's compensation policy applies to all companies in which TotalEnergies SE holds the majority of voting rights. That policy has several aims: to ensure external competitiveness and internal fairness, reinforce the link to individual performance, increase employee share ownership and implement the Company's corporate social responsibility commitments. [...]<br><br>The Company's compensation policy is designed to offer competitive, fair and responsible compensation. In particular, it stipulates that compensation levels must be equivalent internally for positions with the same level of responsibility in a given environment (activity, country). Fair treatment is ensured within the Company through the widespread use of weighting for management positions (JL ≥ 10) via the Hay method. Performance reviews for Company employees, covering actual versus targeted results, skills assessment and overall job performance, are conducted during an annual individual review and formally issued in accordance with the same principles and guidelines across the entire Company.<br><br>The compensation structure for the Company's employees is based on the following components, depending on the country:<br>– **a base salary**, which is subject to individual and/or general salary-raise campaigns each year. The salary-raise campaigns are intended to compensate employees' individual performance according to the targets set during the annual individual review, including at least one HSE target,<br>– **an individual variable compensation** starting at a certain level of responsibility. This is intended to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2022, 82.6% of the Company's entities (scope of the compensation survey (refer to point 5.11.2) included HSE criteria in the variable compensation. In particular, HSE criteria include greenhouse gas reduction targets.<br><br>(Source: refer to 2022 URD, §5.6.1.2) |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Dignity and Equality** | | |
| **Pay equality**<br>Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas. | Partially | **In terms of compensation**, TotalEnergies has been adopting specific measures to prevent and compensate for discriminatory wage differentials in several countries. Regular checks are carried out during salary-raise campaigns to ensure equal pay among men and women holding positions with the same level of responsibility.<br>Since 2019, consistent with French Act 2018-771 of September 5, 2018, on the freedom to choose one's professional future, the Company has published an index in France for its three units of economic and employee interest (UESs) on wage differentials and the steps taken to eliminate them. That index, based on a score of 100, reflects five indicators: wage differentials, pay raise differentials excluding promotions, promotion rate differentials, percentage of female employees who received a pay raise in the year they returned from maternity leave, number of employees of the under-represented gender among the ten employees who received the highest compensation.<br>(Source: refer to 2022 URD, §5.6.3.1)<br>N.B. The index table is available in point 5.6.3.1 |
| **Wage level**<br>1. Ratios of standard entry level wage by gender compared to local minimum wage.<br>2. Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO. | Yes | In 2021, TotalEnergies initiated a process to assess any discrepancies between the direct salary and the **living wage**[1] in all its subsidiaries[2]. The result of the studies carried out show that, at the end of 2022, the Company had reached its target, because 100% of employees received a direct salary that exceeds the living wage in the country or region in which they work.<br>A living wage is defined as an income that allows employees:<br>– to provide a decent life for their family,<br>– for standard working hours,<br>– to cover their essential expenses (food, water, electricity, housing, education, health, clothing, etc.),<br>– the ability to cope with some of life's uncertainties.<br>(Source: refer to 2022 URD, §5.6.1.2)<br>The Company's policy consists of providing levels of compensation that are higher than the minimum level observed locally, through regular benchmarks, in countries where legislation guaranteeing a minimum wage is lacking.<br>(Source: refer to 2022 URD, §5.6.1.2)<br>At the global level, a verification of compliance with the minimum wage guaranteed by local legislation is also carried out on the base salary. In order to ensure equal pay for men and women, the Company plans to implement an annual review in all countries and a corrective action plan if necessary.<br>(Source: refer to 2022 URD, §5.6.3.1)<br>N.B.<br>1. Ratio of the lowest base salary by gender to the minimum salary guaranteed by local legislation, aggregated by geographical area, available in point 5.6.3.1<br>2. Chairman and Chief Executive Officer compensation ratio available in point 4.3.2.1 |
| **Risk for incidents of child, forced or compulsory labor**<br>An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour. Such risks could emerge in relation to:<br>a) type of operation (such as manufacturing plant) and type of supplier; and<br>b) countries or geographic areas with operations and suppliers. | Yes | Forced and child labor have been identified as risks of severe negative impacts from our activities on human rights, notably in the supply chain, and mentioned as such in the Non-financial performance statement – Human rights section. The supplier qualification process is presented in the Non-financial performance statement – Procurement section.<br>(Source: 2022 URD, §5.7.1 and 5.10) |

(1) TotalEnergies relies on the global database provided by the Fairwage Network, which assesses the living wage for a given country or region, based on the typical family size (number of children) and the average number of workers (between one and two per household).
(2) It applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50%.

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Health and well being** | | |
| **Health and safety**<br>1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked.<br>2. An explanation of how the organization facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers. | Yes | **1. Indicators:**<br>Number of fatalities as a result of work related injury: **3**<br>Rate of fatalities as a result of work related injury (per 100 million hours worked): **0.77**<br>High consequence work related injuries (excluding fatalities): **10**<br>Recordable work related injuries (per 100 million hours worked): **0.67**<br>Main types of work related injury: In 2022, of the 263 occupational accidents reported, 256 related to accidents at the workplace. 73% of these occurred, in decreasing order of the number accidents, when handling loads or objects, walking, using portable tools or working with powered systems.<br>Number of hours worked: **392 million**<br>(Source: 2022 URD, §5.3.2)<br>**2. Explanations:**<br>The Company has a **policy for the prevention of occupational accidents** which applies to all employees of subsidiaries and of contractors working on a site operated by one of these subsidiaries. The safety results are monitored with the same attention for all. This policy is described in the One MAESTRO reference framework.<br>The indicators monitored by TotalEnergies include work-related accidents whether they occur at workplace, during transportation within the framework of long-term contracts, or during an industrial accident. In addition to its aim of zero fatalities in the exercise of its activities, TotalEnergies has set itself the target of continuously reducing the TRIR indicator and, for 2023, of reducing it below 0.65 for all personnel of the Company and its contractors. The 2022 target was 0.70.<br>(Source: 2022 URD, §5.3.2)<br>In 2018, the Company structured its organization by appointing a medical coordinator in charge of the health policy. They organize active monitoring and promote health issues by regularly participating in discussions between peers, particularly as part of the *Association of medical coordinators* in major international groups. In addition, they can call on a Medical Advisory Committee that meets regularly to discuss key health issues relating to the Company's activities. This Committee decides whether there is a need for additional health protection strategies to be implemented. It consists of external scientific experts and the Company's senior executives and stakeholders concerned by these issues. The medical coordinator also leads the Health Steering Committee, a health governance body, which brings together the health officers of the Company's various business segments on a quarterly basis.<br>Furthermore, in view of its activities and exposure, TotalEnergies has an international medical department that designs, coordinates and supervises operational medical logistics abroad. It is the decision-making level in terms of medical safety of expatriate and national employees. For foreign subsidiaries, it coordinates the organization of health services, employee aptitude assessments, medical monitoring and support for employees and expatriates' families, and medical evacuations. It also conducts audits of medical facilities in countries where TotalEnergies is present and issues recommendations.<br>In terms of **medical monitoring**, the health reference framework provides that each Company subsidiary offers all employees a medical checkup at least every two years unless there are specific local regulations or context and sets out a formal medical monitoring procedure taking into account the requirements under local law (frequency, type of examination, etc.) and the level of exposure of its personnel to the various risks. Medical monitoring of employees is conducted at a health department, which may be internal (occupational health departments in France, clinics in five countries in Africa) or external. At the end of 2022, 59% of subsidiaries offered a health check every two years.<br>On a broader level, TotalEnergies also supports the **promotion of individual and collective health programs** in the countries where it operates, including vaccination campaigns and screening programs for certain diseases (COVID-19, AIDS, cancer, malaria, etc.) for employees, their families and local communities. It is also developing social protection schemes. Lifestyle risk awareness activities (anti-smoking and anti-alcohol campaigns, etc.) are also implemented on a regular basis.<br>(Source: refer to 2022 URD, §5.3.4) |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Health and well being** | | |
| **Health and safety**<br>1. The number and rate of fatalities as a result of work related injury; high consequence work related injuries (excluding fatalities); recordable work related injuries; main types of work related injury; and the number of hours worked.<br>2. An explanation of how the organization facilitates workers' access to non occupational medical and healthcare services, and the scope of access provided for employees and workers. | Yes | The Company provides **pension and employee benefit programs** (health and death) that meet the needs of the subsidiaries, as well as the Company's standards, designed to ensure that each employee can:<br>– in case of illness, receive coverage that is at least equal to the median amount for the national industrial market,<br>– participate in a savings or supplementary retirement plan,<br>– organize the protection of the family in the event of the death of the employee.<br>To this end, TotalEnergies is deploying a number of commitments and mechanisms worldwide. Each entity is requested to:<br>– where appropriate, set up a pension and health insurance plan, in addition to the legal plans in force, with the assistance of Human Resources department of the business segment,<br>– propose to employees a health check at least every two years, excepting specific local regulations or contexts (refer to point 5.3.4),<br>– set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary. At the end of 2022, nearly 90% of the Company's permanent employees were covered worldwide.<br>These programs, which are regularly reviewed and, if necessary, adjusted, are administered by the subsidiaries and supplement any programs provided under local law.<br>(Source: refer to 2022 URD, §5.6.1.2)<br>As part of its health policy, the Company has implemented a **Mental Health risks** (MHR) prevention policy aimed at protecting the mental health of employees and has introduced a global program to enable all exposed employees to receive support, wherever they are in the world. The incorporation of mental health by the Company is part of a broader framework linked to well-being and quality of life at work, which includes social protection, working methods and environment, taking family life into account, and listening and caring at all levels of management.<br>(Source: refer to 2022 URD, §5.3.4)<br>N.B. Tables available in point 5.3.4:<br>– Percentage of employees with specific occupational risks benefiting from regular medical monitoring,<br>– Number of occupational illnesses recorded in the year. |
| **Skills for the future** | | |
| **Training provided**<br>1. Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of trainings provided to employees divided by the number of employees).<br>2. Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees). | Yes | The Company's **training** policy is structured around five major areas:<br>– sharing TotalEnergies' basic corporate values, particularly with respect to HSE, the climate, ethics, leadership, innovation and digital technology,<br>– supporting the development of existing activities and creating new ones in order to achieve the Company's ambitions,<br>– strengthening key skills in all the Company's business areas to maintain a high level of operating performance in the workforce,<br>– promoting employees' integration and career development through training designed to teach employees about the Company, management skills and personal development,<br>– supporting the policy of mobility, diversity and inclusion within TotalEnergies through language and intercultural training.<br>When they start a new position, an individual training plan that identifies their training needs for the next three years is defined with the manager, so that employees have the resources they need to be successful in their new job and upgrade their skills. At the end of 2022, the Executive Committee decided to make all employees active players in their professional training strategy. In addition to the mandatory training programs required to remain in their job, in 2023, every employee will have the option of enrolling for up to 3 days of training of their choice each year in fields that they consider to be important for their development. The objective of the Executive Committee is that every employee can devote at least 5 days a year to their professional training.<br>The Company's training catalog offers nearly 6,000 training content (on-site and remote training) covering all technical, business and cross-functional fields, including behavioral soft skills.<br>(Source: refer to 2022 URD, §5.6.2.1)<br>N.B. Tables available in point 5.6.2.1:<br>– Average number of training days/year per employee,<br>– Breakdown by gender,<br>– Average training cost per employee. |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **PROSPERITY** | | |
| **Employment and Wealth Generation** | | |
| **Absolute number and rate of employment**<br>1. Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region.<br>2. Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region. | Yes | Attracting and retaining the diverse talents that the Company needs is one of the key factors in driving the transformation of TotalEnergies into a multi-energy company. To succeed in that task, TotalEnergies carefully manages its hires and departures.<br>(Source: refer to 2022 URD, §5.6.1)<br>N.B. Tables available in point 5.6.1.1:<br>Total number hired on permanent contracts (CDI)<br>– Managers / non managers breakdown,<br>– Breakdown by age group,<br>– Breakdown by region.<br>Total departures<br>– Breakdown by gender,<br>– Breakdown by region.<br>N.B. Tables available in point 5.6.3.1:<br>– Hires breakdown by gender,<br>– Hires breakdown by nationality.<br>Details of the data, as well as other breakdowns, are available with a 5-year history on the TotalEnergies website, in the "Social indicators" section of the "Sustainability" page. |
| **Economic Contribution**<br>1. Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organization's global operations, ideally split out by:<br>– Revenues<br>– Operating costs<br>– Employee wages and benefits<br>– Payments to providers of capital<br>– Payments to government<br>– Community investment.<br>2. Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period. | Partially | Calculation of EVG&G not done as such, but some elements are available.<br>(Source: 2022 URD, §1.1.3, 1.10, 8.2 and 8.7) |
| **Financial investment contribution**<br>Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy.<br>Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders. | Yes | Information provided in the URD.<br>(Source: 2022 URD, §1.6.1, 1.10, 5.4.6, 8.6 and 8.7) |

| Sub-items, proposed metrics and disclosures | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|
| **Innovation in better products and services** | | |
| **Total R&D expenses**<br>Total costs related to research and development. | Yes | To prepare for the future, the Company has allocated more than $1 billion in funding for R&D and digitalization in 2022.<br>The Company invested $762 million in its own and its subsidaries' R&D in 2022 (compared to $849 million in 2021 and $895 million in 2020) with a dedicated workforce of more than 3,500 researchers. At constant foreign exchange rates, research and development costs increased by 4% in 2022.<br>Over the past years, the Company has strongly re-oriented its R&D to support its strategy of transformation. Compared to 28% in 2017, TotalEnergies has decided in 2022 to devote 65% of the 2023 R&D budget to low carbon energies (renewables, biomass, batteries, etc.) and to reducing the environmental footprint through CCUS and sustainable development programs.<br>(Source: 2022 URD, §1.7.2) |
| **Community and social vitality** | | |
| **Total tax paid**<br>Total tax paid by the group, including corporate income taxes, property taxes, non creditable VAT and other sales taxes, employer paid payroll taxes, and other taxes that constitute costs to the company, by category of taxes. | Yes | The Company publishes, every year, a tax transparency report, which provides detailed information on the taxes paid in its main countries of operations on a country-by-country basis and on the total tax contribution, broken down by category of tax and by region.<br>(Source: TotalEnergies' website)<br>TotalEnergies also publishes in its URD an annual report covering the payments made by its extractive affiliates to governments, per country and per project, among which tax payments, with a specific breakdown on corporate income tax payments.<br>(Source: 2022 URD, §9.3) |

