

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our 100,000 employees are committed to energy that is more affordable, cleaner, more reliable and accessible to as many people as possible. Active in more than 130 countries, the Company puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people. TotalEnergies has an industrial and retail presence over 5 continents, with consolidated sales of 206 B\$ in 2021. Its 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. The Company can leverage those integrated businesses with the knowhow and resources inherent in its business model, including a global brand and presence, technical expertise and partnerships with governments and local communities. TotalEnergies is committed to transforming its production and sales while continuing to meet the needs of a growing population. The Company is developing a wide range of energies in an integrated approach in order to decarbonize its energy offering and generate a competitive advantage that will create long-term value for its shareholders and secure its future. The world's energy mix needs to change if the objectives of the Paris Agreement are to be achieved. As a broad energy company, 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. This ambition is based on measurable objectives to reduce our greenhouse gas emissions in the short (2025), medium (2030) and long (2050) terms, covering our industrial operation (Scope 1+2) and the emissions generated by our customers' use of our energy products (Scope 3). Our global 2030 targets are as follows:

- reduce GHG emissions (Scope 1+2) on operated facilities from 46 Mt CO₂e in 2015 to less than 40 Mt CO₂e by 2025. By 2030, the target is a reduction of at least 40% of net emissions compared to 2015, thus bringing them to between 25 Mt and 30 Mt CO₂e
- reduce methane emissions of operated facilities by 50% between 2020 and 2025, and by 80% between 2020 and 2030
- maintain methane emissions intensity below 0.1% of commercial gas produced at operated gas facilities
- reduce routine flaring to less than 0.1 Mm³ /d by 2025, with the goal of eliminating it by 2030
- reduce Scope 3 GHG emissions related to its customers' use of energy products to less than 400 Mt CO₂e, a level lower than in 2015, despite the growth of its energy production in the ongoing decade
- reduce Scope 3 GHG emissions related to its customers' use of petroleum products by more than 30% compared to 2015
- reduce the average carbon intensity of the energy products used by customers by more than 20% compared to 2015. By 2025, the target reduction is at least 10% (Scope 1+2+3)

In Europe, our 2030 target is to reduce the GHG emissions from energy products throughout their value chain by at least 30% compared to 2015.

Our latest "Sustainability & Climate - 2022 Progress Report", published in March 2022, provides a picture of what a Net Zero TotalEnergies in 2050, together with society, and energy transition leader would look like, inspired in particular by the International Energy Agency's Net Zero vision. In 2050:

- around half of the energy produced by the Company would be renewable electricity with corresponding storage capacity, or around 500 TWh/year
- new molecules would account for around 25% of the energy produced, equivalent to 50 Mt/year, in the form of biogas, hydrogen, or synthetic liquid fuels
- TotalEnergies would produce around 1 Mb/day of hydrocarbons made up primarily of liquefied natural gas. Very low-cost oil would account for the rest. This oil would be used by the petrochemicals industry to produce around 10 Mt/year of polymers, of which two-thirds from the circular economy
- these hydrocarbons would represent around 10 Mt/year of residual Scope 1 emissions, including methane emissions close to zero (below 0.1 MtCO₂e/year), which would be fully offset by nature-based carbon sink solutions
- these hydrocarbons would represent Scope 3 emissions of around 100 Mt/year. To get to net zero together with society, TotalEnergies would help "eliminate" the equivalent of 100 Mt of CO₂ a year produced by its customers by developing:
 - a carbon storage service for customers that would store 50 to 100 Mt/year of CO₂
 - an industrial e-fuels activity that would avoid 25 to 50 Mt/year of CO₂ for our customers through production with 100% green hydrogen

In short, the Company will spend the next ten years building the projects and skills needed to make TotalEnergies a net zero energy company by 2050.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	Yes	2 years

(C0.3) Select the countries/areas in which you operate.

- Algeria
- Angola
- Argentina
- Australia
- Austria
- Azerbaijan
- Bangladesh
- Belgium
- Bolivia (Plurinational State of)
- Botswana
- Brazil
- Brunei Darussalam
- Bulgaria
- Burkina Faso
- Cambodia
- Cameroon
- Canada
- Central African Republic
- Chad
- Chile
- China
- Colombia
- Congo
- Costa Rica
- Côte d'Ivoire
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Dominican Republic
- Ecuador
- Egypt
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- Gabon
- Germany
- Ghana
- Greece
- Guadeloupe
- Guinea
- Hungary
- India
- Indonesia
- Iraq
- Ireland
- Italy
- Jamaica
- Japan
- Jordan
- Kazakhstan
- Kenya
- Kuwait
- Latvia
- Lebanon
- Liberia
- Libya
- Lithuania
- Luxembourg
- Madagascar
- Malawi
- Malaysia
- Mali
- Malta
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Morocco

Mozambique
Myanmar
Namibia
Netherlands
New Caledonia
New Zealand
Niger
Nigeria
Norway
Oman
Pakistan
Papua New Guinea
Peru
Philippines
Poland
Portugal
Puerto Rico
Qatar
Republic of Korea
Romania
Russian Federation
Saudi Arabia
Senegal
Serbia
Sierra Leone
Singapore
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Taiwan, China
Tajikistan
Thailand
Togo
Tunisia
Turkey
Uganda
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United Republic of Tanzania
United States of America
Uruguay
Uzbekistan
Venezuela (Bolivarian Republic of)
Viet Nam
Zambia
Zimbabwe

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

- Upstream
- Midstream
- Downstream
- Chemicals

Other divisions

- Biofuels
- Grid electricity supply from gas
- Grid electricity supply from renewables
- Carbon capture and storage/utilization

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	FR0000120271
Yes, a Ticker symbol	TTE

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	The Chairman of the Board and CEO is responsible for climate change strategy at Company level. He is the highest level of the organization. In 2016, the CEO took a decisive step by announcing the creation of the Strategy & Climate department in order for climate to be fully integrated into the Company's overarching strategy. In 2021, this department was further extended to include sustainability and became the "Sustainability and Climate" division, whose mission now includes to help implement TotalEnergies' climate and sustainable development roadmaps and environmental, social and governance policies, with transparency as a guiding principle. The Chairman ensures that the board is informed of the market developments, the competitive environment and the main challenges facing the Company, including climate change. Climate change is at the heart of the Company's strategic vision. TotalEnergies positions itself on high-growth low-carbon markets and intends to offer customers an energy mix with a carbon intensity that shall gradually decrease. To accompany these changes, in 2018, TotalEnergies' CEO introduced a carbon intensity indicator for the energy products used by its customers, covering Scope 1+2+3. In 2019, TotalEnergies' CEO announced an absolute Scope 1+2 emissions reduction target for the Company operated oil & gas facilities that were supplemented in 2020 by additional steps taken with the board of Directors towards the Paris goals, with the ambition for TotalEnergies to get to Net Zero by 2050 together with society, for its global business across its production and energy products used by its customers (Scope 1+2+3). This ambition was jointly prepared with several institutional investors as participants in Climate Action 100+, and was supported by detailed 2025 and 2030 targets as described in answer to C01. In June 2021, at the annual Shareholders' Meeting, shareholders approved almost unanimously the resolution to change the Company's name from Total to TotalEnergies, thereby anchoring its strategic transformation into a broad energy company in its identity. In May 2022 during the following annual Shareholder's Meeting, shareholders, with 89% of the votes cast, voted in favor of the consultative resolution on the Sustainability & Climate - Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition.
Director on board	The Board of Directors is a collegial body that determines the strategic direction of the Company and supervises the implementation of this vision. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the Company's legal purpose, the Board may address any issue related to the Company's operation and make any decision concerning the matters falling within its purview. TotalEnergies' Board of Directors ensures that climate-related issues are incorporated into the Company's strategy. Since 2008, these major issues for the Company have no longer been treated as one component of environmental risks, but rather on an independent basis. The Board of Directors examines the Company's GHG emissions reduction targets and reviews its performance on an annual basis. The Lead Independent Director ensures efficient governance of the Company in accordance with current practice and is the Chairwoman of the Governance and Ethics Committee, member of the Compensation Committee and member of the Strategic & CSR Committee. At its meeting on May 4, 2020, the Board of Directors approved the Company's new Climate ambition to get to net zero carbon emissions by 2050 together with society and determined the relevant steps and targets for reducing the Company's greenhouse gas emissions (GHG). This ambition is supported by detailed 2025 and 2030 targets as described in answer to C0.1. In June 2021, at the annual Shareholders' Meeting, shareholders approved almost unanimously the resolution to change the Company's name from Total to TotalEnergies, thereby anchoring its strategic transformation into a broad energy company in its identity. In May 2022 during the following annual Shareholder's Meeting, shareholders, with 89% of the votes cast, voted in favor of the consultative resolution on the Sustainability & Climate - Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding business plans</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<Not Applicable>	<p>Reviewing and guiding strategy, Reviewing and guiding major plans of action, Reviewing and guiding risk management policies, Reviewing and guiding business plans, Overseeing major capital expenditures, acquisitions and divestitures: Every year, the Board of Directors reviews the main issues related to climate change in the strategic outlook review of the Company's business segments, which are presented by the respective general management structures. In 2020, TotalEnergies' Board of Directors reviewed the Company ambition in the fight against climate change and decided to take additional steps towards the Paris goals, with a view for TotalEnergies to get to Net Zero by 2050 together with society, for its global business across its production and energy products used by its customers (scope 1+2+3). In June 2021, at the annual Shareholders' Meeting, shareholders approved almost unanimously the resolution to change the Company's name from Total to TotalEnergies, thereby anchoring its strategic transformation into a broad energy company in its identity. In May 2022 during the following annual Shareholder's Meeting, shareholders, with 89% of the votes cast, voted in favor of the consultative resolution on the Sustainability & Climate - Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition. Monitoring implementation and performance of objectives: The Audit Committee does specific work on the climatic and environmental reporting processes in the review of the performance indicators published by TotalEnergies in its annual reports and audited by an independent third-party organization. Monitoring and overseeing progress against goals and targets for addressing climate-related issues: In 2016, the Compensation Committee decided to introduce changes to the variable compensation of the Chairman and Chief Executive Officer to take better account of the achievement of Corporate Societal Responsibility (CSR) and HSE targets. The importance given to these aspects in the remuneration keeps growing, and the Compensation Committee of the Board reviews these criteria every year. In 2019, the Board decided to introduce a quantitative criterion on the reduction of greenhouse gas emissions of the Company's operated Oil & Gas facilities to the CEO and 300 executive officer remuneration and in 2021, the Board of Directors decided to introduce a new criterion to grant performance shares related to the evolution of GHG emissions related to the use by customers of energy products sold for end use (Scope 3) in Europe. The Board of Directors is fully mobilized by the Climate issue in order to support the development of TotalEnergies, and it approved the publication of the first Climate Report in March 2016. This report is updated every year and has been supplemented by the Sustainability & Climate Progress Report in 2022. All these points of information and decisions were made during programmed Board's meetings.</p>

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Around 2/3 of our board members (9 out of 14) have specific climate competencies ranging from: - attendance to COP, - work experience including climate-related business transformation, - seminar with contribution from leaders and experts, - training program, etc. {Source: Totalenergies URD p. 41} Additionally, a continuing training program relating to the climate for directors has been approved in 2021 and will be rolled out in 2022. It will include the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change and in particular its causes and consequences), as well as 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.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (President Strategy & Sustainability)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Risk committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Chief Financial Officer (CFO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Chief Procurement Officer (CPO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

TotalEnergies' Chairman and CEO deploys the Company's climate strategy in keeping with the long-term strategic guidelines defined by the Board of Directors. The chairman of the board is the highest level of the organization, and Company strategy is most significant for the success of the business, this role has therefore been assigned the oversight of these most critical responsibilities, whereby climate-related issues are fully integrated into. In 2016, TotalEnergies' CEO took a decisive step by announcing the creation of a combined Strategy & Climate department in order for climate, a global concern, to be fully integrated into the Company's overarching strategy. In 2021, this department was further extended to include sustainability and became the "Sustainability and Climate" division, whose mission now includes to help implement TotalEnergies' climate and sustainable development (including human rights) roadmaps and environmental, social and governance (ESG) policies, with transparency as a guiding principle.

The Chairman and CEO ensures that the board is informed of the market developments, the competitive environment and the main challenges facing the Company, including climate change. The board of Directors examines climate change risks and opportunities during the strategic outlook review of the Company's business segments. In 2020, TotalEnergies' Chairman and CEO, and board of Directors reviewed the achievements and ambitions of the Company in the fight against climate change and decided to take additional steps towards the Paris goals, with the ambition to get to Net Zero by 2050 together with society, for its global business across its production and energy products used by its customers (Scope 1+2+3). This ambition was jointly prepared with several institutional investors as participants in Climate Action 100+.

In June 2021, at the annual Shareholders' Meeting, shareholders approved almost unanimously the resolution to change the Company's name from Total to TotalEnergies, thereby anchoring its strategic transformation into a broad energy company in its identity.

In May 2022 during the following annual Shareholder's Meeting, shareholders, with 89% of the votes cast, voted in favor of the consultative resolution on the Sustainability & Climate - Progress Report 2022, reporting on the progress made in the implementation of the Corporation's ambition.

General Management calls on the President Strategy & Sustainability, who sits on TotalEnergies' Executive Committee and the President Sustainability & Climate. The President Sustainability & Climate is the highest-ranking person in the organization with a day-to-day responsibility for issues related to climate change. In particular, this includes the development of the climate roadmap for the Company, its implementation and the definition of greenhouse targets and ambitions. The President Sustainability & Climate reports directly to the President Strategy & Sustainability.

The Executive Committee relies on the work done by the Company Risk Management Committee to have a map of the climate-related risks to which the Company is exposed, and to make sure that the risk management measures in place are efficient. The Company Risk Management Committee is chaired by a member of the Executive Committee, the Company's Chief Financial Officer, and includes the Senior Vice Presidents of the corporate functions together with the chief administrative officers or chief financial officers of the business segments. The Chief Financial Officer attends all meetings of the Board of Directors' Audit Committee, thus strengthening the link between the Company Risk Management and the Audit Committee. In addition, the Risk Committee (CORISK) assesses investment projects, risks and corresponding climate-related issues before they are presented to the Executive Committee. Monitoring processes are implemented at different levels of the Company's organization.

Finally, the Climate Vice-President chairs the Climate-Energy steering committee, which includes cross-cutting corporate functions and representatives of Strategy and HSE management from the various business segments. The mission of this committee consists of structuring the Company's approach to the climate.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The Board of Directors' strong focus on climate issues is reflected, among other things, in changes in the Chairman and CEO's compensation. Since 2013, a CSR performance criterion has been added for the attribution of the CEO's variable remuneration. The CSR performance is based on the achievement of targets for carbon emissions, energy efficiency, TotalEnergies' position in the rankings published by ESG rating agencies, the integration of climate into the Company's strategy as well as CSR reputation.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Board Chair	Monetary reward	Emissions reduction target	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 2021) 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 target.
Board/Executive board	Non-monetary reward	Emissions reduction target	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 2021) 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 target.
Corporate executive team	Monetary reward	Emissions reduction target	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 2021) 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 target.
Executive officer	Monetary reward	Emissions reduction target	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 2021) 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 target.
Business unit manager	Monetary reward	Emissions reduction target	TotalEnergies' remuneration system for management and senior executives comprises a variable component, which is linked to individual performance and the achievement of individually agreed performance targets. Depending on the responsibilities, individual targets of TotalEnergies management related to HSE or climate related issues such as: - 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); Managers are assessed on the basis of the specific KPIs (Key Performance Indicators) pertaining to their function and business unit or corporate department. Attainment of GHG emissions reduction targets is part of the KPIs for senior managers. The criteria for awarding performance shares of all the Company's employees includes since 2020 a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2).
Facilities manager	Monetary reward	Energy reduction target	TotalEnergies' remuneration system for management and senior executives comprises a variable component, which is linked to individual performance and the achievement of individually agreed performance targets. Depending on the responsibilities, individual targets of TotalEnergies management related to HSE or climate related issues such as: - 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); Managers are assessed on the basis of the specific KPIs (Key Performance Indicators) pertaining to their function and business unit or corporate department. Attainment of GHG emissions reduction targets is part of the KPIs for senior managers. The criteria for awarding performance shares of all the Company's employees includes since 2020 a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2).
Environment/Sustainability manager	Monetary reward	Emissions reduction target	TotalEnergies' remuneration system for management and senior executives comprises a variable component, which is linked to individual performance and the achievement of individually agreed performance targets. Depending on the responsibilities, individual targets of TotalEnergies management related to HSE or climate related issues exist such as: - 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); Managers are assessed on the basis of the specific KPIs (Key Performance Indicators) pertaining to their function and business unit or corporate department. Attainment of GHG emissions reduction targets is part of the KPIs for senior managers. The criteria for awarding performance shares of all the Company's employees includes since 2020 a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2).
Chief Procurement Officer (CPO)	Monetary reward	Emissions reduction target	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 2021) 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 target.
All employees	Monetary reward	Emissions reduction target	The criteria for awarding performance shares of all the Company's employees includes since 2020 a criterion linked to the achievement of the GHG emissions reduction target (Scope 1+2).

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	The risks and opportunities related to climate change are analysed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).
Medium-term	2	9	The risks and opportunities related to climate change are analysed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).
Long-term	9	29	The risks and opportunities related to climate change are analysed according to different timescales: short term (two years), medium term (until 2030) and long term (beyond 2030).

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The Company implements a risk-management system that is an essential factor in the deployment of its strategy. This system relies on a continuous process, at company and asset level, of identifying and analysing risks to determine those that could prevent the attainment of TotalEnergies' objectives.

Climate-related risks form part of the risks that are analysed by the TotalEnergies Risk Management Committee. This committee relies on risk-mapping work.

The Company risk mapping was updated in 2019. The risk materiality (severity) is assessed according to their probability of occurrence, their level of impact and taking into account the management systems in place. The impact level assessment was performed according to various financial, strategic, environmental, image/reputation, legal, human and HR criteria. The assessment of the level of materiality may be changed at any time, in particular should new facts, whether external or specific to the Company, come to light. The materiality rating scale (impact level and probability of occurrence) is from 1 i.e. less material to 4 i.e. more material.

The substantive financial impact is evaluated as a percentage of the Net Operating Income at the concerned perimeter and the strategic impact is assessed according to the Company's ability to be recognized as the responsible energy major.

Any investment, sale or financial commitment is subject to different levels of decision-making based on financial thresholds. Substantive change is defined as the amount of CAPEX involved in the particular project under analysis, based on "financial significance" thresholds, risks will be assessed through different processes and undergo different levels of validation, these thresholds are segment specific. In its decision-making process, the risks and associated climate issues (flaring, greenhouse gas emissions, CO2 price sensitivity) are assessed prior to the presentation of the new projects (both upstream and downstream) to the Executive Committee.

For each new project, the criteria for determining materiality are defined in the "Corisk" checklist, which needs to be completed before submission to the Risk Committee, prior to the presentation to / approval by the Executive Committee. The risks and impact assessments are real, potential, direct, indirect or induced, and the impacts **severity is assessed on 4 levels from low, moderate, high to very high. Priorities are defined by the Executive Committee depending on the importance of the project**, based on several parameters (e.g. geopolitical situation or risks in the country, oil price, gas price...). All these parameters are analysed and updated each year in the long-term plan documents prepared by each operational entity within the Company.

In addition, the Risk Committee (CORISK) assesses investment projects, risks and corresponding climate-related issues before they are presented to the Executive Committee.

Each significant investment project is evaluated in light of the objectives of the Paris Agreement, and on the basis of the following criteria:

- Project cost is analysed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at \$50/b and Henry Hub at \$2.5/Mbtu) and with a carbon price of \$2030100/t in 2030 and beyond. In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward.
- For new oil and gas projects (greenfield and acquisitions), the intensity of Scope 1+2 GHG is compared, depending on their nature, to the intensity of the average GHG emissions of upstream production assets or that of various downstream units (LNG plants, refineries).
- For additional investments in existing assets (brownfield projects), the investment will have to lower the Scope 1+2 emissions intensity of the asset in question. The goal is for each new investment to contribute to lowering the average intensity of the Company's Scope 1+2 GHG emissions in its category.
- For projects related to other energies and technologies, such as biofuels, biogas, CCS, the reduction in GHG emissions is reviewed to assess its contribution to lowering the Company's emissions.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Identification The identification and the impact of climate-related risks form an integral part of TotalEnergies' global risk management processes. In particular, they cover the risks related to transition 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. 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, and the contribution of renewables and gas to the production of electricity will therefore play an essential role in the fight against climate change. Gas and sustainable biofuels 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 CO2 emissions (Scope 1+2). 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. Assessment The Company Management Risk Committee The objective of the TotalEnergies Risk Management Committee (TRMC), which meets 5 times a year, 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. 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 – including climate risks - evaluate residual risks in light of existing systems and, if necessary, make proposals for additional systems to bring them to acceptable levels. - ensure that risks and their corresponding treatment mechanisms are handled by designated managers within the organization. The Company Risk Management Committee uses the Company risk mapping work, updated in 2019. The risk materiality is assessed according to their probability of occurrence, their level of impact. The impact level assessment was performed according to various financial, strategic, environmental, image/reputation, legal, human and HR criteria. In each category, the risks presented are those considered to be the most material according to the assessment based on the above criteria. The Materiality rating scale is from 1 i.e. less material to 4 i.e. more material. The Climate challenges are assessed with the following materiality: Deployment of the energy transition with materiality 4, Development of oil and gas reserves with materiality 3, Operating and financial risks relating to the effects of climate change with materiality 3, Reputational risk and management of talents with materiality 2. Assessment of transition risks: The transition risks are risks related to regulations, laws, technologies or market events linked to the transition. The Risk Committee (CORISK) assesses investment projects, risks and corresponding climate-related issues in all the value chain (Direct operations, Upstream, Downstream) and in all time-horizon (Short-term, Medium-Term, Long-Term) before they are presented to the Executive Committee. Each significant investment project is evaluated in light of the objectives of the Paris Agreement, and on the basis of the following criteria: - Project cost is analysed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at \$50/b and Henry Hub at \$2.5/Mbtu) and with a carbon price of \$100/t in 2030 and beyond. In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward. - For new oil and gas projects (greenfield and acquisitions), the intensity of Scope 1+2 GHG is compared, depending on their nature, to the intensity of the average GHG emissions of upstream production assets or that of various downstream units (LNG plants, refineries). For additional investments in existing assets (brownfield projects), the investment will have to lower the Scope 1+2 emissions intensity of the asset in question The goal is for each new investment to contribute to lowering the average intensity of the Company's Scope 1+2 GHG emissions in its category. - For projects related to other energies and technologies, such as biofuels, biogas, CCS, the reduction in GHG emissions reductions is reviewed to assess its contribution to lowering the Company's emissions. Assessment of physical risks: The physical risks correspond to physical impacts of climate change such as the increase in occurrences or severity of extreme weather phenomena. 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 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 are taken into account. Response On physical risks, the internal studies conducted have not identified any facilities that cannot withstand the consequences of climate change known to date. Concerning transition risks, in 2021, 12 investments were evaluated with the criteria above: Mero-4 (Brazil) and Block 10 (Oman), Tommeliten Alpha (Norway), Al Shaheen Phase 2 (Qatar), Atapu (Brazil), Sepia (Brazil), Ratawi (Iraq), Waha (Libya), BioBéarn (France), Del Rio biogas (United States), Batéké (Republic of the Congo) and Blue Mountain (Peru); the latter two being carbon sinks projects. Several renewable electricity projects, which are compatible by nature with these criteria, were also approved. For projects greenlighted in 2021: – profitability exceeds the internally defined threshold, 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 CO2.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	In Europe, TotalEnergies' industrial facilities participate in the CO2 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 2021, the price of these allowances was about €80/t CO2, and TotalEnergies estimates that this price could reach more than €100/t CO2 in phase 4. This price will depend on the adjustments that will be proposed in 2022 under the European Green Deal. The risk for TotalEnergies is loss of competitiveness and an increase in operating costs on the international scale, in particular towards competitors located outside the European Union, which are not subject to similar regulation.
Emerging regulation	Relevant, always included	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 an increase in operating costs. TotalEnergies takes into account a CO2 price, which reaches \$100/t in 2030 and beyond. In the case where the CO2 price is at \$200/t, i.e., an increase of \$100/t, TotalEnergies estimates a negative impact of 9% on the discounted present value of all the Company's assets (upstream and downstream). In 2022, the new internal CO2 price scenario has been increased to \$100/t starting 2023.
Technology	Relevant, always included	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 certain business models 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 and new technologies continuously emerging. TotalEnergies must be able to 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. TotalEnergies' innovation policy requires significant investment, 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 may have a negative effect on TotalEnergies' market share, its profitability, its reputation, and its ability to attract the necessary human resources.
Legal	Relevant, always included	In the context of an increased exposure to legal proceedings, TotalEnergies may be subject to claims by public entities in various countries aimed at financing protective measures to limit the effects of climate change, or claims by non-State actors, which could affect TotalEnergies' financial position or its share value.
Market	Relevant, always included	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. 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; each new investment enhances the resilience of the Company's portfolio. 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 17%. In addition, to ensure robust accounting of its assets in the balance sheet, the Company uses an oil price trajectory that converges in 2040 with the price in the IEA's SDS scenario (\$50/b) and that converges after 2040 with the price retained for 2050 in the IEA's NZE scenario (\$25/b) to calculate impairment of its upstream assets. The prices retained for gas stabilize between now and 2025 and until 2040 at lower levels than today and converge with the IEA's NZE scenario in 2050.
Reputation	Relevant, always included	TotalEnergies is exposed to reputational risk and may face difficulties recruiting and retaining people with the key talents and skills required for its development. 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 significant media exposure, both nationally and internationally. This is magnified through the use of social networks. In addition, the expectations of new generations and employees regarding the Company's commitment in the face of environmental challenges, in particular those related to climate, as well as the increased competition with fast-growing high technology sectors, such as information technologies, are increasing and may become visible both in the recruitment process and over the course of employees' careers. TotalEnergies may therefore experience difficulties in attracting and retaining people with the key talents and skills that it needs for its development. If TotalEnergies were unable to respond appropriately to stakeholders, its public image and its reputation could be affected. TotalEnergies could therefore face difficulties recruiting and retaining people with the key talents and skills required for its development, which could hinder its ability to develop and innovate and thus lead to a loss of productivity and a slowdown in its growth.
Acute physical	Relevant, always included	The effects of climate change may expose TotalEnergies to an increase in associated operational and financial costs. 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 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.
Chronic physical	Relevant, always included	Climate change potentially has 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 weather events could damage onshore and offshore facilities. All these factors could increase the operating costs of the facilities and adversely affect TotalEnergies' operating income.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In Europe, TotalEnergies' industrial facilities participate in the CO2 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 2021, the price of these allowances was about €80/t CO2, and TotalEnergies estimates that this price could reach more than €100/t CO2 in phase 4. 59% of

TotalEnergies scope 1 emissions in 2021 are from assets located in Europe, and amounted to 19 Mt CO2 equivalent, 30% of those emissions could be then not covered by free quotas (6 Mt CO2 equivalent).

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

540000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Based on available information, the Company estimates that around 30% of emissions subjected to EU-ETS are not covered by free quotas. At the end of 2021, the price of these quotas was around €80/t, i.e around \$90/t. The potential financial impact is around 540 M\$ (i.e. 6MtCO2e (30% of TotalEnergies' Scope 1 emissions in Europe) x ~90\$).

Cost of response to risk

450000000

Description of response and explanation of cost calculation

SITUATION TotalEnergies' main emitting sites located in Europe are complying with the European carbon market (EU-ETS). The risk for TotalEnergies is a loss of competitiveness, in particular towards competitors located outside the European Union, which are not subject to similar regulation. TASK We estimate that around 30% of the emissions in the EU-ETS scope will not be covered by free allowances over the period from 2021 to 2030. At the end of 2021, the price of these allowances was about \$90/t CO2. 59% of TotalEnergies scope 1 emissions in 2021 are from assets located in Europe, and amounted to 19 Mt CO2 equivalent, 30% of those emissions could be then not covered by free quotas (6 Mt CO2 equivalent). The Company is taking action to reduce emissions from its operated industrial facilities, including Europe, by over 40% by 2030. ACTION Investments are made in installations (especially in European refineries) to mitigate our exposure risk, by advancing new technologies to limit GHG emissions through the improvement of energy efficiency, with clear ambition set for the Company (-1% per year). TotalEnergies uses the most appropriate architectures and equipment and introduces technological innovations. For example, on offshore production barges, offshore platforms and onshore facilities, heat recovery systems at gas turbine exhausts have been implemented thereby avoiding the need for furnaces or boiler systems. Also, TotalEnergies is using a CO2 shadow price in all our investment decisions to ensure the viability of our projects and the resilience of our assets: TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher), with the assumption of a linear increase to 100 per ton as from 2030. For 2022 projects, the CO2 price has been increased to 100\$/t from 2023 onward. In 2021, 2 investments in Europe were evaluated on these criteria: Tommeliten Alpha (Norway) and BioBéarn (France). RESULT As a result, our scope 1 in Europe has been reduced from 24 MtCO2eq in 2019 to 19 MtCO2eq in 2021 (operating costs reduced by 5Mt x ~90\$/t = 450 M\$ in 2 years, using European 2021 CO2 price) Refining & Chemicals for which energy consumption is a key factor in costs, especially in Europe, is continuing its efforts of recent years to improve energy efficiency as part of an investment plan totaling 450 M\$ over the period 2018-2025 for 400 identified projects (averaging 1,3 M\$/project).

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Cyclone, hurricane, typhoon
----------------	-----------------------------

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

The tendency observed in recent years shows that hurricanes tend to become stronger than in the past. This could have an impact on the continuity of TotalEnergies' operations, especially in Exploration and Production, and Refining and Petrochemicals, in particular in cyclone-prone areas. These physical risks could affect our business and value chain in the following way: - The utilization rate of the production capacity could be less than expected in the event of major physical incident. - The other consequences would be the repair costs to restore a normal situation and resume production, and a loss of revenue during the downtime. Geographical areas considered as highly exposed to hurricanes are the Gulf of Mexico and South-East Asia. In the USA, we operates a refinery and a chemical plant in Port Arthur, Texas, and has some petrochemical plants in Texas, which represents approximately 15% of the Company's refinery throughput (100% operated).

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

30000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

For TotalEnergies, the financial implications are generally estimated on the basis of a number of days of lost production on a site and the corresponding loss of revenue (products not sold to customers during the downtime). For example, in average, a production stop of one month of a refinery would represent an operational loss of about 30 M\$ (one month corresponds to the average production stop faced during the last hurricanes in the USA; $(178 \text{ kb/d} \times 30 \text{ days} \times 0,15 \text{ t/b} \times 50 \text{ \$/t} \times 0,75 \text{ (load factor)}) = \sim 30 \text{ M\$}$). The potential financial implications of physical risks are limited when considering our global activities in 130 countries, so any weather-related event in a given country would only affect a small proportion of our activities at a given time. Given their locations, E&P production sites operated by TotalEnergies have so far suffered relatively limited exposure to extreme weather events. Geographical areas considered as highly exposed to hurricanes are the Gulf of Mexico and South-East Asia.