## 11.2 SASB Report

The reporting below presents a set of sustainable development indicators at Company level, based on the American SASB EM-EP standard (Oil & Gas – Exploration & Production). This report includes some of the elements of the consolidated non-financial performance statement (chapter 5), whose scope and reporting methodologies are presented in point 5.11 of chapter 5.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Greenhouse Gas Emissions** | | | |
| **EM-EP-110a.1** | Gross global Scope 1 emissions | Yes | **Operated perimeter: 37 Mt $CO_2$e**<br>Equity interest share: 51 Mt $CO_2$e<br>(Source: 2022 URD, §5.4.4) |
| | Scope 1, percentage of methane | Yes | **1.1 Mt $CO_2$e, *i.e.*, 3%**<br>42 kt $CH_4$<br>(Source: 2022 URD, §5.4.4) |
| | Scope 1, percentage covered under emissions-limiting regulations | Yes | **23 Mt $CO_2$e, *i.e.*, 60%**<br>(Source: 2022 URD, §5.4.4, Europe perimeter) |
| **EM-EP-110a.2** | Amount of gross global Scope 1 emissions from flared hydrocarbons | Yes | **4.5 Mt $CO_2$e** |
| | Amount of gross global Scope 1 emissions from other combustion | Yes | **26 Mt $CO_2$e** |
| | Amount of gross global Scope 1 emissions from process emissions | Yes | **6 Mt $CO_2$e** |
| | Amount of gross global Scope 1 emissions from other vented emissions | Yes | **0.5 Mt $CO_2$e** |
| | Amount of gross global Scope 1 emissions from fugitive emissions | Yes | **0.5 Mt $CO_2$e** |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Greenhouse Gas Emissions** | | | |
| **EM-EP-110a.3** | Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets | Yes | TotalEnergies has set targets and introduced a number of indicators to steer its performance.<br><br>**Climate targets of the Company**<br>**2030 worldwide targets (Scope 1+2)**<br>– Reduce GHG emissions (**Scope 1+2**) from operated facilities from 46 Mt $CO_2$e in 2015 to less than 38 Mt $CO_2$e by 2025. By 2030, the target is a reduction of at least 40% of net emissions[1] compared to 2015 for its operated activities, i.e., 25 to 30 Mt $CO_2$e<br>– Improve the **energy efficiency** of operated facilities by 1% per year since 2010<br>– Reduce **methane emissions**[2] from operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030<br>– Maintain the **methane emissions intensity** below 0.1% of commercial gas produced at operated gas facilities<br>– Reduce **routine flaring**[3] at a level below 0.1 $Mm^3$/d by 2025, with the goal of eliminating it by 2030<br>**2030 worldwide targets (Scope 3)**<br>– Maintain **Scope 3**[4] GHG emissions related to its customers' use of energy products to less than 400 Mt $CO_2$e by 2025 and 2030<br>– Reduce **Scope 3** GHG emissions related to its customers' use of petroleum products sold worldwide by more than 30% compared by 2025 compared to 2015; by 2030, the objective is a reduction of at least 40%<br>**2030 worlwide target (carbon intensity)**<br>– Reduce the **lifecycle carbon intensity** of energy products used by customers by more than 25% compared to 2015. By 2025, the target reduction is at least 15% (**Scope 1+2+3**)<br>**Facts**<br>– A reduction in GHG emissions (Scope 1+2) from operated facilities from 46 Mt $CO_2$e in 2015 to **40 Mt $CO_2$e** in 2022<br>– **15%** improvement in energy efficiency between 2010 and 2022<br>– Methane emissions already reduced by **50%** between 2010 and 2020 and by **34%** between 2020 and 2022<br>– Methane intensity of less than **0.1%** for operated gas facilities<br>– More than **90%** reduction in routine flaring between 2010 and 2022<br>– Scope 3 GHG emissions limited to **389 Mt $CO_2$e** excluding the COVID-19 effect in 2022, below the level of 2015<br>– A decrease of the Scope 3 GHG emissions from the petroleum products sold of **27%** excluding the COVID-19 effect in 2022 compared to 2015<br>– A decrease of the carbon intensity of **12%** between 2015 and 2022<br><br>It should be noted that the decrease in the Company's GHG emissions (Scope 1+2+3) in 2020, and to a lesser extent in 2021, and in the first half of 2022 for Scope 3 emissions, is partly related to the impact of the COVID-19 pandemic on TotalEnergies's activities, hence the references to estimates excluding the COVID-19 effect.<br>(Source: 2022 URD, §5.4.4) |

(1) The calculation of net emissions takes into account negative emissions from natural sinks like forests, regenerative agriculture and wetlands.
(2) Excluding biogenic methane.
(3) Routine flaring, as defined by the working group of the Global Gas Flaring Reduction program within the framework of the World Bank's Zero Routine Flaring initiative.
(4) GHG Protocol - Category 11.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Air Quality** | | | |
| **EM-EP-120a.1** | Air emissions of the following pollutants: $NO_x$ (excluding $N_2O$) | Yes | **60 kt** (Source: 2022 URD, §5.5.3) |
| | Air emissions of the following pollutants: $SO_x$ | Yes | $SO_2$: **13 kt** (Source: 2022 URD, §5.5.3) |
| | Air emissions of the following pollutants: volatile organic compounds (VOCs) | Yes | NMVOCs: **48 kt** (Source: 2022 URD, §5.5.3) |
| | Air emissions of the following pollutants: particulate matter ($PM_{10}$) | Yes | **3.9 kt** of total particulate matter |
| **Water Management** | | | |
| **EM-EP-140a.1** | Total fresh water withdrawn | Yes | **107,000 megaliters** (Source: 2022 URD, §5.5.3) |
| | Percentage of fresh water withdrawn in regions with High or Extremely High Baseline Water Stress | Yes | **51%** (Source: 2022 URD, §5.5.3) |
| | Total fresh water consumed | Yes | **80,000 megaliters** (Source: 2022 URD, §5.5.3) |
| | Percentage of fresh water consumed in regions with High or Extremely High Baseline Water Stress | Yes | **52%** |
| **EM-EP-140a.2** | Volume of produced water and flowback generated | Yes | **128,263 megaliters** (indicator for EP segment only) |
| | Percentage discharged | Yes | **51%** (indicator for EP segment only) |
| | Percentage injected | Yes | **49%** (indicator for EP segment only) |
| | Percentage recycled | Yes | **0%** (indicator for EP segment only) |
| | Hydrocarbon content in discharged water | Yes | **6.6 mg/l**<br>**Offshore: 12.9 mg/l**<br>**Onshore: 1.8 mg/l**<br>(Source: 2022 URD, §5.5.3) |
| **EM-EP-140a.3** | Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used | Yes | **100%** |
| **EM-EP-140a.4** | Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline | Yes | **0%** |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) | |
|---|---|---|---|---|
| **Biodiversity Impacts** | | | | |
| **EM-EP-160a.1** | Description of environmental management policies and practices for active sites | Yes | Aware of the need to preserve biodiversity and protect nature, TotalEnergies ensures that this is taken into account in all its activities by applying the Avoid-Minimize/Restore-Offset mitigation hierarchy. In 2016, the Company pledged to contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs), including those relating to biodiversity. Since 2018, TotalEnergies has been a signatory to the Act4Nature initiative promoted by the French Association of Enterprises for the Environment, now act4nature international alliance.<br><br>In 2020, TotalEnergies set itself a new global biodiversity ambition to coincide with the preparation of the United Nations' global biodiversity plan, and updated its public commitments in this field.<br><br>This ambition is based on four core principles: (1) voluntary exclusion zones, (2) biodiversity management in projects, (3) biodiversity management at existing and abandoned sites and (4) promoting biodiversity. This ambition has been incorporated into the Company's One MAESTRO framework.<br><br>A communication plan was developed and deployed in the Company's various segments and R&D. A series of webinars open to all of the Company's HSE personnel was organized to raise awareness of this ambition. A number of specific meetings were held to present this Ambition to the Company's partners and allow their viewpoints and recommendations to be heard. An overview of the steps already taken under the four main areas of the biodiversity ambition is provided in the table below. | |
| | | | **Biodiversity Ambition** | |
| **EM-EP-160a.1** | Description of environmental management policies and practices for active sites | Yes | **1.** Voluntary exclusion zones:<br>– the Company has made a commitment to recognize the universal value of UNESCO's world natural heritage sites, by not conducting oil and gas exploration or production activity in these areas.<br>– TotalEnergies has also made a commitment not to conduct any exploration activity in oil fields under the Arctic sea ice. | **Facts:**<br>– This commitment is respected.<br>– As in previous years, in 2022 the Company did not conduct any exploration activity in oil fields under the Arctic sea ice. The list of its licenses in the Arctic zone is available on the Company's website |
| | | | **2.** New projects:<br>The Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implement measures to produce a net positive impact (gain) on biodiversity. | **Facts:**<br>A biodiversity action plan has been put in place for all operated production projects and sites located in the most sensitive protected areas, corresponding to the IUCN I to IV and Ramsar areas, some of which have a target of a net gain. In 2022, this concerned seven projects, four of which are aligned with the performance standards of the World Bank's International Finance Corporation (IFC), which require a net gain. These are:<br>– The BAP for the existing Djeno oil terminal (Republic of Congo), located in a Ramsar zone, was developed in 2015 and is continuing to be deployed, in particular by contributing to the monitoring of the sea turtle nesting area adjoining the site in partnership with the Rénatura NGO. An update to the BAP was also launched in 2022.<br>– The BAP for the existing onshore oil terminal in Tempa Rossa (Italy), for which the concession partly overlaps an IUCN II area, was developed in 2019. An update is underway, with targeted actions to protect habitats, renaturing, landscape protection, promoting the maintenance of traditional agricultural activities and ecotourism. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) | |
|---|---|---|---|---|
| **Biodiversity Impacts** | | | | |
| **EM-EP-160a.1** | Description of environmental management policies and practices for active sites | Yes | **2.** New projects:<br><br>The Company has made a commitment to develop a biodiversity action plan (BAP) for any new site located in an area of interest for biodiversity, that is IUCN (International Union for Conservation of Nature) Protected areas I to IV or Ramsar areas. In addition, for each new project located in an IUCN Protected area I or II or a Ramsar area, the Company commits to implement measures to produce a net positive impact (gain) on biodiversity. | – The net gain BAP of the Tilenga oil project (Uganda), partly located in IUCN zone II, is 100% complete for its design phase and its implementation has started with the launch of the five programs of the net gain plan. For example, the restoration project of the forest corridor of ecological connectivity for chimpanzee habitats of 1,000 ha has been launched with 350 ha planted in 2022. This BAP is aligned with the performance standards of the International Finance Corporation.<br>– The design phase of the EACOP pipeline project (Tanzania) net gain BAP, which skirts an IUCN III zone, has been completed and implementation is under way, some measures having already been implemented proactively. For example, a coral reef restoration project, at the future arrival of the pipeline to the coast, was launched with a Tanzanian NGO. This BAP is aligned with the performance standards of the IFC.<br>– The BAP with net gain of the Mozambique LNG Project (Mozambique) has been completed for the design phase. The implementation of measures related to construction was temporarily suspended due to security problems in the Cabo Delgado area. However, actions outside the BAP, such as the planting of 1,000 hectares of mangrove and the launch of a coral reef restoration project, were carried out in 2022. This BAP is aligned with the performance standards of the IFC.<br>– The design of the net gain BAP of the Papua LNG project (Papua New Guinea) is continuing and ARO measures related to the pre-construction activities deployed. The updating of the biodiversity policy and the development of a biodiversity strategy have been carried out and the external biodiversity and societal advisory committee is being set up. The project does not cross any IUCN or Ramsar protected areas. This BAP is aligned with the performance standards of the IFC.<br>– The BAP of the existing mixed wind/solar terrestrial site Eole/Helio La Perrière (Reunion Island, France) is continuing as part of the redevelopment of the site, in particular with relocation and monitoring activities for the Bourbon Gecko. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) | |
|---|---|---|---|---|
| **Biodiversity Impacts** | | | | |
| | | | **3.** Existing sites: | **Facts:** |
| | | | A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant site (Exploration & Production production sites, refineries, petrochemicals sites, gas-fired power stations) which is ISO14001 certified. TotalEnergies will report on its deployment to the various stakeholders. | In 2022, a biodiversity assessment was carried out on 43 sites that are important for the environment[1] versus 5 in 2021. Since 2021, 48 of the 73 sites important for the environment have been diagnosed, i.e., 66% of the 2025 target. In addition, five sites voluntarily conducted a biodiversity diagnosis (M&S and RC depots, and a training center). The BAPs will be gradually prepared and deployed. |
| | | | When a site stops its operations, TotalEnergies is also committing to considering the development of a dedicated area rich in biodiversity (e.g. rare species habitats, biodiversity sanctuaries, etc.) as one of the options for its rehabilitation. | Regarding the creation of biodiversity-rich areas (habitats, biodiversity sanctuaries, etc.) as a rehabilitation option for sites that have ceased their activity, initial projects include the creation of a habitat for reptiles on the banks of the Garonne River and measures to conserve protected bird and amphibian species in Oberhoffen-sur-Moder, France. Approximately 10 other sites in France are being evaluated, including biodiversity surveys, and the enhancement of biodiversity, which may lead to similar initiatives |
| **EM-EP-160a.1** | Description of environmental management policies and practices for active sites | Yes | **4.** Promotion of biodiversity: | **Facts:** |
| | | | – As part of the TotalEnergies Foundation's Climate, Coastal and Oceans program, TotalEnergies wishes to support biodiversity-related awareness programs, youth education and research actions.<br>– TotalEnergies also commits to sharing biodiversity data collected as part of environmental studies on Company projects with the scientific community and the general public. | The TotalEnergies Foundation program supports the Polar Pod expedition which aims to study the Antarctic circumpolar current to gain a better understanding of air-ocean exchanges, to validate satellite measurements and to observe biodiversity and the impact of human activities in the Southern zone. This knowledge will be disseminated to a young audience through an educational project. The TotalEnergies Foundation also supports the Valasterid research program sponsored by the Concarneau Marine Biological Station (France), one of the sites in the region of the National Museum of Natural History. The objective of this innovative program is to study a process for recovering biomass from the sea stars that proliferate in southern Breton waters, in order to regulate their spread and thus protect resources such as scallops, mussels and other bivalves and the balance of their ecosystems.<br><br>In order to continue sharing its biodiversity data and tools with the scientific community, the Company has joined the international Global Biodiversity Information Facility (GBIF). In 2022, the data loaded concern the Company's projects in Argentina, Suriname, France and Belgium. The data published by TotalEnergies were downloaded more than 8,200 times and quoted 18 times in scientific publications.<br><br>In addition, Oxford University in the United Kingdom (Long Term Ecology Laboratory), TotalEnergies and Equinor launched a collaboration program in 2018 with the aim of developing a tool for screening of marine biodiversity sensitivities. The marine LEFT (Local Ecological Footprint Tool) has now been finalized and is available online for industry, the public sector and NGOs. |

(1) Production sites of the subsidiaries of the Exploration & Production segment, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, as well as gas-fired power plants operated by the Company in the Integrated Gas, Renewables and Power segment.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **EM-EP-160a.1** | Description of environmental management policies and practices for active sites | Yes | Lastly, the Company has a number of R&D programs relating to biodiversity. These include the development with UNEP WCMC[1] of a biodiversity impact indicators methodology that can be consolidated at Company level, the development of a decision-support tool for actions based on the Avoid-Minimize/Restore-Offset approach, an operational catalog for nature-based solutions, biosurveillance and monitoring tools using the environmental DNA, work on mapping areas vulnerable to climate change and opportunities offered by the Company's sites in terms of ecological corridors. In 2022, as part of its Sustainab'All program, the Company extended axis 3 of its biodiversity policy to all of its operated entities, which must now all have at least one biodiversity action plan.<br>(Source: 2022 URD, §5.5.4) |
| **Biodiversity Impacts** | | | |
| **EM-EP-160a.2** | Number of hydrocarbon spills | Yes | **49**<br>(Source: 2022 URD, §5.5.2) |
| | Volume of hydrocarbon spills | Yes | **145 $m^3$**<br>(Source: 2022 URD, §5.5.2) |
| | Spills: volume in Arctic | Yes | **0 $m^3$** |
| | Volume impacting shorelines with ESI rankings 8-10 | Yes | **0 $m^3$** |
| | Volume recovered | Yes | **123 $m^3$**<br>(Source: 2022 URD, §5.5.2) |
| **EM-EP-160a.3** | Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat | Yes | **9.7%**<br>of proved reserves are operated reserves located in or near sites with protected conservation status or endangered species habitat |

(1) World Conservation and Monitoring Center of the United Nations Environment Program (UNEP).

<table>
<tr><th>SASB code</th><th>Metrics</th><th>Reported</th><th>TotalEnergies' disclosures (2022)</th></tr>
<tr><td colspan="4">Security, Human Rights & Rights of Indigenous Peoples</td></tr>
<tr><td>EM-EP-210a.1</td><td>Percentage of (1) proved and (2) probable reserves in or near areas of conflict</td><td>Yes</td><td>12.2%<br>(proved reserves)</td></tr>
<tr><td>EM-EP-210a.2</td><td>Percentage of (1) proved and (2) probable reserves in or near indigenous land</td><td>Yes</td><td>1.7%<br>of proved reserves are operated reserves located in or near indigenous land</td></tr>
<tr><td>EM-EP-210a.3</td><td>Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict</td><td>Yes</td><td>The main challenges associated with the effects of the Company's activities in terms of respect for human rights have been identified using the methodology set out in the United Nations Guiding Principles on business and human rights (UNGP) Reporting Framework relating to the "salient issues", that is to say, the human rights at risk of the most severe negative impact through the Company's activities or business relationships.<br><br>On this basis, the Company identified six salient risks subdivided across three key areas:<br>– human rights in the workplace of TotalEnergies' employees as well as of the employees of its suppliers and other business partners:<br>  – forced labor and child labor,<br>  – discrimination,<br>  – just and favorable conditions of work and safety.<br>– human rights and local communities:<br>  – access to land,<br>  – the right to health and an adequate standard of living.<br>– respect for human rights in security-related activities:<br>  – the risk of misuse of force.<br><br>Strong commitments<br><br>TotalEnergies' human rights approach is based on strong and formalized commitments. It is supported by a dedicated organization, and embedded in an awareness-raising and training program, as well as evaluation and follow-up mechanisms aiming at measuring the effectiveness of the Company's actions.<br><br>TotalEnergies is committed in particular to respecting internationally recognized human rights and standards, wherever the Company operates, in particular the Universal Declaration of Human Rights, the Fundamental Conventions of the International Labour Organization (ILO), the U.N. Guiding Principles on Business and Human Rights, the OECD guidelines for multinational enterprises and the Voluntary Principles on Security and Human Rights (VPSHR).<br><br>In 2016, the Company published a Human Rights Briefing Paper in accordance with the recommendations of the United Nations Guiding Principles Reporting Framework, which is available on its website. TotalEnergies was then the first company in the oil and gas industry to do this.<br><br>(Source: 2022 URD, §5.7)</td></tr>
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| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Community Relations** | | | |
| **EM-EP-210b.1** | Discussion of process to manage risks and opportunities associated with community rights and interests | Yes | **Recruiting local people and supporting the development and creation of local businesses**<br>In addition to contributing directly to job creation in the countries where the Company operates (refer to point 5.6 of this chapter), TotalEnergies is committed to recruiting local people and subcontractors whenever its operational constraints so permit.<br>For each industrial project presented to the Executive Committee in accordance with the investment thresholds, TotalEnergies sets itself the target of maximizing local employment and value creation for the host country through procurement, manufacturing and the development of local capacity and skills. New renewable energy projects, in particular offshore wind projects, are gradually integrating this methodology in order to contribute to the development of new industrial sectors and local employment.<br>The methodology involves an analysis of the local context in terms of regulations, stakeholder expectations and local economic and industrial capacities. Based on this analysis, depending on the needs of the project and future operations, existing local capacities, those requiring development support and those not available are determined. The analysis is complemented by working sessions with key suppliers to gather their views on how to mobilise and develop local content.<br>This approach enables to define a strategy for developing local content during the construction phase of the project and in operation. During the construction phase, the strategy incorporates objectives and actions relating to vocational training and support for local businesses. During the construction phase and in operation, key suppliers and their subcontractors are selected if they meet or exceed the local content targets set in the tenders. In order to monitor the achievement of the targets, suppliers and their subcontractors are required to submit a detailed report on their achievements (employment, use of local subcontractors, investments and initiatives in skills development and support to local businesses). This forms the basis for calculating impact: jobs and local value created.<br>This approach has been applied notably to the Tilenga project in Uganda and the EACOP project in Tanzania. In the case of the Tilenga project, the local content development approach should make it possible to:<br>– create approximately 7,800 direct local jobs during the construction phase, of which 60% technicians, 25% workers and 15% managers and engineers, stabilizing at around 3,000 during the operational phase,<br>– create approximately 14,000 indirect local jobs during the construction phase, then approximately 5,000 during the operation phase. A significant portion of these indirect jobs will be created in the project area (Buliisa),<br>– carry out 1.1 million hours of training by the Company and its contractors,<br>– spend approximately 700 million dollars with local suppliers during the construction phase, which is expected to generate up to 1.2 billion dollars in additional national economic wealth(1). During the operation phase, the site is expected to spend approximately 60 million dollars per year with its suppliers, which is expected to generate approximately 100 million dollars in national economic wealth[1].<br>It is currently being rolled out for the Ratawi project in Iraq and the PNG project in Papua New Guinea. Furthermore, analyses of local content during the tender preparation phase for offshore wind projects in Australia and the United States (Oregon) were also carried out in 2022.<br>Since the validation of the new Sustainable procurement program in January 2022, the management of local content and the sharing of value with the host countries in which TotalEnergies' projects are carried out has been at the heart of the Company's Responsible Purchasing approach.<br>In addition, through a program dedicated to young entrepreneurs on the African continent, the Startupper of the Year challenge, TotalEnergies is reaffirming its commitment to supporting the socio-economic development of the countries in which the Company is established. TotalEnergies thus contributes locally to the reinforcement of the social fabric, through the support brought to the most innovative entrepreneurs, in the realization of their project. Following the success of the first contest in 2015-2016 in 34 African countries, the 2018-2019 challenge was extended to 55 countries worldwide. The third edition in 2021-2022 refocused on Africa with the participation of 33 subsidiaries on the continent. More than 13,800 complete applications were filed on the platform in December 2021. In April 2022, around a hundred winners were recognized (three per country) with three awards: best entrepreneur of the year, best start-up less than three years old and best business creation project. |

(1) TotalEnergies study.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Community Relations** | | | |
| **EM-EP-210b.1** | Discussion of process to manage risks and opportunities associated with community rights and interests | Yes | **Anchoring our transformation with the actors of territories and with a will of just transition**<br><br>In France, TotalEnergies is supporting the conversion of its industrial sites and intends to share its transformation ambition with its stakeholders. Since September 2021, a dedicated division has been responsible for forging ties with its local public and private stakeholders and fostering dialogue focused on the regions. The extensive responsibilities of this division are to represent the Company in the regions, to dialogue with stakeholders, to establish partnerships, for example through collaborations with regions and cities, to integrate into the regions by participating in certain regional bodies in close proximity to regional decision-makers, to communicate on the transformation of the Company, involving the Company's segments and the Corporate Foundation. As an illustration, during 2022, in each region, think tanks were set up to engage with stakeholders on regional issues related to the energy transition (acceptability of renewable energies, skills, technological challenges, just transition, etc.): the 34 meetings held brought together nearly 300 participants. Several partnerships have been established with metropolitan areas such as Toulouse and Nice Côte d'Azur to support these regions in their energy transition and economic development. TotalEnergies has also entered into a partnership with the FNSEA (umbrella organization representing local agricultural unions and regional federations) to move forward together for the decarbonization of the agricultural world.<br><br>This division is also in charge of supporting the conversion of the Company's industrial sites as part of its determined efforts to achieve a just transition and to support the energy transition. Thus, the subcontractors of these sites are supported in setting up training and repositioning the skills of their employees in particular toward the new specialties of the energy transition. Support can be offered to employees in their personal business creation projects. Projects led by other industrialists can be supported and subsidized in order to facilitate the establishment of new industrial units. Each project takes into account an analysis of the evolution of the markets in order to restore the competitiveness of the industrial sites over the long term. A Voluntary Agreement for Economic and Social Development (CVDES) is implemented to support the site and its ecosystem (subcontractors, stakeholders, etc.) during this period of change. In this way, TotalEnergies reaffirms its responsibility toward the employment basins in which the Company operates as well as its commitment to maintaining a strong and lasting industrial presence.<br><br>– On the Carling industrial platform, the CVDES relating to the shutting down of the second steam cracker was ended in 2018 with a final commitment of €12 million in grants from TotalEnergies for four industrial projects representing €125 million of investment and 143 jobs created. TotalEnergies also committed to support these industrial projects until the effective start-up of the production units. The Metabolic Explorer and Afyren green chemistry industrial units were inaugurated in September 2021 and September 2022 respectively.<br>– The conversion of the La Mède refinery, involving an initial investment of more than €275 million, has been completed, with the start-up of an 8 MW solar power plant in 2018 and the first French biorefinery in July 2019. The CVDES of La Mède was closed in March 2021. TotalEnergies has supported subcontractors and eight industrial projects and three industrial demonstrators, with the planned creation of nearly 300 jobs.<br>– On the Lacq platform, a specific unit of TotalEnergies researches and examines third-party industrial projects that could join the platform in partnership with the Nouvelle-Aquitaine region, the Pau-Béarn Chamber of Commerce and Industry (CCI), the Chemparc public interest grouping, the Lacq-Orthez district authority and Sobegi. The construction of the green chemistry unit in the name of Alpha Chitin (investment of €14 million and 20 jobs created for the first phase) was completed at the end of 2022. At the end of 2021, the Caremag project for the recycling of rare earths from permanent magnets present in electric motors and the separation of heavy rare earths announced its localization in the Lacq basin. With the addition of a second project to separate heavy rare earths, Caremag now plans to invest €150 million and create 80 to 120 jobs. In addition, an e-methanol project is under consideration. The coordinated resources of local players, including TotalEnergies, have enabled the creation of new sectors of the future linked to the energy transition on the site.<br>– On the Grandpuits platform, TotalEnergies is supporting the project to convert the site into a "zero-oil" platform as announced in September 2020 and representing a planned investment of €500 million. The Grandpuits platform will have four major activities: the transformation of biomass into biofuels, the production of bioplastics, the recycling of plastic waste and the production of photovoltaic energy and its storage in batteries. The CVDES between the public authorities and TotalEnergies sets a budget of nearly €5 million dedicated to supporting the Grandpuits and Gargenville employment areas and, in particular, subcontractors and the creation of new industrial jobs, with a view to a just transition. |