Cost of response to risk

350000000

Description of response and explanation of cost calculation

We have implemented an active process in order to regularly conduct vulnerability studies of our facilities, and our internal procedures specifically call for the systematic assessment of the possible repercussions of climate change on future projects. In-depth studies are carried out when the potential risk is significant relative to the existing safety margin. Our analyses take into account the life span of our projects and their capacity to gradually adapt. To date, these studies have not identified any facilities that cannot withstand the consequences of climate change. SITUATION Yamal LNG is one of the largest and most complex LNG projects in the world, which is operated by the Yamal LNG Company, owned by Novatek, TotalEnergies, CNPC and Silk Road Fund. Gas export began in 2017. TASK The effect of climate change on the permafrost had to be accounted for in the design of Yamal LNG in 2013. ACTION A total of 65,000 temperature-controlled piles driven to 10 to 28 meters deep have been installed to guarantee the stability of the heaviest structures and equipment and a total of 28,000 thermosyphon systems (a cooling device that lowers the temperature of the soil) have been positioned on the primary piles in order to maintains a temperature that guarantees the full bearing capacity of the piles for the plant's operating lifetime. RESULTS In 2021, the plant's production exceeded the nameplate capacity by 17% to 19.3 Mt/y. A fourth liquefaction train with a capacity of 0.9 Mt/y, using a PAO Novatek technology, also started in March 2021. TotalEnergies is committed under long term contracts to purchase Liquefied Natural Gas from the Yamal LNG plant, representing a volume of 5.2 Mt of LNG per year. The annual cost (in Full Time Equivalent / FTE) is approximately 350 M\$ ($\sim 3,400 \text{ FTE} \times \sim 100\text{k\$/FTE}$) excluding additional costs potentially due to specific site surveys. The creation of OneTech on September 1, 2021 is the signal of an unprecedented mobilization of human energy to meet TotalEnergies' new challenges. The new branch OneTech brings together the Company's technical and scientific expertise. There are 3,400 engineers, technicians, and researchers to meet these new challenges. Dealing with physical risks attached to new projects in more exposed areas is integrated into the engineering and economic characteristics of the projects.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**Identifier**

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

As the worldwide demand for electricity is expected to grow strongly in the coming decades ($\sim 2\%$ CAGR over 2015-40, source IEA), TotalEnergies intends to become a major player in low-carbon electricity. Since the early 2000s, TotalEnergies has developed along the whole of the low-carbon electricity value chain, from electricity generation, storage and sale to the end customer in Asia-Pacific, Africa and Latin America. The Company has a diversified portfolio of assets in wind, solar and hydro. TotalEnergies' solar portfolio expanded rapidly in 2020 and again in 2021, notably in the US: - JV with Hanwha to develop 1.6 GW of storage capacity - 2.2 GW of solar projects and 600 MW of storage projects - Partnerships with Simply Blue Group to develop floating offshore wind power. This growth will continue, as solar energy accounts for three-quarters of the 35 GW the Company wants to develop by 2025. And in India: - 20% interest in Adani Green Energy Limited (AGEL), the world's largest solar developer. - Acquisition by AGEL (TotalEnergies 20%) of SB Energy's 5 GW. The Company had a portfolio of gross installed renewable power generation capacity of 10.3 GW in 2021. 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 and raise electricity generation to 120 TWh in 2030 from 1.7 TWh in 2015.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Renewable energies will gradually increase in TotalEnergies' portfolio. Low carbon electricity could represent 50% of TotalEnergies' mix by 2050. The projected sharp rise in sales of electricity (a twentyfold increase over the period 2015-2030) could make it possible to decarbonize the Company's energy mix without adding to indirect Scope 3 emissions (GHG Protocol - Category 11). The Company's goal is to increase electricity production from 21 TWh in 2021 to 120 TWh in 2030. Sales could represent around 9 B\$ in 2030. (Using an assumption of 120 Twh sold, 1,1 €/€\$ and 70€/Mwh, close to 2021 gross current prices in Europe).

Cost to realize opportunity

3000000000

Strategy to realize opportunity and explanation of cost calculation

SITUATION In affirming its ambition to be a major player in the energy transition and to get to net zero by 2050, together with society, TotalEnergies has committed to profoundly transforming its production and sales while continuing to meet the needs of a growing population. The Energy transition involves electrifying energy uses, which requires a massive increase in green electrons production. TotalEnergies is deploying across the entire renewable electricity value chain, from production and storage to trading and sales, in accordance with a selective, profitable approach. **TASKS** In the past four years, the Company's gross installed capacity for renewable power grew from 0.7 GW in 2017 to more than 10 GW in 2021. The objective is to have 35 GW of gross capacity in 2025 and 100 GW in 2030. The 2025 figure is based on projects that have been identified or are in development. The Company's goal is to increase electricity production from 21 TWh in 2021 to 120 TWh in 2030. **ACTIONS** In five years, the Company has invested more than 10 B\$, primarily in photovoltaic electricity and offshore wind, for an average of 2 B\$ per year. In 2021, TotalEnergies lifted its investments in electricity and renewables to more than 3 B\$ or 25% of its net investments (cost of opportunity, 3 B\$ ~ 13 B\$ net investment x 25%). This amount is at the same magnitude than top solar & wind pure players, with the ambition to be one of the top 5 renewable electricity producers (no specific associated breakdown). Several renewable electricity projects were approved in 2021, such as offshore wind projects Round 4 UK, Scotwind (United Kingdom), Yunlin (Taiwan), five onshore wind projects in France with a total gross capacity of nearly 200 MW, and several solar energy projects in France, Spain, Iraq and the US for approximately 3 GW of gross capacity. It intends to finance investments of more than 60 B\$ in renewable power generation capacity by 2030. **RESULTS** The Company makes profitable investments, meaning projects with a return of more than 10% (Return on equity, including partial divestments). The mix combines regulated markets with deregulated markets integrated across the entire electricity value chain. As a result, the Renewables & Electricity business's EBITDA exceeded 1 B\$ in 2021.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

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.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

In 2021, Saft's turnover amounted to 850 M\$ (+12% vs 2020). Compounding the same growth rate to 2030 (CAGR: 12% until 2030) will lead SAFT to 2 B\$ revenues in 2030 as Saft is well placed to benefit from the growth in renewable energies beyond its current activities, by offering massive storage capacities, combined with renewable electricity.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

SITUATION Saft, which TotalEnergies acquired in 2016, is a company that specializes in the design, manufacture and sale of high-tech batteries for industry. **TASKS** Building on the strength of its technological know-how, 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. **ACTIONS** In 2019, the company strengthened its energy storage and electric mobility activity, with the creation of a joint-venture with Tianneng Energy Technology (TET), with a view to developing their lithium-ion activity, and with the acquisition of Go Electric Inc., an American specialist in energy resilience solutions for microgrids. Additionally, Saft signed a contract with the Finnish operator TuuliWatti to build the largest energy storage system in the Nordic countries. Saft is also active in the European alliance working on a new generation of "solid electrolyte" batteries. TotalEnergies and PSA Group announced in January 2020 their plan to combine their know-how to develop an electric vehicles battery manufacturing activity in Europe. To that end, they intend to establish a joint venture named ACC (Automotive Cell Company). **RESULTS** In 2021, the ACC alliance made significant process. ACC can rely on cutting-edge R&D, notably provided by Saft. In September 2021, ACC inaugurated its R&D center in Bruges near Bordeaux, with the objective of developing and producing the first prototype cells and modules for batteries. The pilot plant built on the site of Saft's factory in Nersac, France, will aim to validate the mass series production of lithium-ion cells. Cost to realize the opportunity: In 2021, Saft was present in 19 countries and has over 4,000 employees. TotalEnergies acquired France-based battery manufacturer Saft in 2016 for around 1 B\$. Other case study: In 2018, TotalEnergies also acquired G2Mobility a French leader in smart charging solutions. In 2020, the Company obtained a concession for 20,000 charge points in the Metropolitan Region of Amsterdam, acquired London's largest charging network for electric vehicles, with over 1,600 charge points installed, and will operate the public network of 2,300 charge points in Paris for a period of ten years. As of the end of 2020, TotalEnergies operated more than 18,000 charge points. The Company aims to operate 150,000 charge points in Europe by 2025.

Comment**C3. Business Strategy****C3.1****(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?****Row 1****Transition plan**

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

Yes

Mechanism by which feedback is collected from shareholders on your transition plan

Our transition plan is voted on at Annual General Meetings (AGMs)

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

Attach any relevant documents which detail your transition plan (optional)

Sustainability and Climate - 2022 progress report
Sustainability_Climate_2022_Progress_Report_EN_0.pdf

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	Customized publicly available transition scenario	Company-wide	1.5°C	The Transition Pathway Initiative (TPI) announced that TotalEnergies “have set emissions reduction targets that are ambitious enough to reach net zero by 2050 and to align with TPI’s 1.5°C benchmark.” Our carbon neutrality ambition for 2050 (net zero emissions including scope 1+2+3), together with society, is indeed in line with most IPCC and IEA 1.5°C scenarios. The path of our transformation for meeting this ambition is based on measurable objectives to reduce our greenhouse gas emissions, covering our industrial operations (Scope 1+2) and the emissions generated by our customers’ use of our energy products (Scope 3). According to assessments by respected independent third parties, our target of a 40% reduction by 2030 in our net Scope 1+2 emissions compared to 2015 is in line with the commitments made by countries with a net zero pledge, including the European Union with its “Fit for 55” package. We added this year phased targets for reducing methane emissions (50% from 2020 levels by 2025 and 80% from 2020 levels by 2030) to move towards zero methane and an objective of less than 0.1 million cubic meters per day for routine gas flaring at our operated assets by 2025, before eliminating flaring completely by 2030. Finally, we have an ambitious target of more than 30% reduction in greenhouse gas emissions related to sales of petroleum products (Scope 3 Oil) by 2030 compared to 2015.
Transition scenarios	IEA NZE 2050	Company-wide	<Not Applicable>	The Company’s strategy incorporates analysis of scenarios. TotalEnergies is relying on global energy demand data from the “World Energy Outlook” issued by IEA since 2016 and on its own supply assessments. The Company determines the oil & gas prices scenarios based on assumptions on the evolution of core indicators of the Upstream activity (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 (demand for oil & gas products in different markets, changes in refining capacity and demand for petroleum products) and by integrating challenges raised by the climate. To define an energy mix that would help meet the world’s energy needs while reducing emissions, TotalEnergies analyses the scenarios prepared by the IEA (more specifically the Sustainable Development Scenario – SDS - and the Net-Zero Emissions by 2050 Scenario) and develops its own long-term scenario to 2050 in its TotalEnergies Energy Outlook aligned with its ambition to reach carbon neutrality by 2050 together with society.
Transition scenarios	Customized publicly available transition scenario	Company-wide	1.6°C – 2°C	To define an energy mix that would help meet the world’s energy needs while reducing emissions, TotalEnergies analyses the scenarios in its TotalEnergies Energy Outlook. Growing energy demand and getting to Net Zero are the two global trends underpinning the TotalEnergies Energy Outlook and thus the evolutions of the energy markets that TotalEnergies integrates into its strategy. The TotalEnergies Energy Outlook 2050 is a prospective vision of the evolution of energy supply and demand on the planet, around two scenarios: “Momentum” and “Rupture”. The Rupture scenario is aligned with a well below 2°C scenario. It foresees technological breakthroughs, a reinforcement of public policies, a massive switch to renewable energies, an accelerated electrification in all sectors and a significant decrease in energy intensity. Those scenarios cover all business segments of TotalEnergies organisation: upstream, refining, Gaz power and renewables activities; and marketing and services. In 2020, TotalEnergies’ CEO and board of Directors reviewed the Company ambition in the fight against climate change and decided to take additional steps towards the Paris goals, with the ambition to get to Net Zero by 2050 together with society, for its global business across its production and energy products used by its customers (Scope 1+2+3).