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|---|---|---|---|
| **Community Relations** | | | |
| **EM-EP-210b.1** | Discussion of process to manage risks and opportunities associated with community rights and interests | Yes | Finally, TotalEnergies supports the creation or maintenance of sustainable jobs in France by granting loans to SMEs, particularly those with projects that contribute to the ecological and energy transition. Between 2020 and 2022, loans were granted to 358 SME projects, amounting to a total of €13.7 million, and nearly 10,000 jobs were supported.<br>(Source: 2022 URD, §5.9.1)<br>**Dialogue and local stakeholder involvement**<br>TotalEnergies promotes dialogue with local stakeholders to develop constructive and transparent relationships with them. To this end, TotalEnergies' One MAESTRO framework requires subsidiaries to engage in a structured, regular dialogue with their stakeholders to inform them, listen to them and take their concerns and expectations into account. It also requires subsidiaries to report on actions to avoid, reduce or offset negative impacts, and to measure stakeholder satisfaction and identify areas for improvement. TotalEnergies acknowledges the specificities of the rights of indigenous and tribal peoples (International Labor Organization Convention No. 169) and has developed a framework which defines principles to be followed with these communities. It encourages the use of experts in order to identify and understand these peoples' expectations and specificities, to consult them and to contribute to their socio-economic development. This initiative is also consistent with the United Nations Guiding Principles on Business and Human Rights.<br>In the Refining & Chemicals segment, refineries and petrochemical sites put consultation with stakeholders at the heart of their ongoing improvement strategy and are all ISO14001 certified. Local structures for dialogue have been set up, such as Community Advisory Panels in the United States and specific local committees for certain European platforms (e.g. Feyzin neighbors' conference, La Mède neighbors' meetings and Donges residential committee).<br>Marketing & Services has developed stakeholder engagement tools which are adapted to the diversity of its businesses (oil terminals, filling sites, lubricant plants, road transportation and service stations) which can be easily adapted in a wide variety of contexts and regions.<br>For Exploration & Production projects, dialogue is initiated from the exploration phase, even when TotalEnergies does not have permanent teams on site. Each subsidiary or project develops an engagement plan with stakeholders describing a process for transparent dialogue, as well as the timetable and means of ensuring its implementation. A network of Community Liaison Officers (CLOs) has been rolled out on the ground covering most of the projects to provide information to and consult with neighboring communities, authorities and other local stakeholders, with a particular focus on vulnerable groups. Employed by TotalEnergies, they speak the local languages and understand local customs. Their role is crucial for establishing good relations between TotalEnergies and its stakeholders.<br>(Source: 2022 URD, §5.9.2) |
| **EM-EP-210b.2** | Number and duration of non-technical delays | No | Not aggregated at Company level. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Health & Safety for everyone** | | | |
| EM-EP-320a.1 | Total recordable incident rate (TRIR) | Yes | TRIR: number of recorded injuries per million hours worked – All Personnel 0.67<br>Company employees 0.60<br>Contractors' employees 0.76<br><br>which corresponds to:<br>TRIR All personnel: **0.13** (per 200,000 hours worked)<br>TRIR Company employees: **0.12** (per 200,000 hours worked)<br>TRIR Contractors' employees: **0.15** (per 200,000 hours worked)<br>Note: these rates do not include work-related illnesses<br>(Source: 2022 URD, §5.3.2)<br>Number of occupational illnesses recorded in 2022 for Company employees: **129**<br>(Source: 2022 URD, §5.3.4) |
| | Fatality rate | Yes | **0.77** (per 100 million hours worked)<br>which corresponds to: **0.0015** (per 200,000 hours worked)<br>(Source: 2022 URD, §5.3.2) |
| | Near miss frequency rate (NMFR) | Yes | Number of near miss and anomalies reported: close to 750,000<br>Number of hours worked: 392 million<br>Which correspond to a NMFR (per 200,000 hours worked) of around: **380**<br>(Source: 2022 URD, §5.3.2) |
| | Average hours of health, safety, and emergency response training for full-time employees | Yes | Number of average training days per employee: **3.3** (excluding on the job training)<br>Percentage of training dedicated to HSE: **23%**<br>(Source: 2022 URD, §5.6.2) |
| | Average hours of health, safety, and emergency response training for contract employees | No | Not available.<br>We don't define training needs by individual contract status and categories of employees. |
| | Average hours of health, safety, and emergency response training for short-service employees | No | Not available.<br>We don't define training needs by individual contract status and categories of employees. |
| EM-EP-320a.2 | Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle | Yes | As part of the **policy for preventing workplace accidents**, TotalEnergies has defined rules and guidelines for HSE training, personal protective equipment and high-risk operations for Company employees and contractors working on sites operated by the Company. In order to continually move its practices forward, TotalEnergies also implements a **process for analyzing accidents**, irrespective of their nature, with the method used and the level of detail involved depending on the actual or potential level of severity of the event. By way of example, a near miss with a high severity potential is treated as a severe accident, and its analysis is considered essential factor of progress. Depending on its relevance to other Company entities, it will trigger a safety alert and, depending on the circumstances, the circulation of lessons learned and updating of the reference framework. The reporting of anomalies and near misses (nearly 750,000 in 2022, up on 2021) is strongly encouraged and is permanently monitored. The involvement of each employee in identifying anomalies and dangerous situations is an indicator of employees' vigilance in accident prevention and reflects the safety culture within the Company. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Health & Safety for everyone** | | | |
| **EM-EP-320a.2** | Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle | Yes | The Company's HSE division includes a division of specialists in high-risk operations (work at height, lifting operations, confined spaces, etc.), which consolidates in-house knowledge and relations with contractors, and issues the relevant One MAESTRO rules. The HSE division also includes a division aimed at providing support for subsidiaries in their own voluntary approach to **strengthen their safety culture**. This division also develops and disseminates tools to improve human performance by identifying the Organizational and Human Factors (OHF) of a work situation and defining appropriate measures. Since 2020, a digital platform has hosted these different tools, as well as examples of how to apply them, fact sheets and information about the fundamental concepts of OHF. This platform includes the principles covered by two guides of the One MAESTRO standard, dealing respectively with OHF and Integrated Safety Culture approaches. The implementation of these principles is promoted within the Company through dedicated modules integrated into the training programs for different populations, or through specific training programs at the request of subsidiaries.<br><br>In addition to its One MAESTRO reference framework, the Company has applied 12 Golden Rules for safety at work since 2010. These simple Golden Rules, which can be memorized by everyone and are representative of a high number of accidents in the workplace, must be strictly obeyed by all personnel, both employees and external companies, in all countries and in all the Company's activities. The purpose of the Golden Rules is to protect day-to-day safety in operations and on sites with a common objective: "Zero fatal accidents". In 2022, TotalEnergies reviewed the drafting to its Golden Rules for them to be more directly understandable by players on site and to facilitate their appropriation. These Golden Rules were widely distributed on World Day of Safety, to both employees and external companies. In order to consolidate these new Golden Rules and allow them to be discussed and taken onboard by the teams, a new Golden Rule was highlighted each month, and deployment materials, based on the accidents in the Company, were distributed to the subsidiaries. In addition, the existing Stop Card system enables any employee of the Company or a contractor to intervene if, for example, any of the Golden Rules are not being obeyed. In 2019, the Company also rolled out the *Our lives first: zero fatal accidents* program, which introduced joint safety tours with external companies (10,000 by 2022 on the Company's sites), the establishment, in the work permit process, of a ritual prior to work on all the operated sites concerned (Safety green light - Life Saving Checks) and a tool to intensify checks in the field and measure compliance with safety rules for the five high-risk activities: work at height, lifting operations, work on energy-powered systems, work in confined spaces, hot work (more than 150,000 compliance measures were carried out in this context in 2022 on Company's sites).<br><br>The correct implementation of the One MAESTRO reference framework, and more generally, of all the Company's occupational safety programs, is verified with site visits and **audits**. Contractors' HSE commitment is also monitored by means of a **contractors qualification** and **selection** process. The reference framework states that for a contractor to be authorized to carry out high-risk work on a site operated by a Company subsidiary, its HSE management system needs to be certified by a recognized third-party body or be inspected for compliance. For contractors with a high number of hours worked, a Safety Contract Owner can be appointed from among the senior executives of Company segments or members of executive committees of Company subsidiaries to initiate high-level dialogue with the contractor's management and increase the level of commitment and visibility on HSE issues. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Health & Safety for everyone** | | | |
| **EM-EP-320a.2** | Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle | Yes | Whatever the nature of the health, safety and the environment risks, preventive actions require all employees to adhere to the Company's HSE policy. To this end, TotalEnergies provides **training intended for the various groups** (new arrivals, managers, senior executives and directors) in order to establish a broad-based, consistent body of knowledge that is shared by everyone:<br>– *Safety Pass:* these safety induction courses were started on January 1, 2018 for new arrivals. Various courses exist depending on the position and cover the Company's main HSE risks, the risks linked to the site activities as well as those linked to the workplace. The theoretical content is supplemented by practical life-saving actions training sessions,<br>– *HSE for Managers* is aimed at current or future operational or functional managers within one of the Company's entities. This training was delivered in virtual classroom mode as well as face-to-face in 10 sessions in 2022, in which about 200 managers took part,<br>– *Safety Leadership for Executives* is intended for the Company's senior executives. Its objective is to give senior executives the tools allowing them to communicate and develop a safety culture within their organization. Four sessions were held in 2022 to train approximately 70 Company's senior executives.<br>In order to ensure and reinforce knowledge of the reference framework, a knowledge evaluation tool containing over 3,000 multiple-choice questions was developed in 2018 for use by the HSE managers of subsidiaries, operated sites and their teams. This tool can also be used to determine a suitable training plan, if necessary. Approximately 20 evaluations were carried out in 2022.<br>In addition to training measures, the HSE division hosts regular events on HSE-related topics, with experts and specialists communicating a set of rules and good practices, internal and external, each month. The annual World Day for Safety is another key event. The theme for 2022 was "The Golden Rules: my commitment, our safety". In addition, TotalEnergies encourages and promotes its subsidiaries' safety initiatives. Each year, the Company recognizes and awards the best HSE initiative carried out in a subsidiary.<br>Finally, safety, as a value of TotalEnergies, is taken into account in the **employee compensation policy** (refer to point 5.6.1.2 of this chapter).<br>In terms of **security**, the Company's policy aims to ensure that the Company's people and property are protected from malicious intent or acts. To achieve this, TotalEnergies relies on its Security department, which develops the Company's reference framework and oversees the security situation in the countries in which it operates in order to determine general security measures to be adopted (such as authorization to travel). It also provides support to subsidiaries, particularly in the event of a crisis. The Company's security reference framework applies to all subsidiaries controlled by TotalEnergies. It provides that the security management system for subsidiaries must include the following stages: analysis of the threat, risk assessment, choice of a security posture, implementation of preventive or protective measures, control and reporting and then regular reviews. It must also comply with the requirements of local regulations. The framework requires each subsidiary to develop a security plan, operating procedures and an action plan. Within the framework of developing new activities, the Company's Security department recommends the organization and resources to be deployed in connection with the business segments.<br>In each country in which TotalEnergies operates, the Country Chair is responsible for the security of operations in the country. The Country Chair ensures the deployment of measures and resources, with the support of a Country Security Officer. Subsidiaries' management systems and security plans are checked on a regular basis by the Company's Security department or the Country Chair. Awareness raising and training programs and a centralized system for reporting security events are organized by the Company's Security department.<br>(Source: 2022 URD, §5.3.2) |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Reserves Valuation & Capital Expenditures** | | | |
| EM-EP-420a.1 | Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions | Yes | **Resilience of the organization's strategy**<br><br>Very active management over the last few years has made the Company's portfolio more resilient. A 50% change of the upstream portfolio since 2015 ensures a replacement ratio of the oil reserves above 100% over 2015-21 (without Russia).<br><br>The portfolio benefits from a low breakeven point in line with the strategic objective of less than \$30/b (Company's organic breakeven point before dividend of \$23.2/b in 2022), ensuring competitive resources.<br><br>In particular, in the upstream segment, TotalEnergies has the lowest production cost per barrel and carbon intensity per barrel of oil equivalent (operated Scope 1+2) among its peers, at around \$5/boe and 17 kg $CO_2$/boe in 2022, respectively.<br>**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**<br><br>**Risk of stranded assets**<br><br>In June 2020, TotalEnergies has identified that among its upstream assets only the oil sands projects of Fort Hills and Surmont in Canada can be qualified as "stranded", meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. TotalEnergies decided to consider only proved reserves for the depreciation tests on these two assets - contrary to common practice which considers proved and probable reserves, and not to approve any new project to increase capacities on these Canadian oil sands assets.<br><br>The characteristics of TotalEnergies' portfolio cushion the risk of having stranded assets in the future if a structural decline in demand for hydrocarbons occurs due to stricter global environmental regulations and constraints and a resulting change in consumer preferences.<br><br>**Sensitivity to $CO_2$, oil and gas prices**<br><br>In addition, TotalEnergies assesses its portfolio's resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests. Each material investment – including in the exploration, acquisition and development of oil and gas resources, as well as in other energies and technologies – is reviewed in relation to the objectives of the Paris Agreement[(1)]; each new investment enhances the resilience of the Company's portfolio.<br><br>Even if carbon pricing does not currently apply in all of the Company's host countries, TotalEnergies includes a minimum carbon price of \$100/ton in its investment criteria (or the current price in a given country, if higher), and beyond 2028, an annual increase of 2% is applied. Assuming a carbon price of \$200/ton and an annual increase of 2% beyond 2028 (i.e., a \$100/ton increase from the base scenario), TotalEnergies estimates a negative impact of around 15% on the discounted present value of its assets (upstream and downstream).<br><br>In relation to the reference scenario used to review investments (Brent at \$50/b), application of the IEA's NZE price scenario would lower the discounted present value of the Company's assets (upstream and downstream) by around 15%.<br><br>As shown by the global oil supply cost curves for 2030 and 2040 by comparison with the different IEA scenarios, TotalEnergies' portfolio shows an average technical cost among the least expensive 50 Mb/d in these time horizons, in particular thanks to long-plateau and low production costs oil assets.<br><br>**Depreciations of Upstream assets**<br><br>In addition, to ensure robust accounting of its assets in the balance sheet, the Company assumes an oil price trajectory stabilizing until 2030, decreasing then linearly to reach $\$_{2022}$50/b in 2040 and decreasing after 2040 towards the price retained in 2050 by the NZE scenario published by the IEA in 2022, *i.e.*, $\$_{2022}$25/b. Gas prices used in Europe and Asia decrease and stabilize as from 2027 until 2040 at levels lower than current price levels, with the Henry Hub price staying at $\$_{2022}$3/MBtu during this timeframe. They converge thereafter towards the IEA's NZE scenario prices in 2050.<br><br>(Source: 2022 URD, §5.4.2) |
| EM-EP-420a.2 | Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves | Yes | **3.5 Gt $CO_2$e** |

(1) Refer to point 5.4.3.1 for more details.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Reserves Valuation & Capital Expenditures** | | | |
| **EM-EP-420a.3** | Amount invested in renewable energy, revenue generated by renewable energy sales | Yes | Data are available in chapter 5.4.6.3 of 2022 URD for the three financial indicators : turnover ("Turnover"), capital expenditures ("CapEx") and operating expenditures ("OpEx"), within the meaning of the Taxonomy regulation, on the scope of entities exclusively controlled and consolidated by TotalEnergies SE, for the year 2022.<br>Renewable energy related activities are considered to be the following:<br>– renewable electricity generation (using solar photovoltaic technology / from wind power / from hydropower / storage): 4.1, 4.3, 4.5, 4.10,<br>– manufacture of biogas/biofuels for use in transport: 4.13,<br>– anaerobic digestion of bio-waste: 5.7,<br>– installation, maintenance and repair of renewable energy tech.: 7.6.<br>Definition of financial indicators is given in chapter 5.4.6.1 of 2022 URD.<br>(Source: 2022 URD, §5.4.6.1 and 5.4.6.3) |
| **EM-EP-420a.4** | Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets | Yes | The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, therefore, TotalEnergies has factored this development into its strategy and set itself the ambition of achieving carbon neutrality (net zero emissions) by 2050, together with society.<br>TotalEnergies promotes a policy of reducing GHG emissions based on the following principles in order of priority:<br>– avoid emissions,<br>– reduce them by using the best available technologies,<br>– offset the residual emissions thus minimized.<br>(Source: 2022 URD, §5.4.2) |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Business Ethics & Transparency** | | | |
| **EM-EP-510a.1** | Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index | Yes | **9.4%**<br>(proved reserves) |
| **EM-EP-510a.2** | Description of the management system for prevention of corruption and bribery throughout the value chain | Yes | TotalEnergies is a major player in the energy sector, where public authorities regularly play a role and where the amounts invested may be very high. In addition, the Company is present in close to 130 countries, some of which have a high perceived level of corruption according to the index drawn up by Transparency International. Aware that it is highly exposed to the risk of corruption, TotalEnergies applies a principle of zero tolerance.<br><br>To prevent risks of corruption, TotalEnergies has implemented a robust and regularly updated anti-corruption compliance program. The aim of this program is to promote a culture of compliance and transparency, which is key in ensuring the sustainability of the Company's activities. Failure to comply with such legislation such as the U.S. Foreign Corrupt Practices Act and the French law on transparency, the fight against corruption and the modernization of the economy, is likely to expose the Company to a high criminal, financial and reputation risk, as well as the enforcement of measures such as the review and reinforcement of the compliance program under the supervision of an independent third party.<br><br>The commitment of the entire Company and the efforts undertaken are unrelenting in order to ensure the sustainability and continuous improvement of the anti-corruption compliance program, which the U.S. authorities deemed to be appropriate in 2016, thus putting an end to the monitorship that was introduced in 2013. In June 2022, the Company received the final report prepared by the French Anti-Corruption Agency (AFA) following the control initiated by the Agency late 2020. This report, which confirmed for the Company the overall quality of the Company's program and its maturity, also made recommendations for its improvement. The Company has drawn up a dedicated action plan to respond to the recommendations of the AFA. This action plan is currently being rolled out.<br><br>This compliance program is drawn up by a dedicated organization acting at the Company and business segment levels, namely the Compliance and Legal Risk Management Department, headed by the Chief Compliance Officer, and the Branch Compliance Officers. They coordinate a network of over 360 Compliance Officers in charge of rolling out and running the program at the subsidiaries level. This structured organization lies in close proximity to operational activities while having its own dedicated reporting line.<br><br>TotalEnergies' anti-corruption compliance program is based primarily on the following seven pillars: management commitment or "tone at the top", risk assessment, adoption of internal standards, awareness raising and training of employees, feedback of information, including the whistle-blowing system, mechanisms for assessing and monitoring implementation of the program, and imposition of disciplinary sanctions in the event of misconduct. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Business Ethics & Transparency** | | | |
| **EM-EP-510a.2** | Description of the management system for prevention of corruption and bribery throughout the value chain | Yes | **5.8.1.1 Management commitment**<br><br>The constant high level of commitment by the General Management is reflected by the principle of zero tolerance for corruption that is clearly set out in the Company's Code of Conduct. Managers have a duty to lead by example and are responsible for promoting a culture of integrity and dialogue. This commitment is also expressed in regular statements made by the Chairman and Chief Executive Officer on this subject, as well as through large-scale communication actions, such as the annual Business Ethics Day organized on the occasion of the U.N.'s International Anti-Corruption Day and Human Rights Day. In December 2022, the eighth Ethics Day was devoted to Respect for Each Others. An online speech by the President of the Refining & Chemicals segment, as well as speeches in the same format by the Heads of Compliance, Ethics and Human Rights were made available to employees. The Ethics Day was preceded by a poster campaign aimed at reiterating the importance of this flagship value of the Company.<br><br>The commitment of the management bodies is also expressed externally by TotalEnergies' joining anti-corruption initiatives and supporting collaborative and multi-party approaches. TotalEnergies joined the Partnering Against Corruption Initiative (PACI)[1] in 2016, thereby adhering to the PACI Principles for Countering Corruption. The Chairman and Chief Executive Officer of TotalEnergies SE became a member of the PACI Board in 2018 and subsequently Co-Chairman of the initiative at year-end 2019. TotalEnergies is also a member of other initiatives that contribute to the global effort against corruption, such as the U.N. Global Compact since 2002 and the Extractive Industries Transparency Initiative (EITI)[2] since its launch in 2002.<br><br>**5.8.1.2 Risk assessment**<br><br>To regularly adapt the compliance program to the risks to which TotalEnergies is exposed, these must first be identified and assessed. In addition to the Company's risk mapping, which includes the risk of corruption, specific corruption risk mapping is produced on the basis of a methodology formalized in a rule adopted in early 2020.<br><br>This rule provides for two-tier mapping: that of entities coordinated by the Compliance Officer and that of business segments coordinated by the Branch Compliance Officers. At the business segment level, the assessment needs to examine the main types of risk (purchasing, sales, conflicts of interest, gifts and hospitality, human resources, representatives dealing with public officials, mergers and acquisitions, joint ventures, donations and sponsoring, and influence peddling). This two-tier analysis is aimed at establishing action plans that are appropriate to the risks identified and the realities on the ground. In addition, on the occasion of the assessment of the risks of corruption, tools are made available to employees to help them identify these risks more easily,and produce the corresponding mapping, such as the Typology Guide to risks of corruption and the Methodology Guide to the mapping out of the risks of corruption and influence peddling, published for the latter at the end of 2022. To manage the risks identified during the creation of the risk maps, measures are then put in place and specific rules regularly adopted and incorporated into the Company's reference framework.<br><br>In accordance with the rules in place, the Chief Compliance Officer presented a summary of the mapping of the various business segments to the TotalEnergies Risk Management Committee for the first time in 2021. The same presentation was provided by the Chief Compliance Officer to the Executive Committee in October 2021. In application of this same rule, some of the business segments, whose corruption risk mapping dates back three years, resumed this exercise at the end of 2022. Consequently, it is expected that all the business segments will have reviewed their current risk mapping by mid-2023 and that a summary of these exercises will be presented to the Company's governance bodies, like it was done in 2021.<br><br>**5.8.1.3 Internal standards**<br><br>As an essential element of the Company's reference framework, the Code of Conduct sets out the behavior to be adopted, in particular with regard to the question of integrity. It prohibits corruption, including influence peddling, and advocates zero tolerance in this area. In 2022, it contained even more specific examples of the risks of corruption to which the Company's employees may be exposed.<br><br>The Code of Conduct is complemented by a regularly updated set of anti-corruption standards. This set applies to all companies controlled by the Company in accordance with their respective decision-making rules and subject to the legal and regulatory provisions applicable locally. The Anti-Corruption Compliance Directive recaps the main principles and organizes the roll-out of the anti-corruption program. |

(1) Launched in 2004 within the World Economic Forum, PACI now numbers approximately 90 major corporations and forms a platform for discussion for business leaders and governmental and non-governmental organizations, allowing them to share their experiences and ideas and develop best practices.
(2) The EITI brings together representatives of the governments of the member countries as well as representatives of civil society and business in order to strengthen transparency and governance with regard to income from oil, gas and mineral resources.

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Business Ethics & Transparency** | | | |
| **EM-EP-510a.2** | Description of the management system for prevention of corruption and bribery throughout the value chain | Yes | It deals, among others, with commitment, training and awareness raising, accounting and bookkeeping, the assessment system and whistle-blowing mechanisms. This directive is complemented by rules that deal with more specific subjects in order to prevent the various risks identified.<br><br>In terms of anti-corruption due diligence, the deployment of the computerized supplier qualification tool, which includes the due diligence process resulting from the single rule adopted in 2020, is continuing. Due diligence involves collecting information, identifying any risks of corruption and taking the appropriate mitigation measures. This process is performed by the relevant business people with support from their Compliance Officer, who may call on the Branch Compliance Officer. Particular attention is paid to representatives (agents or others) dealing with public officials for whom the applicable internal rule specifically provides for mandatory due diligence and monitoring by operational staff of contractual relationship with such third parties, which may include the verification of invoices, the control of activity reports or the organization of audits. In addition, the Company has an internal governance system that allows the various business segments to manage, in a uniform and cross-functional manner, the specific case of third parties that would be rejected after due diligence.<br><br>Following the adoption in 2020 of a rule to address the recording and accounting of expenses covered by anti-corruption compliance rules, two guides were published in the summer of 2021 for the accounting and compliance functions.<br><br>Other standards deal with high-risk areas, such as gifts and hospitality, which have to be registered and approved by the line manager above given thresholds; conflicts of interest, which must be reported to the line manager and addressed; anti-corruption measures implemented within joint ventures; and human resources-related processes such as recruitment.<br><br>In general, internal standards are amended to take the regulatory and legislative changes applicable to TotalEnergies into account.<br><br>**5.8.1.4 Awareness raising and training**<br><br>Awareness raising actions are carried out toward all employees. The TotalEnergies intranet contains a section on the fight against corruption which provides employees with various media, e.g. the internal standards and guides such as the booklet entitled "Prevention and fight against corruption". A new poster campaign of the key messages in high-risk areas (such as gifts and invitations, accounting controls and third-party assessments) was organized in 2022.<br><br>Following the online training on anti-corruption in 2011 (season 1), then in 2015 (season 2), which enabled more than 82,000 employees to be trained by the end of 2022, the Company launched a new online training course in mid-2022 (season 3). This training course, which is mandatory for the target populations (approximately 35,000 employees), replaced the two previous seasons. This new training course is based on the assignment of a profile specific to each learner (from beginners to experts), which is determined on the basis of their answers to the questions asked in the introduction to the training course. The profile specific to each learner then allows them to follow the modules best suited to their needs. By the end of 2022, this new online training course, which was launched during the year, had already been completed by more than 31,000 employees.<br><br>At the beginning of 2022, the Executive Committee reviewed all of the online training courses available, particularly in the field of anti-corruption and anti-fraud compliance, and determined the functions deemed to be the most exposed (such as Purchasing and Human Resources) to the risk of corruption. For these populations, more targeted training is provided, either by the Compliance teams of the Company or the segments or by the Compliance Officers. In addition, in 2023, specific webinars are planned to be deployed for these same functions.<br><br>Regarding the anti-corruption and anti-fraud Compliance network, several online and on-site training sessions are organized each year for the Compliance Officers. The Branch Compliance Officers also benefit from annual training days on specific topics.<br><br>**5.8.1.5 Feedback of information**<br><br>Information is mainly escalated as part of an annual reporting process, for which the Company deployed a new dedicated internal tool in 2022. This is performed by the Compliance Officers, reviewed by their Branch Compliance Officer and sent to the Chief Compliance Officer. This reporting helps monitor the roll-out and implementation of the anti-corruption program, through quantitative indicators on key elements of the program, such as the number of training courses or due diligences performed. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Business Ethics & Transparency** | | | |
| **EM-EP-510a.2** | Description of the management system for prevention of corruption and bribery throughout the value chain | Yes | The consolidated data resulting from this reporting, which reflects the results of the implemented policies, is presented once a year to the Executive Committee and the Board of Directors via the Governance and Ethics Committee. This presentation provides an opportunity to report the results of the actions undertaken at the very highest level and to review the road map aligned with the identified areas of improvement.<br><br>In addition, TotalEnergies takes actions in order to develop a speak-up culture and asks its employees to report any situations that they consider to be contrary to the Code of Conduct. This culture is encouraged by regular communication on the rule adopted in late 2020, which formalized the procedure for collecting integrity alerts (corruption, fraud and influence peddling). This rule expressly provides that no disciplinary sanction, nor any direct or indirect discriminatory retaliatory measure, may be taken against the whistleblower, as long as it is made in good faith, and this even in the facts subsequently turn out to be inaccurate or unfounded, and/or not to give rise to any proceedings or sanctions. This rule, combined with the one also adopted in 2020 by the Ethics Committee concerning the collection and processing of reports, covers all situations or behaviors likely to be contrary to the Company's Code of Conduct.<br><br>In this respect, echoing this Code, the rule adopted at the end of 2020 by the Anti-Corruption Compliance recalls the various existing alert channels: each employee can therefore contact any manager, Human Resources, the Compliance Officers or Ethics Officers, or the Ethics Committee, depending on what seems most appropriate. The Ethics Committee is responsible for ensuring compliance with the Code of Conduct. Its Chairperson, who reports to the Chairman and Chief Executive Officer of TotalEnergies SE, presents an annual report on Ethics to the Governance and Ethics Committee of the Board of Directors.<br><br>Both employees and third parties can refer to this Committee by writing to ethics@totalenergies.com. TotalEnergies does not tolerate any retaliation measures or discrimination toward anyone submitting a report in good faith and undertakes to respect confidentiality.<br><br>**5.8.1.6 Assessment and monitoring**<br><br>The anti-corruption program is monitored at the first level by business people, as well as their line managers and the Compliance Officers who are in charge of ensuring the day-to-day implementation of the rules. At the second level, controls are performed by the Compliance function, in particular through assessment missions (referred to as compliance reviews) that are undertaken by a dedicated team within the TotalEnergies Compliance and Legal Risk Management Department. These second-level assessment missions are carried out by an internal team reporting to the Chief Compliance Officer, accompanied by lawyers and external service providers specializing in financial and accounting data analysis. Each year, around twenty of these missions are carried out on the subsidiaries deemed to be most exposed to the risk of corruption on a multi-criteria basis (Transparency International index, date of the last assessment mission, possible incidents in particular). In addition, the Audit and Internal Control Division performs an annual off-site inspection to verify the quality of the reporting performed by the Compliance Officers, as well as missions to check the self-assessment by the entities subject to the Sarbanes-Oxley regulations of their internal control framework. At the third level, this division also helps monitor the anti-corruption program through audits called "assurance audits" performed according to a framework that includes compliance topics. The controls performed in this context by the Audit and Internal Control division are selected on the basis of the results of the risk analysis it carries out prior to each assignment. The controls carried out may relate in particular to the assessment of third parties, the mapping of corruption risks or the disciplinary system. This system is described in full in a guide on control of implementation of the anti-corruption program published in late 2020, which requires the adoption of an "Anti-Corruption Control Plan" (ACCP) within each business segment. This guide was reviewed at the end of 2022 and published at the beginning of 2023, in particular to supplement the examples of tests that may be carried out as part of the ACCP.<br><br>**5.8.1.7 Disciplinary action**<br><br>In line with the principle of zero tolerance and in application of the Code of Conduct and the Anti-Corruption Directive, any infringement of the anti-corruption standards must give rise to disciplinary action, up to dismissal. TotalEnergies' resolve in this matter is repeated in communication media intended for employees as well as on the intranet. This resolve, which results from management commitment, contributes, with the other pillars described above, to the robustness of the anti-corruption compliance program. In 2022, the Company recorded just over 200 integrity incidents (covering fraud - excluding attempts -, corruption or influence peddling) which led -where established and one or more Company employees were involved- to nearly 130 sanctions, up to and including dismissal.<br><br>(Source: 2022 URD, §5.8.1) |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Management of the Legal & Regulatory Environment** | | | |
| **EM-EP-530a.1** | Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry | Partially | **Advocacy and associations**<br><br>Energy transition and limiting global warming are a global challenge. TotalEnergies will be able to take up these challenges only by involving actively its partners in particular through its mobilization with public authorities and professional associations.<br><br>**Mobilization of professional associations**<br><br>TotalEnergies is a member of many professional associations and has published a list of its affiliations since 2016. The Company typically cooperates with these organizations on technical matters, but some also take public stances on climate. The Company ensures that these organizations hold positions aligned with its own, and regularly reviews each organization's stance on the climate issues.<br><br>Since 2019, TotalEnergies has conducted every two years an assessment of the climate-related public positions of the main professional associations of which it is a member in particular on climate issues. A partial review is conducted in the intervening years. A complete review for 2023 is ongoing. For the associations with positions on climate, the Company examines whether they are aligned with its own, based on the following six principles from its applicable Directive:<br>– **Scientific position:** TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change,<br>– **The Paris Agreement:** TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to achieve the objectives of this agreement,<br>– **Carbon price:** TotalEnergies supports the implementation of carbon pricing,<br>– **The development of renewable energies:** TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes and transport, such as hydrogen, carbon capture or the electric vehicle,<br>– **The role of natural gas:** TotalEnergies promotes the role of natural gas as "transition fuel", in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions to move towards the ambition of zero methane emissions,<br>– **The carbon offset mechanisms:** TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid - reduce by using the "best available technologies" - offset residual emissions thus minimized. TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits.<br><br>**Support for government action and climate disclosures**<br><br>TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website.<br>– **In Europe, TotalEnergies supports the "Fit for 55" package** and specifically some of its key components aligned with its strategy and its positions:<br>  – generalization of carbon pricing,<br>  – a large-scale expansion in renewable energies,<br>  – deployment of infrastructure (charging points, hydrogen),<br>  – development of low-carbon fuels and renewables for the transportation sector.<br>Consistent with this support, the Company sent several responses to the European Commission's public consultations on climate in 2022. They are public, and may be viewed online and they address the measurement of emissions from transportation, certification of carbon sinks and renewable energy and solar energy projects. TotalEnergies has expressed its support for the European Union's carbon border adjustment mechanism as part of the EU emissions trading system. In a letter co-signed with Siemens, the Company has also indicated its backing of the European energy union to the President of France and Germany's Chancellor. TotalEnergies also supports the digital action plan supporting the energy transition from the European Round Table for Industry (ERT).<br>– **In the United States**, TotalEnergies supports the implementation of the Inflation Reduction Act and plans to capitalize on that legislation with a faster rollout of operations connected with renewable energies.<br>– **In France**, the Company has joined the EcoWatt initiative led by RTE, the operator of the country's electrical grid, to encourage responsible energy consumption. |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| EM-EP-530a.1 | Discussion of corporate positions related to government regulations and/ or policy proposals that address environmental and social factors affecting the industry | Partially | Consistent with its transparency principle, in 2022, TotalEnergies lent its backing to new climate reporting standards proposed by the US Securities and Exchange Commission (SEC) and the International Sustainability Standards Board (ISSB). The Company is also cooperating with the Science Based Targets initiative that aims to develop standards applicable to its industry in order to identify criteria for compatibility with the goals in the Paris Agreement.<br>(Source: 2022 URD, §5.4.2) |
| **Critical Incident Risk Management** | | | |
| EM-EP-540a.1 | Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1) | Yes | See table below.<br>Tier 1 Process Safety Event rate per 200,000 hours worked is then equal to **0.006**.<br>(Source: 2022 URD, §5.3.1 and 5.3.2) |
| EM-EP-540a.2 | Description of management systems used to identify and mitigate catastrophic and tail-end risks | Yes | To prevent the occurrence of a major industrial accident such as an explosion, fire, leakage of hazardous products or mass leakage that might cause death, physical injury, large-scale pollution or pollution at an environmentally sensitive site, or important damage to property, TotalEnergies implements suitable risk management policies and measures which apply to the operated activities. The Major Risks division of the HSE division provides support in the application of this policy.<br>At year-end 2022, in addition to its drilling and pipeline transportation operations, TotalEnergies had 185 operated sites and zones exposed to such risks. These correspond to all activities relating to hydrocarbon production, whether offshore or onshore, as well as Seveso-classified industrial sites (upper and lower threshold) and their equivalents outside of the European Union (181 sites at the end of 2021 and 186 at the end of 2020).<br>The Company's policy for the management of major industrial accident risks applies from the facilities design stage, and throughout their lifespan, in order to minimize the potential impacts associated with its activities. The policy is described in the One MAESTRO reference framework. It provides for the analysis of the risks related to the Company's industrial operations at each operated site subject to these risks, based on incident scenarios for which the probability of occurrence and the severity of the consequences are assessed. Based on these parameters, a prioritization matrix is used to determine whether further measures are needed. These mainly include preventive measures but can also include mitigation measures. They may be technical or organizational. These analyses are updated periodically, at least every five years, or when facilities are modified. Training on major accident risks is organized at head office and at subsidiary sites for operating staff.<br>**With regard to the design and construction of facilities**, technical standards include applicable regulatory requirements and refer to industry best practices. The construction of the Company's facilities is entrusted to qualified contractors who undergo a demanding internal selection process and who are monitored. In the event of a modification to a facility, the Company's rules define the management process to be adopted.<br>**With regard to the management of operations and integrity of facilities** operated by the Company, formal rules have been set out to prevent specific risks that have been identified either by means of risk analyses or from internal and industry feedback. For specific works, the preliminary risk analysis may lead to the establishment of a permit to work, the process of which, from preparation through to closure, is defined. The Company's reference framework also provides a process to manage the integrity of facilities, which includes, for example, preventive maintenance, facility inspections, identification of safety critical equipment for special monitoring, management of anomalies and downgraded situations, and regular audits. These rules are part of the One MAESTRO reference framework. Operations teams receive regular training in the management of operations in the form of companionship or in-person trainings.<br>For example, in order to control the integrity of **pipelines** operated by the Company, they are subject to periodic surveys such as cathodic protection checks, ground or aerial surveillance or in line inspections. These actions are planned as part of the pipeline monitoring and maintenance programs. These controls and their frequency are reinforced in areas with high human or environmental risks identified by the risk analysis.<br>(Source: 2022 URD, §5.3.1) |