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

How robust is our business strategy given the long-term trends for oil and gas under various climate-related scenarios? What breakeven price requirement for our new projects is needed to ensure resilience of our portfolio? When sanctioning a project, is a project resilient against low oil and gas prices and higher CO2 price? How robust is our portfolio to higher carbon price?

Results of the climate-related scenario analysis with respect to the focal questions

Active management over the last few years has made the Company’s portfolio more resilient. The portfolio benefits from a low breakeven point in line with the strategic objective of less than \$30/b, ensuring competitive resources. 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 CO2/boe, respectively. The average life of the Company’s proved and probable oil and gas reserves is 18 years and the discounted value of its upstream assets beyond 2040 represents less than 15% of their total value. 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 characteristics of the 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. TotalEnergies assesses its portfolio’s resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests. Each material investment is reviewed in relation to the objectives of the Paris Agreement; each new investment enhances the resilience of the Company’s portfolio. TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher), with the assumption of a linear increase to \$100 per ton as from 2030. In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward. Assuming a carbon price of \$200/ton as from 2020 and an annual increase of 2%, TotalEnergies estimates a negative impact of around 9% on the discounted present value of its assets. 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 by around 17%. In addition, to ensure robust accounting of its assets in the balance sheet, the Company uses an oil price trajectory that converges in 2040 with the price in the IEA’s SDS scenario (\$50/b) and that converges after 2040 with the price retained for 2050 in the IEA’s NZE scenario (\$25/b) to calculate impairment of its upstream assets. The prices retained for gas stabilize between now and 2025 and until 2040 at lower levels than today and converge with the IEA’s NZE scenario in 2050.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>SITUATION In affirming its ambition to be a major player in the energy transition and to get to net zero by 2050, together with society, TotalEnergies has committed to profoundly transforming its production and sales while continuing to meet the needs of a growing population. The Energy transition involves electrifying energy uses, which requires a massive increase in green electrons production. TotalEnergies is deploying across the entire renewable electricity value chain, from production and storage to trading and sales, in accordance with a selective, profitable approach. TASKS In the past four years, the Company's gross installed capacity for renewable power grew from 0.7 GW in 2017 to more than 10 GW in 2021. The objective is to have 35 GW of gross capacity in 2025 and 100 GW in 2030. The 2025 figure is based on projects that have been identified or are in development. The Company's goal is to increase electricity production from 21 TWh in 2021 to 120 TWh in 2030. ACTIONS In five years, the Company has invested more than 10 B\$, primarily in photovoltaic electricity and offshore wind, for an average of 2 B\$ per year. In 2021, TotalEnergies lifted its investments in electricity and renewables to more than 3 B\$, or 25% of its net investments. It intends to finance investments of more than 60 B\$ in renewable power generation capacity by 2030. RESULTS The Company makes profitable investments, meaning projects with a return of more than 10% (Return on equity, including partial divestments). The mix combines regulated markets with deregulated markets integrated across the entire electricity value chain. As a result, the Renewables & Electricity business's EBITDA exceeded 1 B\$ in 2021. The impact is high. Time scale: short term (two years), medium term (until 2030) and long term (beyond 2030).</p>
Supply chain and/or value chain	Yes	<p>SITUATION The Company believes in the essential role of natural gas in the energy transition. Strengthening the position of gas in the energy mix must however be accompanied by a greater focus on control of methane emissions. TASK To preserve the advantage that gas offers in terms of GHG emissions compared to coal for electricity generation, it is necessary to strictly reduce the methane emissions associated with the production and transportation of gas, i.e. along the whole gas value chain. TotalEnergies' methane emissions of oil and gas assets are below 0.15% of the Company's marketed operated gas production and one of the best amongst its peers. For gas producing assets, intensity is below 0.1%. Improving measurement of these emissions and their reduction is a priority for TotalEnergies in terms of environmental impact. In line with the Glasgow agreement, the Company is setting new targets for the current decade: reductions from 2020 levels of 50% by 2025 and 80% by 2030. The Company is also maintaining its target of keeping methane intensity below 0.1% across its operated gas facilities. ACTION On this basis, since 2014 the Company has been a member of Oil & Gas Methane Partnership between governments and industrial companies for the improvement of tools to measure and control methane emissions set up by the UN Environment Program, and the non-profit organization Environmental Defense Fund. In 2020, the Company is part of OGMP 2.0, the second phase of the United Nations Environment Program's Oil & Gas Methane Partnership. OGMP 2.0 outlines a reporting framework that encompasses the entire gas value chain and non-operated scope, including a breakdown of emissions by source, information on inventory methodologies and the use of airborne measurement campaigns. RESULTS In late 2021, TotalEnergies was awarded Gold Standard status by OGMP 2.0, the highest level of recommended reporting practices for its operated and non-operated assets. It will implement the necessary continuous improvement measures to maintain this level for methane emissions measurement and reporting. TotalEnergies has also reduced its methane emissions by 50% between 2010 and 2020. The impact is high. Time scale: short term (two years), medium term (until 2030) and long term (beyond 2030).</p>
Investment in R&D	Yes	<p>Each year TotalEnergies devotes around 1 B\$ to R&D and mobilizes more than 4,000 employees. To support its transformation strategy, the Company has substantially re-oriented its R&D since 2021: more than 50% of its R&D focuses on new energies (renewables, biomass...) and to reducing its environmental footprint (methane, CCUS, biodiversity,...), compared to less than 30% five years ago. This move towards new energies points to the Company's future. To accelerate this transformation in its R&D, TotalEnergies forges partnerships with industrial firms and academic researchers. SITUATION TotalEnergies believes that Carbon Capture, Utilization and Storage (CCUS) is one of the elements needed for the fight against climate change. It is particularly interested in the development of new business and industrial models associated with this value chain. TASK TotalEnergies is seeking to develop new businesses that will enable its industrial, residential and power-generating customers to capture, store and reuse their CO2 emissions. ACTION The Company increased the budget associated to CCS. CCS development will be supported by this R&D program, our experience in geosciences (needed for CO2 storage), and in business development. TotalEnergies is devoting around 10% out of 849 M\$ of its R&D investments to CCS. RESULTS Several projects have been launched in CCS, including Northern Lights, the first large-scale carbon transport and storage project. Approved by the Norwegian government in 2020, the project is currently in the construction phase. It will allow industrial emitters in Norway and elsewhere in Europe to store their emissions. In the Netherlands, the Company is studying a project to capture 900,000 t/y of CO2 generated by the Zeeland refinery's hydrogen plant as of 2026. The carbon would then be transported and stored. The CO2 will be injected using the wells and platforms that it operates. The project aims to store the CO2 safely and permanently in depleted offshore gas reservoirs at a depth of about 4 kilometers. TotalEnergies and its partners have signed an agreement in 2021 called Aramis for the transportation of CO2. This project allows the joint development of new CO2 transportation infrastructure from Rotterdam to storage in depleted offshore gas fields. The impact is high. Time scale: short term, medium term and long term.</p>
Operations	Yes	<p>SITUATION For more than a decade, TotalEnergies has integrated climate changes issues in the way it operates. In particular, it has led the Company to reduce routine flaring in a proactive manner, as well as to introduce energy efficiency efforts wherever possible. TASKS TotalEnergies targets to reduce methane emissions (50% from 2020 levels by 2025 and 80% from 2020 levels by 2030) to move towards zero methane and an objective of less than 0.1 million cubic meters per day for routine gas flaring at our operated assets by 2025, before eliminating flaring completely by 2030. ACTIONS TotalEnergies identified the Ofon field as a major contributor to its gas flaring volumes and responded by developing a project to stop flaring by end of 2014. In 2021, Venting has been restricted at the Anguille site in Gabon and Elgin-Franklin in the U.K. and Instrument gas has been reduced on site in Argentina and the U.S. (Barnett) by replacing the use of methane for instrumentation with compressed air. RESULTS In 2014, the reduction in gas flaring in OFON has led to reduction of greenhouse gas emissions from 80kt CO2e to less than 8 ktCO2e per year. In 2021, as for Anguille and Elgin Franklin, Methane emissions were reduced by about 6 kt/y. Finally, by installing 400 units between now and 2024 in Argentina and in Barnett, emissions will be reduced by 7 kt annually. The impact is high. Time scale: short term (two years), medium term (until 2030) and long term (beyond 2030).</p>