EM-EP-540a.1 data:

| | 2022 | 2021 | 2020 |
|---|---|---|---|
| Loss of primary containment (Tier 1) | 11 | 29 | 30 |
| Million of hours worked – All Personnel | 392 | 389 | 389 |

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **Critical Incident Risk Management** | | | |
| **EM-EP-540a.2** | Description of management systems used to identify and mitigate catastrophic and tail-end risks | Yes | In order to manage any major industrial accident efficiently, TotalEnergies has implemented a **global crisis management system** that is based primarily on an on-call system available 24/7, as well as a dedicated crisis management center at head office that makes it possible to manage two simultaneous crises. The framework provides that subsidiaries draw up plans and procedures for interventions in the event of leaks, fires or explosions and that subsidiaries have to test these at regular intervals.<br><br>The context of the COVID-19 pandemic demonstrated the capacity for resilience of the Company, which used, in various formats, its procedures and methodologies to organize crisis management exercises in person, remotely or in a hybrid format. This was made possible in particular through the continuous deployment of digital crisis units for the head office, segments and subsidiaries, and the deployment of the associated training. The intervention teams at subsidiaries and at head office practice their crisis management activities regularly on the basis of scenarios identified by the risk analyses. These personnel may follow dedicated training depending on their specific functions. In order to maintain training capacity regardless of how the situation developed, training for internal crisis management individuals was delivered either face-to-face or remotely depending on countries' accessibility. In 2022, 371 individuals were thus trained in crisis management in subsidiaries and at head office.<br><br>TotalEnergies also continued to roll out its *Incident Management System* (IMS) at subsidiaries operating liquid hydrocarbon or natural gas exploration and production sites within the Exploration & Production and Integrated Gas, Renewables & Power segments. The IMS is a harmonized system for the management of emergency situations described by a good practices guide of the International Petroleum Industry Environmental Conservation Association (IPIECA) and increasingly being adopted by the major operators. In 2022, 199 employees were trained in the IMS and 7 Exploration-Production subsidiaries carried out a large-scale application exercise, bringing the total number of trained employees to 780 and the number of subsidiaries where the IMS is deployed to 18.<br><br>(Source: 2022 URD, §5.3.1)<br><br>For the transport of oil and gas by sea and river, TotalEnergies maintains a rigorous safety policy rooted primarily in the strict selection of chartered vessels that meet the highest international standards. The vetting of vessels and barges is based in particular on the regulations, best practices and recommendations of the OCIMF[1] and, in Europe, on those of the European Barge Inspection Scheme (EBIS). Tankers and barges are vetted by a single centralized Company entity. The average age of the TotalEnergies time-chartered oil tanker fleet is approximately seven years.<br><br>The Company's operated marine terminals have completed the consolidation of their physical characteristics in the global database that forms part of the OCIMF's Marine Terminal Information System (MTIS), which will make it easier to assess ships' compatibility with ports of call. Additionally, TotalEnergies encourages all operated terminals to use the Marine Terminal Management and Self-Assessment (MTMSA), the framework recommended by the industry to terminal operators to ensure continuous improvement in the safety of their operations. Since October 2020, the One MAESTRO reference framework has required training on SSSCL (Ship Shore Safety Check List) and cargo transfer operations. At year-end 2022, 100% of the subsidiaries operating terminals had staff who had already undergone this training.<br><br>In order to manage a major accidental spill efficiently, TotalEnergies has implemented a global crisis management system that is described in point 5.3.1 of this chapter.<br><br>For the sites operated by the Company exposed to the risk of accidental spills that reach the surface water, this system is supplemented by requirements of the One MAESTRO reference framework. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Company recommendations. The TotalEnergies companies can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills. Thus, in 2022, TotalEnergies contributed to a large-scale European exercise "DOMINO", organized by the French authorities and involving various civil security organizations from several countries as well as different industrial sites (35,000 people mobilized). La Mède site simulated a vegetable oil spill scenario and mobilized various levels of response:<br>– on site and with the Crisis Management Unit with the support of the FOST and the support of the Marseille firemen,<br>– at the Company's headquarters with the Refining & Chemicals segment Crisis Support Unit and the support of the in-house pollution control expertise unit. |

(1) Oil Companies International Marine Forum (OCIMF): An industry forum including the leading international oil companies. This organization manages the Ship Inspection Report (SIRE) Program, which holds and provides access to tanker and river barge inspection reports (Barge Inspection Questionnaire – BIQ).

| SASB code | Metrics | Reported | TotalEnergies' disclosures (2022) |
|---|---|---|---|
| **EM-EP-540a.2** | Description of management systems used to identify and mitigate catastrophic and tail-end risks | Yes | For the oil and gas exploration and production activities, since 2014, subsea capping and subsea containment equipment that can be transported by air have been positioned at various points of the world (South Africa, Brazil, Norway and Singapore). This equipment provides access to solutions that are more readily available in the event of oil or gas blowout in deep offshore drilling operations. From these locations, the equipment can benefit TotalEnergies' operations worldwide. This equipment was developed by a group of nine oil companies, including TotalEnergies, and is managed by Oil Spill Response Ltd (OSRL), a cooperative dedicated to the response to marine pollution by hydrocarbons. Furthermore, since 2018, equipment to facilitate shallow water capping operations, Offset Installation Equipment (OIE), has been positioned in Trieste, Italy. Managed by OSRL, it can be transported by air or boat to anywhere in the world as necessary. In 2022, a preparation and pre-mobilization exercise to the quay (ready to be loaded on a ship) was carried out by TotalEnergies with the aim of continuous improvement of the procedures for mobilizing the means of response in the event of a well incident.<br><br>TotalEnergies has also designed and developed its own capping system ("Subsea Emergency Response System") to stop potential blow-out in drilling or production operations as quickly as possible. Since 2015, equipment has been installed in Angola and the Republic of the Congo, covering the entire Gulf of Guinea region. The equipment was successfully deployed in exercise and live conditions in March 2019 off Nigeria.<br><br>(Source: 2022 URD, §5.5.2) |
| **Activity Metrics** | | | |
| **EM-EP-000.A** | Production of oil | Yes | **1,307 kb/d**<br>(Source: 2022 URD, §2.3) |
| | Production of natural gas | Yes | **1,458 kboe/d**<br>(Source: 2022 URD, §2.3) |
| | Production of synthetic oil | Yes | **0 boe/d** |
| | Production of synthetic gas | Yes | **0 boe/d** |
| **EM-EP-000.B** | Number of offshore sites | Yes | **60**<br>(Assets with entitled production in 2022) |
| **EM-EP-000.C** | Number of terrestrial sites | Yes | **43**<br>(Assets with entitled production in 2022) |

# Glossary

## ABBREVIATIONS

| | |
|---|---|
| **€:** | euro |
| **$ or dollar:** | US dollar |
| **ADR:** | American depositary receipt (evidencing an ADS) |
| **ADS:** | American depositary share (representing a share of a company) |
| **AMF:** | *Autorité des marchés financiers* (French Financial Markets Authority) |
| **API:** | American Petroleum Institute |
| **ATEX:** | explosive atmosphere |
| **CCS:** | carbon capture and storage |
| **CCUS:** | carbon capture utilization and storage (refer to the definition of carbon capture and storage below) |
| **CNG:** | compressed natural gas |
| **$CO_2$:** | carbon dioxide |
| **$CO_2e$:** | equivalent $CO_2$ |
| **CSR:** | corporate and social responsibility |
| **DACF:** | debt adjusted cash flow (refer to the definition of operating cash flow before working capital changes without financial charges below) |
| **ESG:** | Environment, Social and Governance |
| **EV:** | electric vehicle |
| **FLNG:** | floating liquefied natural gas |
| **FPSO:** | floating production, storage and offloading |
| **FSRU:** | floating storage and regasification unit |
| **GHG:** | greenhouse gas |
| **HSE:** | health, safety and the environment |
| **IEA (SDS):** | International Energy Agency (Sustainable Development Scenario) |
| **IFRS:** | International Financial Reporting Standards |
| **IPIECA:** | International Petroleum Industry Environmental Conservation Association |
| **LNG:** | liquefied natural gas |
| **LPG:** | liquefied petroleum gas |
| **NGL:** | natural gas liquids |
| **NGV :** | natural gas vehicle |
| **OML:** | oil mining lease |
| **PPA:** | Power Purchase Agreement (refer to the definition below) |
| **ROACE:** | return on average capital employed |
| **ROE:** | return on equity |
| **SDG:** | Sustainable development goal |
| **SEC:** | United States Securities and Exchange Commission |
| **TCFD:** | task force on climate-related financial disclosures |
| **VCM:** | variable cost margin – Refining Europe |
| **WHRS:** | Worldwide Human Resources Survey |

## UNITS OF MEASUREMENT

| | |
|---|---|
| **b =** | barrel(1) |
| **B =** | billion |
| **Bcm =** | billion of cubic meters |
| **boe =** | barrel of oil equivalent |
| **btu =** | British thermal unit |
| **cf =** | cubic feet |
| **/d =** | per day |
| **Gt $CO_2$ =** | billion of $CO_2$ tons |
| **GW =** | gigawatt |
| **GWac =** | AC gigawatt |
| **GWh =** | gigawatt hour |
| **k =** | thousand |
| **km =** | kilometer |
| **m =** | meter |
| **$m^3$ =** | cubic meter(1) |
| **M =** | million |
| **Mtpa =** | million ton per annum |
| **MW =** | megawatt |
| **PJ =** | petajoule |
| **t =** | (Metric) ton |
| **toe=** | ton of oil equivalent |
| **TWh =** | terawatt hour |
| **W =** | watt |
| **Wac =** | AC (alternating current) watt |
| **Wp =** | watt-peak or watt of peak power |
| **/y =** | per year |

## CONVERSION TABLE

| | |
|---|---|
| **1 acre ≈** | 0.405 hectares |
| **1 b =** | 42 US gallons ≈ 159 liters |
| **1 b/d of crude oil ≈** | 50 t/y of crude oil |
| **1 Bcm/y ≈** | 0.1 Bcf/d |
| **1 km ≈** | 0.62 miles |
| **1 $m^3$ ≈** | 35.3 cf |
| **1 Mt of LNG ≈** | 48 Bcf of gas |
| **1 Mt/y of LNG ≈** | 131 Mcf/d of gas |
| **1 t of oil ≈** | 7.5 b of oil (assuming a specific gravity of 37° API) |
| **1 boe = 1 b of crude oil ≈** | 5,387 cf of gas in 2022(2) (5,378 cf in 2021 and 5,399 cf in 2020) |

(1) Liquid and gas volumes are reported at international standard metric conditions (15 °C and 1 atm).
(2) Natural gas is converted to barrels of oil equivalent using a ratio of cubic feet of natural gas per one barrel. This ratio is based on the actual average equivalent energy content of natural gas reserves during the applicable periods and is subject to change. The tabular conversion rate is applicable to TotalEnergies' natural gas reserves on a Company-wide basis.

## A

### AC watt (Wac)

Refers to the output power achieved by a solar module to the grid. Generally equals to the watt of peak power multiplied by the DC/AC inverter efficiency.

### acreage

Areas in which mining rights are exercised.

### adjusted results

Results using replacement cost, adjusted for special items, excluding the impact of changes for fair value.

### API degree

Scale established by the API to measure oil density. A high API degree indicates light oil from which a high yield of gasoline can be refined.

### appraisal (delineation)

Work performed after a discovery for the purpose of determining the boundaries or extent of an oil or gas field or assessing its reserves and production potential.

### aromatics

Base chemical products, derived from oil, used in the manufacture of polymers. Main aromatics are benzene, toluene and xylene.

### asset retirement (site restitution)

Companies may have obligations related to well-abandonment, dismantlement of facilities, decommissioning of plants or restoration of the environment. These obligations generally result from international conventions, local regulations or contractual obligations.

### associated gas

Gas released during oil production.

### association/consortium/joint venture

Terms used to generally describe a project in which two or more entities participate. For the principles and methods of consolidation applicable to different types of joint arrangements according to IFRS, refer to note 1 to the Consolidated Financial Statements.

## B

### barrel

Unit of measurement of volume of crude oil equal to 42 US gallons or 159 liters.

### barrel of oil equivalent (boe)

Conventional unit for measuring the energy released by a quantity of fuel by relating it to the energy released by the combustion of a barrel of oil.

### biochemical conversion

Conversion of carbonaceous resources through biological transformation (reactions involving living organisms). Fermentation of sugar into ethanol is an example.

### biofuel

Liquid or gaseous fuel that can be used for transport, produced from biomass, and meeting criteria of reducing GHG compared to the fossil reference.

### biogas

Renewable gas produced by the fermentation of organic matter. It can be purified to produce biomethane, which has the same properties as natural gas and can therefore be injected into distribution networks or used as an alternative fuel for mobility (bioCNG or bioLNG).

### bioNGV

NGV composed of biomethane, available in bioCNG and bioLNG.

### biogas (power generation from)

Combustion of gas produced by the fermentation of non-fossil organic matter (biomass).

### biomass

All organic matter from vegetal or animal sources.

### biomethane

Purified biogas, with the same characteristics as natural gas, that can be injected into the transport networks.

### bitumen

Petroleum in a solid or semi-solid state in natural deposits. It usually contains sulfur, heavy metals, and other non-hydrocarbons. Unable to flow naturally in the reservoir because of its high viscosity (typically greater than 10 000 centipoise), its production requires unconventional extraction technologies.

In reference to marketing, Bitumen is produced from the refining of crude oil and is used in the construction industry in particular as a component of asphalt pavements, e.g. for roads, airfields, cycle paths, etc. It is a visco-elastic, adhesive and waterproof material particularly suited to the needs of construction and road sealing products[1].

### block

Area delimited geographically by a country on its territory, offshore or onshore, in the view to exploring for and /or producing hydrocarbons.

### blue hydrogen

Refer to low carbon hydrogen.

### Brent

Quality of crude oil (38° API) produced in the North Sea, from Brent and neighboring fields.

### brownfield project

Project concerning developed existing fields.

## C

### capacity of treatment

Annual crude oil treatment capacity of the atmospheric distillation units of a refinery.

### carbon capture, use and storage or CCUS

Technologies designed to reduce GHG emissions by capturing (C) $CO_2$ and then compressing and transporting it either to use (U) it for various industrial processes (e.g., enhanced recovery of oil or gas, production of chemical products), or to permanently store (S) it in deep geological formations.

### carbon sinks

Natural reservoir (e.g. vegetation, oceans) or artificial reservoir (e.g. CCUS) that stores carbon in different forms.

### catalysts

Substances that increase a chemical reaction speed. During the refining processes, they are used in conversion units (reformer, hydrocracker, catalytic cracker) and desulphurization units. Principal catalysts are precious metals (platinum) or other less noble metals such as nickel and cobalt.

### CNG (compressed natural gas)

Natural gas compressed between 200 and 300 bars in gaseous form and which can be stored at ambient temperature.

### cogeneration

Simultaneous generation of electrical and thermal energies from a combustible source (gas, fuel oil or coal).