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Acquisitions and divestments Access to capital Assets Liabilities	<p>Revenues: Internal studies conducted by TotalEnergies have shown that assuming a carbon price of \$200/ton as from 2030 and an annual increase of 2% thereafter (i.e., a \$100/ton increase from the base scenario), TotalEnergies estimates a negative impact of around 9% on the discounted present value of its assets (upstream and downstream). The impact is low-medium. Time scale: short term (two years), medium term (until 2030) and long term (beyond 2030). To ensure the viability of TotalEnergies' projects and our long-term strategy with regard to climate change issues, TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher). In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward. This is consistent with TotalEnergies' support for mechanisms to replace coal with gas in power generation and our investments in low-carbon energies. Operating costs, acquisition, divestments TotalEnergies' strategy is built around four key areas that integrate the challenges of climate change: - Electricity – Becoming a world leader in renewable electricity by integrating the value chain from production to sales - Natural gas: transition fuel - Petroleum products: adapting to demand - Promoting circular management of resources To ensure the viability of its projects and long-term strategy in light of the challenges raised by climate change, the Company integrates into the financial evaluation of investments presented to the Executive Committee, an internal CO2 price of \$40/ton or the actual price of CO2 in a given country if higher when evaluating its investments, with the assumption of a linear increase to \$100/ton as from 2030 and a sensitivity of \$200/t as from 2030, independent of the Brent price scenarios. - In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward. - In addition, TotalEnergies assesses its portfolio's resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests. The impact is medium. This strategy is reflected in TotalEnergies acquisitions and divestments: - Divestments: Following completion of the sale in 2015 of its subsidiary TotalEnergies Coal South Africa, the Company ceased its coal production activities. In addition, in 2016 the Company ended its coal trading activities. In 2018 the Company sold its interests in the Joslyn oil sands project. - Acquisitions: TotalEnergies acquired Eren (2017, renewable energy) Direct Energie (2018, gas and electricity suppliers on the French and Belgian markets), Quadran (renewable energy 2018), Saft (2016 - Energy Storage), Engie's LNG assets (2018), G2Mobility (2018), Energias de Portugal's (2020), Foronche (2021 Biogas). The impact is high. Capital expenditures/capital allocation In affirming its ambition to be a major player in the energy transition and to get to net zero by 2050, together with society, TotalEnergies is committed to profoundly transforming its production and sales while continuing to meet the needs of a growing population. The Energy transition involves electrifying energy uses, which requires a massive increase in green electrons production. TotalEnergies is deploying across the entire renewable electricity value chain, from production and storage to trading and sales, in accordance with a selective, profitable approach. In the past four years, the Company's gross installed capacity for renewable power grew from 0.7 GW in 2017 to more than 10 GW in 2021. The objective is to have 35 GW of gross capacity in 2025 and 100 GW in 2030. The 2025 figure is based on projects that have been identified or are in development. The Company's goal is to increase electricity production from 21 TWh in 2021 to 120 TWh in 2030. In five years, the Company has invested more than 10 B\$, primarily in photovoltaic electricity and offshore wind, for an average of 2 B\$ per year. In 2021, TotalEnergies lifted its investments in electricity and renewables to more than 3 B\$, or 25% of its net investments. It intends to finance investments of more than 60 b€ in renewable power generation capacity by 2030. The Company makes profitable investments, meaning projects with a return of more than 10% (Return on equity, including partial divestments). The mix combines regulated markets with deregulated markets integrated across the entire electricity value chain. As a result, the Renewables & Electricity business's EBITDA exceeded 1 B\$ in 2021. In the hydrocarbon area, TotalEnergies has been shifting progressively its investment efforts from oil to gas. Gas was a third of our production ten years ago and 50% today. The energy transition has therefore a strong impact on our capital allocation. Additionally, through the integration of a carbon cost in all new capital expenditure decisions since 2008 for all its new activities brought to Excom. TotalEnergies directly integrate the impact of its future greenhouse gas emissions. In order to ensure the viability of its projects and long-term strategy in light of the challenges raised by climate change, from 2016 to 2019, the Company integrates, into the financial evaluation of investments presented to the Executive Committee, a long-term CO2 price of \$30 to \$40/ton (depending on the price of crude oil), or the actual price of CO2 in a given country if higher. For 2022 projects, the CO2 price has been increased to \$100/t from 2023 onward. In addition, TotalEnergies assesses its portfolio's resilience, including for new material investments, on the basis of relevant scenarios and sensitivity tests. The impact is medium. Access to capital The growing concern of certain stakeholders with regards to climate change could also have an impact on certain external financing of the Company's projects or influence certain investors involved in the oil and gas sector. In June 2017, the TCFD of the G20's Financial Stability Board published its final recommendations on information pertaining to climate to be released by companies. TotalEnergies publicly announced in 2017 its support for the TCFD and its recommendations. TotalEnergies discloses its climate related Governance, Strategy, Risk Management, and Metric & Target according to the TCFD recommendations. The impact is low. Assets Assuming a carbon price of \$200/ton as from 2020 and an annual increase of 2% thereafter (i.e., a \$100/ton increase from the base scenario), TotalEnergies estimates a negative impact of around 9% on the discounted present value of its assets. In addition, TotalEnergies also reviewed its upstream assets that can be qualified as "stranded". 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 and to approve no new projects for increasing the capacity of these Canadian oil sand assets.</p>

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

Yes

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's transition to a 1.5°C world.

Financial Metric

Other, please specify (R&D investments)

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

50

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

Each year TotalEnergies devotes around 1 B\$ to R&D and mobilizes more than 4,000 employees. To support its transformation strategy, the Company has substantially re-oriented its R&D since 2021; today, more than 50% of its R&D focuses on new energies and to reducing its environmental footprint compared to less than 30% five years ago. We have accounted as "aligned with a 1.5°C world" the R&D investments on Methane reduction, CCUS, Water, Biodiversity, Batteries and new energies (50% in 2021, guidance for 2022: 57%). This move towards new energies points to the Company's future. To accelerate this transformation in its R&D, TotalEnergies forges partnerships with industrial firms and academic researchers. For example, TotalEnergies is developing pilot units near its Leuna refinery in Germany to make molecules that can be converted into sustainable aviation fuel using green hydrogen and captured CO₂. The CO₂ will be captured in the refinery's emissions, and the hydrogen will be produced by a 1 MWe high temperature electrolyzer (more efficient than a low-temperature electrolyzer). The hydrogen reacts with the CO₂ to produce methanol, a synthetic fuel. The Company anticipates an energy efficiency gain of around 30% across the pilot unit's production chain.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

30

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

30

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

TotalEnergies is a multi-energy company that invests in oil and biofuels, natural gas and green gases, renewables and electricity. We have accounted as "aligned with a 1.5°C world" the CAPEX associated with our renewables, electricity and new molecules businesses only, even though we believe that all our investments, including in oil and gas, are consistent with our Carbon neutrality ambition in 2050, in line with the NZE scenario in 2050. Investments in new energies (renewables, electricity and new molecules) represented 30% of the Company's Capex in 2021 (or around 4 B\$). For 2022-2025, TotalEnergies plans to make net investments of 13 B\$ to \$16 B\$ a year. The Company will devote 50% of its investments to maintaining and adapting its upstream and downstream oil operations and the other 50% to growth in production and energy sales: 20% for LNG, which is a transition fuel, 25% for renewables and electricity and 5% for new molecules (biofuels, biogas, hydrogen and e-fuels).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

Intensity target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO₂e)

42000000

Base year Scope 2 emissions covered by target (metric tons CO₂e)

4000000

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

46000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

13

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

40020000

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

33300000

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

2400000

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

35700000

% of target achieved relative to base year [auto-calculated]

172.240802675585

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

At the beginning of 2019, TotalEnergies announced a target to reduce GHG emissions (Scopes 1 + 2) on its hydrocarbon upstream activities from 46 Mt CO2e to less than 40 Mt CO2e in 2025. The 2021 Scope 1+2 emissions were at 35.7 Mt of CO2e compared to 38 Mt in 2020.

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: improve the efficiency of our facilities, reduce methane emissions, capture & store carbon from our facilities and offset residual emissions. Progress made: emissions from operated facilities have declined by over 20% since 2015. This includes 4 Mt of emissions from CCGT power plants following the implementation of the Company's new strategy in electricity to have flexible generation capacity; the decline for operated oil & gas activities actually came to 30%.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 2

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

42000000

Base year Scope 2 emissions covered by target (metric tons CO2e)

4000000

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

46000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

40

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

27600000

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

33300000

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

2400000

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

35700000

% of target achieved relative to base year [auto-calculated]

55.9782608695652

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

TotalEnergies set a target to reduce GHG net emissions (Scopes 1+2) of its hydrocarbon upstream activities by at least 40% compared to 2015. The calculation of net emissions considers natural carbon sinks like forest, regenerative agriculture and wetlands

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: improve the efficiency of our facilities, reduce methane emissions, capture & store carbon from our facilities and offset residual emissions. Progress made: emissions from operated facilities have declined by over 20% since 2015. This includes 4 Mt of emissions from CCGT power plants following the implementation of the Company's new strategy in electricity to have flexible generation capacity; the decline for operated oil & gas activities actually came to 30%.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 3

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

42000000

Base year Scope 2 emissions covered by target (metric tons CO2e)

4000000

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

46000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

33300000

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

2400000

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

35700000

% of target achieved relative to base year [auto-calculated]

22.3913043478261

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

TotalEnergies shares the ambition to get to Net Zero emissions by 2050, together with society with an objective of net zero across TotalEnergies' worldwide operations by 2050 or sooner for scope 1 and 2 (Net Emissions). The calculation of net emissions considers natural carbon sinks like forest, regenerative agriculture and wetlands.

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: improve the efficiency of our facilities, reduce methane emissions, capture & store carbon from our facilities and offset residual emissions. Progress made: the credibility of the Company's ambition for 2050 hinges on its ability to show the progress it has made so far, and it is firmly committed to doing that by publishing its 2021 results, which are in line – and even often in advance – with its targets: Emissions from operated facilities have declined by approximately 20% since 2015. This includes 4 Mt of emissions from CCGT power plants following the implementation of the Company's new strategy in electricity to have flexible generation capacity; the decline for operated oil & gas activities actually came to 30%.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 4

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 11: Use of sold products

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3 emissions covered by target (metric tons CO2e)

410000000

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

410000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

3

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

397700000

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

370000000

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

370000000

% of target achieved relative to base year [auto-calculated]

325.20325203252

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

TotalEnergies set a target to reduce Scope 3 GHG emissions related to its customers' use of energy products to less than 400 Mt CO2e, which is a level lower than in 2015, despite the growth of its energy production in the coming decade.

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: TotalEnergies has set a target for 2030 of reducing its global Scope 3 emissions – i.e., those from the energy products used by our customers – to below 2015 levels, even though over the same period the Company plans to produce and sell 30% more energy products due, in particular, to growth in sales of electricity and LNG. Conversely, to prepare for the decline in demand for oil by the end of the decade, the Company has embarked on a voluntary strategy of adapting its Downstream activities in the refining and distribution of petroleum products to align them with its oil production, and it has set itself a new target of lowering Scope 3 emissions from petroleum products sold worldwide by over 30% between 2015 and 2030. Progress made: Our Scope 3 cat. 11 was at 370,000,000 tCO2e in 2021. Reducing sales of petroleum products by more than 30% and boosting sales of biofuels to three times their current level will help reduce Scope 3 emissions in absolute terms over the 2015-2030 period. The sharp rise in sales of electricity (a twentyfold increase over the 2015-2030 period) will make it possible to decarbonize the Company's energy mix without adding indirect Scope 3 emissions (Category 11). Gas is a transition fuel that allows customers to replace the higher emitting coal they use and that TotalEnergies does not produce or sell (the Company withdrew from coal in 2016). TotalEnergies will double its sales of LNG over the 2019-2030 period.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 5

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 11: Use of sold products

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3 emissions covered by target (metric tons CO2e)

410000000

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

410000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

370000000

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

370000000

% of target achieved relative to base year [auto-calculated]

9.75609756097561

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

TotalEnergies shares the ambition to get to Net Zero emissions by 2050, together with society and aims at achieving carbon neutrality of its sold energy products used by its customers. TotalEnergies' vision is that the Scope 3 emissions will fall to 100 Mt CO2e in 2050 and will be captured and stored (CCS) or used to produce e-fuels (CCU).