(1) Partial source : Eurobitume.

#### coker (deep conversion unit)

Unit that produces light products (gas, gasoline, diesel) and coke through the cracking of distillation residues.

#### combined cycle power plant

A combined-cycle power plant uses both a heat and a steam turbine together to produce up to 50% more electricity from the same fuel than a traditional simple-cycle plant.

#### commercial gas

Gas produced by the upstream facilities and sent directly or indirectly to the gas market.

#### concession contract

Exploration and production contract under which a host country grants to an oil and gas company (or a consortium) the right to explore a geographic area and develop and produce potential reserves. The oil and gas company (or consortium) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to the entire production.

#### condensates

Light hydrocarbon products produced with natural gas that exist – either in a gaseous phase or in solution – in the oil and gas under the initial pressure and temperature conditions in the reservoir, and which are recovered in a liquid state in separators, on-site facilities or gas treatment units.

#### condensate splitter

Unit that distillates condensates upstream of refining or petrochemical units.

#### consortium

Refer to the definition above of "association/consortium/joint venture".

#### conversion

Refining operation aiming at transforming heavy products (heavy fuel oil) into lighter or less viscous products (e.g., gasoline, jet fuels).

#### co-processing

Refers to the simultaneous conversion of biogenic residues and intermediate petroleum distillates in existing petroleum refineries to produce renewable hydrocarbon fuels. In contrast to the blending of biofuels into the finished petroleum product, co-processing makes use of biomass within the processing of petroleum. Suitable feedstocks for co-processing are biogenic feedstocks, such as wood pyrolysis oil or triglycerides such as vegetable oils, used cooking oils etc.

#### cost oil/gas

In a production sharing contract, the portion of the oil and gas production made available to the contractor (contractor group) and contractually reserved for reimbursement of exploration, development, operation and site restitution costs ("recoverable" costs). The reimbursement may be capped by a contractual cost stop that corresponds to the maximum share of production that may be allocated to the reimbursement of costs.

#### cracking

Refining process that entails converting the molecules of large, complex, heavy hydrocarbons into simpler, lighter molecules using heat, pressure and, in some cases, a catalyst. A distinction is made between catalytic cracking and steam cracking, which uses heat instead of a catalyst. Cracking then produces ethylene and propylene, in particular.

#### crude oil

A mixture of compounds (mainly pentanes and heavier hydrocarbons) that exists in a liquid phase at original reservoir temperature and pressure and remains liquid at atmospheric pressure and ambient temperature.

### D

#### debottlenecking

Change made to a facility to increase its production capacity.

#### desulphurization unit

Unit in which sulphur and sulphur compounds are eliminated from mixtures of gaseous or liquid hydrocarbons.

#### development

Operations carried out to access the proved reserves and set up the technical facilities for extraction, processing, transportation and storage of the oil and gas: drilling of development or injection wells, platforms, pipelines, etc.

#### distillates

Products obtained through the atmospheric distillation of crude oil or through vacuum distillation. Includes medium distillate such as aviation fuel, diesel fuel and heating oil.

### E

#### e-fuels (or synthetic carbonaceous fuels)

Fuels, compatible with combustion engines, obtained from the combination of green hydrogen and $CO_2$ captured from factories or air emissions. Where there were two uses that emitted $CO_2$ (the power plant, the transport that burns the fossil fuel in its engine), there is now only one use that emits $CO_2$ to the atmosphere (the transport that burns the synthetic fuel in its engine while emitting $CO_2$), that is to say a global reduction of 50%.

#### effective tax rate

(Tax on adjusted net operating income)/(adjusted net operating income – income from equity affiliates – dividends received from investments – impairment of goodwill + tax on adjusted net operating income).

#### effect of changes in fair value

The effect of changes in fair value presented as an adjustment item reflects, for some transactions, differences between internal measures of performance used by TotalEnergies' Executive Committee and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices. Furthermore, TotalEnergies, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in the Company's internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

#### energy mix

The various energy sources used to meet the demand for energy.

#### ethane

A colorless, odorless combustible gas of the alkanes class composed of two carbon atoms found in natural gas and petroleum gas.

#### ethanol

Also commonly called ethyl alcohol or alcohol, ethanol is obtained through the fermentation of sugar (beetroot, sugarcane) or starch (grains). Ethanol has numerous food, chemical and energy (biofuel) applications.

#### ethylene/propylene

Petrochemical products derived from cracking naphtha or light hydrocarbons and used mainly in the production of polyethylene and polypropylene, two plastics frequently used in packaging, the automotive industry, household appliances, healthcare and textiles.

## F

**fair value**

Fair value is the price that would be received to sell an asset or paid to transfer a liability in a transaction under normal conditions between market participants at the measurement date.

**farmdown**

Partial sale to a third party of an interest in an asset.

**farm-in (or farm-out)**

Acquisition (or sale) of all or part of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts.

**farnesene**

A hydrocarbon molecule containing 15 carbon atoms, which can be used to produce fuel or chemical compounds.

**FEED studies (front-end engineering design)**

Studies aimed at defining the project and preparing for its execution. In the TotalEnergies process, this covers the pre-project and basic engineering phases.

**FLNG (floating liquefied natural gas)**

Floating unit permitting the liquefaction of natural gas and the storage of LNG.

**fossil energies**

Energies produced from oil, natural gas and coal.

**FPSO (floating production, storage and offloading)**

Floating integrated offshore unit comprising the equipment used to produce, process and store hydrocarbons and offload them directly to an offshore oil tanker.

**FSRU (floating storage and regasification unit)**

Floating unit permitting the storage of LNG and the regasification.

## G

**gearing ratio**

Net debt / (Net debt + shareholders equity Company share + Non-controlling interests).

**gearing ratio excluding leases commitments**

Net debt excluding leases commitments / (Net debt excluding leases commitments + shareholders equity Company share + Non-controlling interests).

**green electricity**

Electricity produced from renewable sources

**green ammonia**

Ammonia produced from green hydrogen.

**green hydrogen**

Refer to low carbon hydrogen.

**greenfield project**

Project concerning fields that have never been developed.

**gross capacity**

Capacity expressed on a 100% basis regardless of the ownership share in the asset.

**gross investments**

Investments including acquisitions and increases in non-current loans.

## H

**hydraulic fracturing**

Technique that involves fracturing rock to improve its permeability.

**hydrocarbons**

Molecules composed principally of carbon and hydrogen atoms. They can be solid such as asphalt, liquid such as crude oil or gaseous such as natural gas. They may also include compounds with sulphur, nitrogen, metals, etc.

**hydrocracker**

A refinery unit that uses catalysts and extraordinarily high pressure, in the presence of surplus hydrogen, to convert heavy oils into lighter fractions.

## I

**Infill well**

Well added to the existing productive wells in order to accelerate and/or improve hydrocarbon recovery.

**inventory valuation effect**

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its competitors. In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differentials between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost methods.

## J

**joint venture**

Refer to the definition above of "association/consortium/joint venture".

## L

**lignocellulose**

Lignocellulose is the main component of the wall of plant cells. It can be sourced from agricultural and farming wastes or by-products of wood transformation as well as dedicated plantations and constitutes the most abundant renewable carbon source on the planet. This abundance and its composition (very rich in polymerized sugars) makes it an excellent choice to produce biofuels. As a result, its conversion, whether by thermochemical (e.g., gasification) or biochemical techniques, is widely studied.

**liquids**

Liquids consist of crude oil, bitumen, condensates and NGL.

#### LNG (liquefied natural gas)

Natural gas which has been liquefied by cooling to a temperature of approximately -160 °C which allows its volume to be reduced by a factor of almost 600 in order to transport it.

#### LNG bunkering

Specific type of operation where the LNG is transferred from a determined distribution source (e.g., bunkering ship, LNG terminal) to an LNG-fueled vessel.

#### LNG production capacity

LNG production average capacity expressed in millions of tons per year (Mt/y) on a 100% basis, taking into account temperature variations over the year and without considering facilities availability. The **nameplate capacity** which corresponds to the facilities design, defined in project phase is different from the **actual capacity** which corresponds to capacity tests on existing facilities.

#### LNG train

Installation forming part of a liquefaction plant and allowing the separation of natural gas from other gases such as acid gases and LPG, to then liquefy it and finally store it, before loading on to the LNG carriers.

#### LNG carrier

Vessel specially designed for the transport of LNG and equipped with tanks which enable to minimize thermal losses in order to maintain the LNG in a liquid state.

#### low-carbon or clean hydrogen

Regroups blue hydrogen (hydrogen produced notably from natural gas via the steam reforming process associated with a capture and storage (CCS) process of the $CO_2$ emissions presenting a carbon footprint lower than 36.4 g $CO_2$/MJ) and green hydrogen (hydrogen produced from renewable electricity via the water electrolysis process).

#### LPG (liquefied petroleum gas)

Light hydrocarbons (comprised of butane and propane, belonging to the alkanes class and composed of three and four carbon atoms respectively) that are gaseous under normal temperature and pressure conditions and that are kept in liquid state by increasing the pressure or reducing the temperature. LPG is included in NGL.

### M

#### microgrid

Small power grids designed to provide a reliable and better-quality power supply to a small number of consumers. They combine multiple local and diffuse production facilities (micro-turbines, fuel cells, small diesel generators, photovoltaic panels, wind turbines, small hydropower), consumption facilities, storage facilities, and supervision and monitoring tools to manage demand.

#### mining interests

Rights to explore for and/or produce oil and gas in a specific area for a fixed period. Covers the concepts of "permit", "license", "title", etc.

### N

#### naphtha

Heavy gasoline used as a base in petrochemicals.

#### natural gas

Mixture of light gaseous hydrocarbons extracted from underground reservoirs. It is mainly composed of methane, but can also contain ethane up to 10%, one or two carbon atoms, and other compounds in small quantities.

#### natural gas liquids (NGL)

A mixture of light hydrocarbons that exist in the gaseous phase at room temperature and pressure and are recovered as liquid in gas processing plants. NGL include very light hydrocarbons (ethane, propane and butane).

#### natural gas for vehicles (NGV)

Natural gas used as vehicle fuel, mainly in the form of LNG or CNG.

#### nature-based solutions

Sustainable management and use of nature for tackling socio-environmental challenges. Solutions are inspired and supported by nature, cost-effective, provide environmental, social and economic benefits, and help build resilience to environmental challenges.

#### net cash flow

Cash flow from operating activities before working capital changes at replacement cost – net investments (including other transactions with non-controlling interests).

#### net financial debts

Non-current financial debts, including current portion, current borrowings, other current financial liabilities less cash and cash equivalents and other current financial assets.

#### net investments

Organic investments + net acquisitions.

#### net zero emissions

A balance between greenhouse gas emissions and anthropogenic removals in the form of greenhouse gas sinks and reservoirs, such as forests and $CO_2$ capture and storage facilities.

### O

#### offshore wind

The use of wind farms constructed in bodies of water, usually in the ocean, to harvest wind energy to generate electricity. Higher wind speeds are available offshore compared to on land, so offshore wind power's electricity generation is higher per amount of capacity installed.

#### oil

In the Upstream hydrocarbons activities, generic term designating crude oil, condensates and NGL.

#### oil and gas

Generic term which includes all hydrocarbons (e.g., crude oil, condensates, NGL, bitumen and natural gas).

#### oil sands

Sandstones containing natural bitumen.

#### olefins

Group of products (gas) obtained after cracking of petroleum streams. Olefins are ethylene, propylene and butadiene. These products are used in the production of large plastics (polyethylene, polypropylene, PVC, etc.), in the production of elastomers (polybutadiene, etc.) or in the production of large chemical intermediates.

#### OPEC

Organization of the Petroleum Exporting Countries.

**oil & gas facilities**

Company's facilities, excluding combined-cycle natural gas power plants.

**operated production**

Total quantity of oil and gas produced on fields operated by the Company.

**operating cash flow before working capital changes**

Cash flow from operating activities before changes in working capital at replacement cost excluding the mark-to-market effect of iGRP's contracts and including capital gain from renewable projects sale (effective first quarter 2020).

**operating cash flow before working capital changes without financial charges (DACF)**

Cash flow from operating activities before changes in working capital at replacement cost, excluding the mark-to-market effect of iGRP's contracts, including capital gain from renewable projects sale (effective first quarter 2020) and without financial charges.

**operator**

Partner of an oil and gas joint venture in charge of carrying out the operations on a specific area on behalf of the partners within a joint venture. A refinery is also said to be operated by a specific partner when the operations are carried out by the partner on behalf of the joint venture that owns the refinery.

**organic investments**

Net investments, excluding acquisitions, asset sales and other operations with non-controlling interests.

## P

**permit**

Area contractually granted to an oil and gas company (or a consortium) by the host country for a defined period to carry out exploration work or to exploit a field.

**petcoke (or petroleum coke)**

Residual product remaining after the improvement of very heavy petroleum cuts. This solid black product consists mainly of carbon and can be used as fuel.

**polymers**

Molecule composed of monomers bonded together by covalent bonds, such as polyolefins obtained from olefins or starch and proteins produced naturally.

**Power Purchase Agreement (PPA)**

Long-term agreement for the supply of electricity produced from renewable sources.

**pre-dividend organic cash breakeven**

Brent price for which the operating cash flow before working capital changes covers the organic investments.

**price effect**

The impact of changing hydrocarbon prices on entitlement volumes from production sharing contracts and on economic limit dates.

**production costs**

Costs related to the production of hydrocarbons in accordance with FASB ASC 932-360-25-15.

**production plateau**

Expected average stabilized level of production for a field following the production build-up.

**production sharing contract/agreement (PSC/PSA)**

Exploration and production contract under which a host country or, more frequently, its national company, transfers to an oil and gas company (the contractor) or a consortium (the contractor group) the right to explore a geographic area and develop the fields discovered. The contractor (or contractor group) undertakes the execution and financing, at its own risk, of all operations. In return, it is entitled to a portion of the production, called cost oil/gas, to recover its expenditures and investments. The remaining production, called profit oil/gas, is then shared between the contractor (contractor group), and the national company and/or host country.

**project**

As used in this document, "project" may encompass different meanings, such as properties, agreements, investments, developments, phases, activities or components, each of which may also informally be described as a "project". Such use is for convenience only and is not intended as a precise description of the term "project" as it relates to any specific governmental law or regulation.

**proved permit**

Permit for which there are proved reserves.

**proved reserves (1P reserves)**

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with a reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

**proved developed reserves**

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

**proved undeveloped reserves**

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered with new investments (new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion, surface facilities).

**[REDACTED SECTION: CERTAIN TEXT HAS BEEN REDACTED.]**

## R

### refining

The various processes used to produce petroleum products from crude oil (e.g., distillation, reforming, desulphurization, cracking).

### regasification

Before the gas is transported from the terminal to the distribution networks, the LNG is regasified: its temperature is raised from -160 °C to 0 °C under high pressure.

### renewable diesel

Premium-quality diesel fuel that is made completely from renewable and sustainable biomass, including vegetable oils and wastes and residues from animal fat as well as used cooking oils. Thanks to its specific production process, renewable diesel has an identical chemical composition than diesel and, as a result, can be used in high concentrations and even as a standalone product in any diesel-powered vehicle without any change in infrastructure. The greenhouse gas emissions of renewable diesel are strongly reduced (more than 50%) compared to those of fossil diesel and the use of renewable diesel also improves quality of local air with particle and nitrogen oxide reduction.

### renewable/renewable energy

An energy source the inventories of which can be renewed or are inexhaustible, such as solar, wind, hydraulic, biomass and geothermal energy.

### reserve life

Synthetic indicator calculated from data published under ASC 932. Ratio of the proved reserves at the end of the period to the production of the past year.