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: - 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/year by 2030 - Forge partnerships with our top 1000 suppliers to reduce emissions from our purchasing. Progress made: Our Scope 3 cat. 11 was at 370,000,000 tCO2e in 2021. Reducing sales of petroleum products by more than 30% and boosting sales of biofuels to three times their current level will help reduce Scope 3 emissions in absolute terms over the 2015-2030 period. The sharp rise in sales of electricity (a twentyfold increase over the 2015-2030 period) will make it possible to decarbonize the Company's energy mix without adding indirect Scope 3 emissions (Category 11). Gas is a transition fuel that allows customers to replace the higher emitting coal they use and that TotalEnergies does not produce or sell (the Company withdrew from coal in 2016). TotalEnergies will double its sales of LNG over the 2019-2030 period.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 6

Year target was set

2021

Target coverage

Country/region

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 11: Use of sold products

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

22000000

Base year Scope 2 emissions covered by target (metric tons CO2e)

2000000

Base year Scope 3 emissions covered by target (metric tons CO2e)

256000000

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

280000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

30

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

196000000

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

19000000

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

1000000

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

202000000

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

222000000

% of target achieved relative to base year [auto-calculated]

69.047619047619

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

In support of the European Union's ambitions on the path toward carbon neutrality, TotalEnergies set a target to reduce GHG emissions from energy products throughout the value chain (from production to use by its customers) (Scope 1+2+3) by at least 30% relative to 2015 in Europe (European Union, Norway, the UK and Switzerland).

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: TotalEnergies supports the "Fit for 55" package, and particularly some key components that are aligned with its strategy and positions: - Broader use of carbon pricing. - A massive expansion of renewable energies. - The deployment of infrastructure (charging stations, hydrogen). - The development of low-carbon and renewable fuels for the transportation industry. In support of those commitments by the European Commission, it has set a target in Europe of reducing Scope 1+2+3 emissions by 30% between now and 2030. Progress made: We have reduced GHG emissions (Scope 1+2+3) in Europe by 14% excluding the COVID-19 effect in 2021, between 2015 and 2021.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 7

Year target was set

2021

Target coverage

Product-level

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 11: Use of sold products

Base year

2015

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3 emissions covered by target (metric tons CO2e)

350000000

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

350000000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

30

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

245000000

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

255000000

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

255000000

% of target achieved relative to base year [auto-calculated]

90.4761904761905

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

TotalEnergies set a target of lowering Scope 3 from petroleum products sold worldwide by over 30% between 2015 and 2030. This target KPI was set Q1 2022.

Plan for achieving target, and progress made to the end of the reporting year

Plan for achieving target: To prepare for the decline in demand for oil by the end of the decade, the Company has embarked on a voluntary strategy of adapting its Downstream activities in the refining and distribution of petroleum products to align them with its oil production, and it has set itself a new target of lowering Scope 3 emissions from petroleum products sold worldwide by over 30% between 2015 and 2030. Reducing sales of petroleum products by more than 30% and boosting sales of biofuels to three times their current level will help reduce Scope 3 emissions in absolute terms over the 2015-2030 period. Progress made: Our scope 3 global Oil is at 255 MtCO2e in 2021, down by 27% from 2015 (350 MtCO2e).

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.1b**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).****Target reference number**

Int 1

Year target was set

2021

Target coverage

Company-wide

Scope(s)Scope 1
Scope 2
Scope 3**Scope 2 accounting method**

Market-based

Scope 3 category(ies)

Category 11: Use of sold products

Intensity metricOther, please specify (gCO₂e per MegaJoule)**Base year**

2015

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)**Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)****Intensity figure in base year for Scope 3 (metric tons CO₂e per unit of activity)****Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)**

0.071

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

100

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2025

Targeted reduction from base year (%)

10

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.0639

% change anticipated in absolute Scope 1+2 emissions

-15

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)**Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)****Intensity figure in reporting year for Scope 3 (metric tons CO₂e per unit of activity)****Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)**

0.063

% of target achieved relative to base year [auto-calculated]

112.676056338028

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

Lifecycle carbon intensity of energy products used by our customers (71 gCO₂e/MJ in 2015), that is 2015's base 100. This target KPI was set Q1 2022. The carbon intensity indicator measures the average greenhouse gas emissions of a unit of energy sold to our customers across its lifecycle (i.e., Scope 1+2+3), from production to final use.

Plan for achieving target, and progress made to the end of the reporting year

In 2021, we continued to reshape our energy mix thanks to increased sales of LNG (up 10% from 2021 to 42 Mt in 2021) and electricity (up 20% from 2020 at 57 TWh) and a 10% decrease in petroleum product sales. The carbon intensity of products sold continued to improve with a 2% decline (excluding the impact of Covid-19). Growth in electricity will account for nearly two-thirds of the decrease in lifecycle carbon intensity between 2015 and 2030. The second lever involves reducing sales of petroleum products and increasing production of gas (especially LNG) and sales of products based on biomass. Lastly, carbon sinks and lower emissions from our facilities will each contribute around 5% of the decrease in carbon intensity.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Int 2

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 11: Use of sold products

Intensity metricOther, please specify (gCO₂e per Megajoules)**Base year**

2015

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)**Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)****Intensity figure in base year for Scope 3 (metric tons CO₂e per unit of activity)****Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)**

0.071

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

100

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

20

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.0568

% change anticipated in absolute Scope 1+2 emissions

-40

% change anticipated in absolute Scope 3 emissions

-2.5

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)**Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)****Intensity figure in reporting year for Scope 3 (metric tons CO₂e per unit of activity)****Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)**

0.063

% of target achieved relative to base year [auto-calculated]

56.338028169014

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

Lifecycle carbon intensity of energy products used by our customers (71 gCO₂e/MJ in 2015), that is 2015's base 100. This target KPI was set Q1 2022. The carbon intensity indicator measures the average greenhouse gas emissions of a unit of energy sold to our customers across its lifecycle (i.e., Scope 1+2+3), from production to final use.

Plan for achieving target, and progress made to the end of the reporting year

In 2021, we continued to reshape our energy mix thanks to increased sales of LNG (up 10% from 2021 to 42 Mt in 2021) and electricity (up 20% from 2020 at 57 TWh) and a 10% decrease in petroleum product sales. The carbon intensity of products sold continued to improve with a 2% decline (excluding the impact of Covid-19). Growth in electricity will account for nearly two-thirds of the decrease in lifecycle carbon intensity between 2015 and 2030. The second lever involves reducing sales of petroleum

products and increasing production of gas (especially LNG) and sales of products based on biomass. Lastly, carbon sinks and lower emissions from our facilities will each contribute around 5% of the decrease in carbon intensity.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Int 3

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 11: Use of sold products

Intensity metric

Other, please specify (gCO₂e per Megajoules)

Base year

2015

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)

0.071

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

100

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2050

Targeted reduction from base year (%)

100

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0

% change anticipated in absolute Scope 1+2 emissions

-100

% change anticipated in absolute Scope 3 emissions

-100

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)

0.063

% of target achieved relative to base year [auto-calculated]

11.2676056338028

Target status in reporting year

New

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

Lifecycle carbon intensity of energy products used by our customers (71 gCO₂e/MJ in 2015), that is 2015's base 100. This target KPI was set Q1 2022. The carbon intensity indicator measures the average greenhouse gas emissions of a unit of energy sold to our customers across its lifecycle (i.e., Scope 1+2+3), from production to final

use.

Plan for achieving target, and progress made to the end of the reporting year

In 2021, we continued to reshape our energy mix thanks to increased sales of LNG (up 10% from 2021 to 42 Mt in 2021) and electricity (up 20% from 2020 at 57 TWh) and a 10% decrease in petroleum product sales. The carbon intensity of products sold continued to improve with a 2% decline (excluding the impact of Covid-19). Growth in electricity will account for nearly two-thirds of the decrease in lifecycle carbon intensity between 2015 and 2030. The second lever involves reducing sales of petroleum products and increasing production of gas (especially LNG) and sales of products based on biomass. Lastly, carbon sinks and lower emissions from our facilities will each contribute around 5% of the decrease in carbon intensity.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to reduce methane emissions
Net-zero target(s)
Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Total methane emissions in CO2e
--------------------------	---------------------------------

Target denominator (intensity targets only)

<Not Applicable>

Base year

2020

Figure or percentage in base year

1600000

Target year

2025

Figure or percentage in target year

800000

Figure or percentage in reporting year

1225000

% of target achieved relative to base year [auto-calculated]

46.875

Target status in reporting year

New

Is this target part of an emissions target?

Abs1, Abs2, Abs3, Abs6

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

TotalEnergies added phased targets for reducing methane emissions (50% from 2020 levels by 2025 and 80% from 2020 levels by 2030) to move towards zero methane. This target was set in Q1 2022.

Plan for achieving target, and progress made to the end of the reporting year

Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions across the entire value chain. The Company operates a site for testing methane emissions measurement technology. Known as the TADI complex, it is unparalleled in Europe; only one comparable site exists worldwide, in the United States. In addition, TotalEnergies is speeding up deployment of its drone-mounted methane detection technology, AUSEA, at all of its operated sites starting in 2022. The Company is also enhancing its reporting as part of OGMP 2.0, the second phase of the United Nations Environment Programme's Oil & Gas Methane Partnership. OGMP 2.0 outlines a reporting framework that encompasses the entire gas value chain and non-operated scope, including a breakdown of emissions by source, information on inventory methodologies and the use of airborne measurement campaigns. In late 2021, TotalEnergies was awarded Gold Standard status. It will implement the necessary continuous improvement measures to maintain this level for methane emissions measurement and reporting. Abating our emissions at each

source Methane emissions are primarily attributable to venting (more than half the total) and flaring (a quarter of the total); the rest are fugitive emissions (i.e., leaks at valves, flanges and couplings) or the product of incomplete gas combustion at our facilities. To reach zero methane emissions, stronger action will be taken on each of these emission sources: - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria. Moreover, all new projects include strict design criteria for preventing methane emissions: no instrument gas, no continuous cold venting and the systematic use of closed flares. All of these practices have been implemented at the CLOV site in Angola, Moho-Nord in the Republic of the Congo and Egina in Nigeria.

List the actions which contributed most to achieving this target

<Not Applicable>

Target reference number

Oth 2

Year target was set

2020

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Methane leakage rate (%)
--------------------------	--------------------------

Target denominator (intensity targets only)

year

Base year

2019

Figure or percentage in base year

0.15

Target year

2025

Figure or percentage in target year

0.2

Figure or percentage in reporting year

0.13

% of target achieved relative to base year [auto-calculated]

-40

Target status in reporting year

Underway

Is this target part of an emissions target?

Abs1, Abs2, Abs3, Abs6

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

In 2021, the methane emission intensity for the upstream hydrocarbon operated facilities scope is 0.13% of the commercial gas produced. The methane emissions represent 4% of the Company's GHG emissions (CO2-eq) and approximately 30% are related to flaring. The upstream Oil and Gas asset CH4 emissions represent 98% of the Company methane emissions in 2021, with 49 kt of methane. The Company is maintaining its target of keeping methane intensity below 0.2% across its operated facilities by 2025 (Upstream), hence a result >100% in 2021.