### reserves

Estimated remaining quantities of oil and gas and related substances expected to be economically producible, as of a given date, by application of development projects to known accumulations.

### reservoirs

Porous, permeable underground rock formation that contains oil or natural gas.

### resource acquisitions

Acquisition of a participating interest in an oil and gas mining property by way of an assignment of rights and obligations in the corresponding permit or license and related contracts, with a view to producing the recoverable oil and gas.

### return on average capital employed (ROACE)

Ratio of adjusted net operating income to average capital employed at replacement cost between the beginning and the end of the period.

### return on equity (ROE)

Ratio of adjusted consolidated net income to average adjusted shareholders' equity (after distribution) between the beginning and the end of the period. Adjusted shareholders' equity for a given period is calculated after distribution of the dividend (subject to approval by the Shareholders' Meeting).

### Risked service contract

Service contract where the contractor bears the investments and the risks. The contractor usually receives a portion of the production to cover the refund of the investments and the related interests, and a monetary remuneration linked to the performance of the field.

## S

### seismic

Method of exploring the subsoil that entails methodically sending vibration or sound waves and recording their reflections to assess the type, size, shape and depth of subsurface layers.

### seismic acquisition

Field campaign consisting of acquiring geophysical data, offshore or onshore, with a view to imaging the subsurface and implanting exploration, development or production wells.

### shale gas

Natural gas in a source rock that has not migrated to a reservoir.

### shale oil

Oil in a source rock that has not migrated to a reservoir.

### shipping

Transport by sea. LNG is carried out on board LNG carriers (see definition).

### sidetrack

Well drilled from a portion of an existing well (and not by starting from the surface). It is used to get around an obstruction in the original well or resume drilling in a new direction or to explore a nearby geological area.

### silicon

The most abundant element in Earth's crust after oxygen. It does not exist in a free state but in the form of compounds such as silica, which has long been used as an essential element of glass. Polysilicon (or crystalline silicon), which is obtained by purifying silicon and consists of metal-like crystals, is used in the construction of photovoltaic solar panels, but other minerals or alloys may be used.

### special items

Due to their unusual nature or particular significance, certain transactions qualifying as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. In certain instances, transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to recur in following years.

### special fluids

Extremely purified, high-tech petroleum products, used in such diverse applications as paint, mastics, drilling fluids, cosmetics, water treatment and crop protection, print inks as well as tires and vaccines.

### steam cracker

A petrochemical plant that turns naphtha and light hydrocarbons into ethylene, propylene, and other chemical raw materials.

### sustainable aviation fuel (SAF)

Molecules aiming to be incorporated into conventional fossil-based aviation fuel.

It can be made through different technologies and from different feedstocks:

- biomass, e.g. waste and residues sourced from the circular economy such as used cooking oils (pursuant to regulations applicable in the various countries) via a mature technology available at industrial scale;
- green hydrogen and $CO_2$ (named e-fuels), via a technology still under development

As of today, SAF is not used pure, but is incorporated in varying proportions up to 50% into conventional fossil-based aviation fuel. Incorporation rates vary depending on airlines requests and/or regulations applicable in the different countries. For instance, in France, since January, 1st 2022, regulation sets a 1% incorporation rate, and 1.5% starting January, 1st 2024.

SAF may allow a reduction of up to 90% $CO_2$ emissions over its full lifecycle, compared with its fossil equivalent (pursuant to European directive 2018/2001 on the promotion of the use of energy from renewable sources, named RED II).

## T

**technical costs**

Ratio (Production costs* + exploration expenses + DD&A*)/production of the year. *Excluding non-recurrent items.

**thermochemical conversion**

Conversion of carbonaceous resources (gas, coal, biomass, waste, $CO_2$) through thermal transformation (chemical reactions controlled by the combined action of temperature, pressure and often of a catalyst). Gasification is an example.

**tight gas**

Natural gas trapped in very low-permeable reservoir.

**turnaround**

Temporary shutdown of a facility for maintenance, overhaul and upgrading.

## U

**unconventional hydrocarbons**

Oil and gas that cannot be produced or extracted using conventional methods. These hydrocarbons generally include shale gas, coal bed methane, gas located in very low-permeable reservoirs, methane hydrates, extra heavy oil, bitumen and hydrocarbons generated from oil shale.

**unitization**

Creation of a new joint venture and appointment of a single operator for the development and production as single unit of an oil or gas field involving several permits/licenses or countries.

**unproved permit**

Permit for which there are no proved reserves.

**Upstream hydrocarbons activities**

The Company Upstream hydrocarbons activities include the oil and gas exploration and production activities of the Exploration & Production and the Integrated Gas, Renewables & Power segments. They do not include power generation facilities based on renewable sources or natural gas such as combined-cycle natural gas power plants.

## V

**variable cost margin, Refining Europe**

This indicator represents the average margin on variable costs realized by TotalEnergies' European refining business. It is equal to the difference between the sales of refined products realized by TotalEnergies' European refining and the crude purchases as well as associated variable costs, divided by refinery throughput in tons.

The previous ERMI indicator was intended to represent the margin after variable costs for a hypothetical complex refinery located around Rotterdam in Northern Europe that processes a mix of crude oil and other inputs commonly supplied to this region to produce and market the main refined products at prevailing prices in this region.

## W

**watt-peak or watt of peak power (Wp)**

Refers to the output power achieved by a solar module under full solar radiation (under Standard Test Conditions).

# Disclaimer

Unless otherwise stated, the terms "TotalEnergies", "TotalEnergies company" and "Company" in this document are used to designate TotalEnergies SE and the consolidated entities directly or indirectly controlled by TotalEnergies SE. Likewise, the words "we", "us" and "our" may also be used to refer to these entities or their employees. The entities in which TotalEnergies SE directly or indirectly owns a shareholding are separate and independent legal entities. The term "Corporation" as used in this document exclusively refers to TotalEnergies SE, which is the parent company of the Company.

This document contains references to websites (including the TotalEnergies website) and the Sustainability & Climate – Progress Report 2023. These references are for the readers' convenience only. TotalEnergies is not incorporating by reference into this document any information posted on any website mentioned or in the Sustainability & Climate - Progress Report 2023, unless otherwise stated.

This document may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, notably with respect to the financial condition, results of operations, business activities and industrial strategy of TotalEnergies. This document may also contain statements regarding the perspectives, objectives, areas of improvement and goals of TotalEnergies, including with respect to climate change and carbon neutrality (net zero emissions). An ambition expresses an outcome desired by TotalEnergies, it being specified that the means to be deployed do not depend solely on TotalEnergies. These forward-looking statements may generally be identified by the use of the future or conditional tense or forward-looking words such as "envisions", "intends", "anticipates", "believes", "considers", "plans", "expects", "thinks" "targets", "aims" or similar terminology. Such forward-looking statements included in this document are based on economic data, estimates and assumptions prepared in a given economic, competitive and regulatory environment and considered to be reasonable by TotalEnergies as of the date of this document.

These forward-looking statements are not historical data and should not be interpreted as assurances that the perspectives, objectives or goals announced will be achieved. They may prove to be inaccurate in the future, and may evolve or be modified with a significant difference between the actual results and those initially estimated, due to the uncertainties notably related to the economic, financial, competitive and regulatory environment, or due to the occurrence of risk factors, such as, notably, the price fluctuations in crude oil and natural gas, the evolution of the demand and price of petroleum products, the changes in production results and reserves estimates, the ability to achieve cost reductions and operating efficiencies without unduly disrupting business operations, changes in laws and regulations including those related to the environment and climate, currency fluctuations, as well as economic and political developments, changes in market conditions, loss of market share and changes in consumer preferences, or pandemics such as the COVID-19 pandemic. Additionally, certain financial information is based on estimates particularly in the assessment of the recoverable value of assets and potential impairments of assets relating thereto.

Neither TotalEnergies SE nor any of its subsidiaries assumes any obligation to update publicly any forward-looking information or statement, objectives or trends contained in this document whether as a result of new information, future events or otherwise. The information on risk factors that could have a significant adverse effect on TotalEnergies' business, financial condition, including its operating income and cash flow, reputation, outlook or the value of financial instruments issued by TotalEnergies, is provided in this document (chapter 3).

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TotalEnergies. In addition to IFRS measures, certain alternative performance indicators are presented, such as performance indicators excluding the adjustment items described below (adjusted operating income, adjusted net operating income, adjusted net income), return on equity (ROE), return on average capital employed (ROACE), gearing ratio, operating cash flow before working capital changes, the shareholder rate of return. These indicators are meant to facilitate the analysis of the financial performance of TotalEnergies and the comparison of income between periods. They allow investors to track the measures used internally to manage and measure the performance of TotalEnergies.

These adjustment items include:

**(i) Special items**

Due to their unusual nature or particular significance, certain transactions qualified as "special items" are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. In certain instances, transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may qualify as special items although they may have occurred in prior years or are likely to recur in following years.

**(ii) Inventory valuation effect**

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of TotalEnergies' principal competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end price differentials between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost.

**(iii) Effect of changes in fair value**

The effect of changes in fair value presented as an adjustment item reflects, for some transactions, differences between internal measures of performance used by TotalEnergies' management and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

TotalEnergies, in its trading activities, enters into storage contracts, whose future effects are recorded at fair value in TotalEnergies' internal economic performance. IFRS precludes recognition of this fair value effect.

Furthermore, TotalEnergies enters into derivative instruments to risk manage certain operational contracts or assets. Under IFRS, these derivatives are recorded at fair value while the underlying operational transactions are recorded as they occur. Internal indicators defer the fair value on derivatives to match with the transaction occurrence.

The adjusted results (adjusted operating income, adjusted net operating income, adjusted net income) are defined as replacement cost results, adjusted for special items, excluding the effect of changes in fair value.

Euro amounts presented for the fully adjusted-diluted earnings per share represent dollar amounts converted at the average euro-dollar (€-$) exchange rate for the applicable period and are not the result of financial statements prepared in euros.

Cautionary Note to US Investors – The SEC permits oil and gas companies, in their filings with the SEC, to separately disclose proved, probable and possible reserves that a company has determined in accordance with SEC rules. We may use certain terms in this document, such as "potential reserves" or "resources", that the SEC's guidelines strictly prohibit us from including in filings with the SEC. US investors are urged to consider closely the disclosure in the Form 20-F of TotalEnergies SE, File N° 1-10888, available from us at 2, place Jean Millier – Arche Nord Coupole/Regnault – 92078 Paris-La Défense Cedex, France, or at our website totalenergies.com. You can also obtain this form from the SEC by calling 1-800-SEC-0330 or on the SEC's website sec.gov.

TotalEnergies SE
Registered office:
2, place Jean Millier – La Défense 6
92400 Courbevoie – France

Reception:
+33 (0)1 47 44 45 46
Investor Relations:
+33 (0)1 47 44 46 46
Individual Shareholders Relations:
0800 039 039 from France
+33 (0) 1 47 44 24 02 from other countries

Share capital:
€6,225,655,060.00
542 051 180 RCS Nanterre

totalenergies.com

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**EXHIBIT 15.2**

**TotalEnergies SE**

**Consent of Independent Registered Public Accounting Firms**

We hereby consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statements on Form F-3 (File Nos. 333-255641, 333-255641-01, 333-255641-02 and 333-255641-03) of TotalEnergies SE (formerly Total SE), TotalEnergies Capital International (formerly Total Capital International), TotalEnergies Capital Canada Ltd. (formerly Total Capital Canada Ltd.) and TotalEnergies Capital (formerly Total Capital), and

(2) Registration Statement on Form S-8 (File No. 333-264261) pertaining to the TotalEnergies Holdings USA, Inc. 2022 Employee Shareholder Plan.

of our reports dated March 21, 2023, with respect to the consolidated financial statements of TotalEnergies SE and subsidiaries and the effectiveness of internal control over financial reporting of TotalEnergies SE and subsidiaries, included in this Annual Report (Form 20-F) of TotalEnergies SE for the year ended December 31, 2022.

Neuilly-sur-Seine and Paris-La Défense, France
March 23, 2023

| | |
|---|---|
| By: /s/ PricewaterhouseCoopers Audit | By : /s/ ERNST & YOUNG Audit |
| PricewaterhouseCoopers Audit | ERNST & YOUNG Audit |

**EXHIBIT 15.3**

***KPMG S.A.***

Tour EQHO
2 avenue Gambetta
CS 60055
92066 Paris La Défense Cedex
S.A. au capital de €5 497 100
775 726 417 R.C.S. Nanterre

Commissaire aux Comptes
Membre de la compagnie
régionale de Versailles et du Centre

**ERNST & YOUNG Audit**
Tour First
TSA 14444
92037 Paris-La Défense cedex
France
S.A.S à capital variable
344 366 315 R.C.S Nanterre

Commissaire aux comptes
Membre de la compagnie
régionale de Versailles et du Centre

**TotalEnergies SE**

**Consent of Independent Registered Public Accounting firms**

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(2) Registration Statement on Form S-8 (File No. 333- 264261 ) pertaining to the TotalEnergies Holdings USA, Inc. 2022 Employee Shareholder Plan.

of our report dated March 16, 2022, with respect to the consolidated financial statements of TotalEnergies SE and subsidiaries as of and for the years ended December 31, 2021 and December 31, 2020 included in this Annual Report (Form 20-F) of TotalEnergies SE for the year ended December 31, 2022.

Paris-La Défense, March 23, 2023

KPMG *S.A.*

Represented by

/s/ Pierre, Antoine Duffaud
Pierre, Antoine Duffaud
Partner

/s/ Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe
Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe
Partner

ERNST & YOUNG Audit

/s/ ERNST & YOUNG Audit

**EXHIBIT 15.4**

**KPMG SA**
Tour EQHO
2 Avenue Gambetta
CS 60055
92066 Paris La Défense Cedex
France

Téléphone : +33 (0)1 58 68 68 68
Télécopie : +33 (0)1 58 68 73 00
Site internet : www.kpmg.fr

Securities and Exchange Commission

Washington, D.C. 20549

March 24, 2023,

**Letter to the SEC in response to comments made by a former client reporting a change in principal auditors on Form 20-F**

Ladies and Gentlemen:

We were previously joint principal accountants for TotalEnergies S.E. and, under the date of March 16, 2022, we reported on the consolidated financial statements of TotalEnergies S.E. as of and for the years ended December 31, 2021, 2020 and 2019 and the effectiveness of internal control over financial reporting as of December 31, 2021. Our terms of office could not be legally extended as they had reached the maximum legal duration following the transposition of the European audit reform into French law. Accordingly, TotalEnergies S.E.'s shareholders' meeting of May 25, 2022 resolved to appoint PricewaterhouseCoopers Audit to replace us as joint principal statutory auditors.

We have read TotalEnergies S.E.'s statements included under Item 16F of its Form 20-F dated March 24, 2023, and we agree with such statements, except that we are not in a position to agree or disagree with TotalEnergies S.E 's statements that (i) the selection of the Statutory Auditors to be appointed by the Shareholders' Meeting was overseen by the Audit Committee which issued a recommendation to the Board of Directors and (ii) PricewaterhouseCoopers Audit was not engaged regarding the application of accounting principles to a specified transaction or the type of audit opinion that might be rendered on TotalEnergies S.E 's financial statements, or any matter that was either the subject of a disagreement (as described in Item 16F(a)(1)(iv) of the Instructions to Form 20-F and the related instructions to this Item) or a reportable event (as defined in Item 16F(a)(1)(v) of the Instructions to Form 20-F).

Very truly yours,

*KPMG SA*

/s/ Pierre, Antoine Duffaud

Pierre, Antoine Duffaud

*KPMG SA*

/s/ Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe

Bertrand, Auguste, Hélen, Marie de Nucé de Lamothe