Plan for achieving target, and progress made to the end of the reporting year

Achieving those objectives requires improved measuring capability and redoubled efforts on emissions sources. Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions across the entire value chain. The Company operates a site for testing methane emissions measurement technology. Known as the TADI complex, it is unparalleled in Europe. In addition, TotalEnergies is speeding up deployment of its drone-mounted methane detection technology, AUSEA, at all of its operated sites starting in 2022. Methane emissions are primarily attributable to venting and flaring; the rest are fugitive or the product of incomplete gas combustion at our facilities. Stronger action will be taken on each of these emission sources: - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria. Moreover, all new projects include strict design criteria for preventing methane emissions: no instrument gas, no continuous cold venting and the systematic use of closed flares. All of these practices have been implemented at the CLOV site in Angola, Moho-Nord in the Republic of the Congo and Egina in Nigeria.

List the actions which contributed most to achieving this target

<Not Applicable>

Target reference number

Oth 3

Year target was set

2020

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Methane leakage rate (%)
--------------------------	--------------------------

Target denominator (intensity targets only)

year

Base year

2019

Figure or percentage in base year

0.101

Target year

2030

Figure or percentage in target year

0.1

Figure or percentage in reporting year

0.099

% of target achieved relative to base year [auto-calculated]

200

Target status in reporting year

Underway

Is this target part of an emissions target?

Abs1, Abs2, Abs3, Abs6

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

In 2021, the methane emission intensity for the upstream gas operated facilities scope is lower than 0.1% of the commercial gas produced. The Company is maintaining its target of keeping methane intensity below 0.1% across its operated gas facilities by 2030 (Upstream).

Plan for achieving target, and progress made to the end of the reporting year

Achieving those objectives requires improved measuring capability and redoubled efforts on emissions sources. Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions across the entire value chain. The Company operates a site for testing methane emissions measurement technology. Known as the TADI complex, it is unparalleled in Europe. In addition, TotalEnergies is speeding up deployment of its drone-mounted methane detection technology, AUSEA, at all of its operated sites starting in 2022. Methane emissions are primarily attributable to venting and flaring; the rest are fugitive or the product of incomplete gas combustion at our facilities. Stronger action will be taken on each of these emission sources: - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria. Moreover, all new projects include strict design criteria for preventing methane emissions: no instrument gas, no continuous cold venting and the systematic use of closed flares. All of these practices have been implemented at the CLOV site in Angola, Moho-Nord in the Republic of the Congo and Egina in Nigeria.

List the actions which contributed most to achieving this target

<Not Applicable>

Target reference number

Oth 4

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify	Other, please specify (routine flaring, Mm3/d)
-----------------------	--

Target denominator (intensity targets only)

<Not Applicable>

Base year

2015

Figure or percentage in base year

2.3

Target year

2025

Figure or percentage in target year

0.1

Figure or percentage in reporting year

0.7

% of target achieved relative to base year [auto-calculated]

72.7272727272727

Target status in reporting year

New

Is this target part of an emissions target?

Abs1, Abs2, Abs3, Abs6

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

Routine flaring has been reduced by 90% since 2010, and the Company has set a new target to bring the level below 0.1 million cubic meters per day as from 2025. This target was set Q1 2022.

Plan for achieving target, and progress made to the end of the reporting year

Restricting routine flaring is a priority for reducing greenhouse gas emissions. Since 2000, TotalEnergies has made a commitment not to include any 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 the practice altogether by 2030. Routine flaring has been reduced by 90% since 2010, and the Company has set a new target to bring the level below 0.1 million cubic meters per day as from 2025.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Abs2

Abs3

Abs4

Abs6

Target year for achieving net zero

2050

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain target coverage and identify any exclusions

TotalEnergies announced its ambition to reach Carbon Neutrality by 2050 or sooner, for its worldwide operated activities, Scope 1 + 2.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

- Carbon Capture and Storage (CCS): TotalEnergies allocated 100 M\$ to CCS research and projects in 2021, and by 2030 it expects to develop a storage capacity of around 10 Mt per year. - Natural Carbon sinks: backed by an average annual budget of 100 M\$ between 2020 and 2030, TotalEnergies aims to build up a stock of 100 million credits and develop the annual capacity to produce at least 5 million credits a year as from 2030. The Company does not intend to trade these carbon credits but rather to gradually use its stock and annual production to neutralize its residual Scope 1+2 emissions as from 2030. As of end-2021, TotalEnergies' stock stood a little under 7 million certified credits. The cumulative budget for all of the signed operations amounts to nearly 350 M\$ over their lifetime, for an anticipated cumulative volume of credits of 23 million in 2030 and 31 million in 2050.

Planned actions to mitigate emissions beyond your value chain (optional)

Target reference number

NZ2

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs4

Abs5

Abs6

Abs7

Target year for achieving net zero

2050

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain target coverage and identify any exclusions

TotalEnergies has the ambition to reach Carbon Neutrality by 2050 or sooner, for all worldwide indirect emissions related to the use of by its customers of energy product sold for end use (Scope 3).

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

In 2050, Scope 3 emissions could be falling from 410 to 100 Mt CO2e and could be offset by CO2 stored (CCS) or used to make e-fuels. TotalEnergies has allocated 100 M\$ to CCS research and projects in 2021, and by 2030 it expects to develop a storage capacity of around 10 Mt per year.

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	100	0
To be implemented*	100	3000000
Implementation commenced*	150	2000000
Implemented*	100	2000000
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
---	----------------------

Estimated annual CO2e savings (metric tonnes CO2e)

2000000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

200000000

Investment required (unit currency – as specified in C0.4)

450000000

Payback period

21-25 years

Estimated lifetime of the initiative

>30 years

Comment

Downstream, for which energy consumption is a key factor in production costs, is continuing its efforts of recent years to improve energy efficiency as part of an investment plan totaling 450 M\$ over the period 2018-2025. Monetary savings are estimated based on TotalEnergies' internal carbon price. Based on externally available literature and internal studies, the investment required lies between 30 and 300 \$ per ton of CO2.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	EU ETS, Carbon Pollution Reduction Scheme (CPRS – Australia).
Dedicated budget for energy efficiency	In Exploration & Production and the Refining & Chemicals divisions.
Dedicated budget for low-carbon product R&D	Approximately 50% of the Company R&D budget dedicated to low carbon technologies.
Dedicated budget for other emissions reduction activities	TotalEnergies Ecosolutions program, and dedicated budget for CCS (CO2 capture and storage) R&D and development.
Employee engagement	Climate-target-related performance criteria with other sustainable development criteria (HSE, CSR, HR and diversity) in the Chairman and CEO's and senior executives variable compensation. climate-target-related performance criteria to all performance share beneficiary employees.
Internal price on carbon	TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher), with the assumption of a linear increase to \$100 per ton as from 2030. Beyond 2030, an annual increase of 2% is applied. For 2022 projects, the CO2 price has been increased to 100\$/t from 2023 onward.
Partnering with governments on technology development	In particular, with the French agency ADEME, and also through the participation in R&D JIPs (Joint Industry Projects) in Canada, Australia, Norway, Europe.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other	Other, please specify (various, including Biofuels, fuels, Bitumen, Lubricants, Offgrid (energy access), Renewable energy production, Resins, Special fluids, Storage and batteries)
-------	--

Description of product(s) or service(s)

TotalEnergies Ecosolutions: Products or services that provide a significant competitive advantage in terms of environmental impacts reduction (reducing consumption of energy, water and other resources or environmental impact) when compared with the market standard. It represents 104 products and services as of the end of 2021 for an amount of 2 MTCO₂e avoided in 2021. Among these products: Fuel Eco lubricants, motor fuels, bitumen, special fluids and solvents, polymers, resins, solar panels. Energy Efficiency: White Certificates exist in various European countries (Italy, UK, France, etc.). In France, TotalEnergies' compliance with energy efficiency certificate requirements has led to around 100 TWhc/year of energy savings during the last 3 years. TotalEnergies offers customers an energy efficiency consultancy service so that they can optimize their own energy consumption and reduce their GHG emissions.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (This estimation is based on an average ratio calculated by ADEME (Agence de l'Environnement et de la Maîtrise de l'Energie).)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Not applicable

Functional unit used

Products or services that provide a significant competitive advantage in terms of environmental impacts reduction when compared with the market standard

Reference product/service or baseline scenario used

average of similar products available on the market

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

2000000

Explain your calculation of avoided emissions, including any assumptions

This estimation is based on an average ratio calculated by ADEME (Agence de l'Environnement et de la Maîtrise de l'Energie). The 10% revenues are based on sales of TotalEcosolutions' products vs. total sales from the Marketing & Services division.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

10

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Power	Solar PV
-------	----------

Description of product(s) or service(s)

Electricity: TotalEnergies is also involved in electric mobility, electricity storage with Saft batteries, and announced in 2020 the creation of a joint venture with Company Stellantis N.V. called Automotive Cells Company (ACC) to develop and produce high performance electric vehicle batteries. In 2020, TotalEnergies created a solar power distribution joint venture with Adani Green Energy Limited (AGEL) in India. In 2021, TotalEnergies announced the acquisition of a 20% stake in AGEL, thereby strengthening TotalEnergies' strategic alliance with the Adani Company in the Indian market and the Company's positioning in renewable energies. Natural Gas: TotalEnergies has made various acquisitions, i.e. Engie and Anadarko LNG assets in Mozambique, launched some major LNG projects: Ichthys, Yamal LNG, Cameron, Arctic LNG 2 project, Energia Costa Azul. In 2018, TotalEnergies entered a partnership with the Adani Company, India's largest private conglomerate in energy and gas infrastructures. Biogas & hydrogen: In 2021, TotalEnergies announced the acquisition of Fonroche Biogaz, French market leader in biogas production. TotalEnergies also has an ambition to become a hydrogen producer and distributor. The Company and Engie signed a cooperation agreement to design, build and operate the Masshyllia project, the biggest renewable hydrogen production site in France. Biofuels: In 2021, TotalEnergies produced 391 kt of biofuels vs 257 kt in 2020, for a capacity of 500kt/y at La Mède.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (Cumulated GHG emissions of additional SunPower PV plant installed are compared to cumulated GHG emission of equivalent local electricity mix (kg CO₂e, over 30 years lifetime).)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Not applicable

Functional unit used

avoided emissions vs local energy mix

Reference product/service or baseline scenario used

Electricity: worldwide electricity mix vs PV panels Hydrocarbons: Oil Biogas: Gas Biofuels: Hc fuels

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

210000000

Explain your calculation of avoided emissions, including any assumptions

Cumulated GHG emissions of additional SunPower PV plant installed are compared to cumulated GHG emission of equivalent local electricity mix (kg CO2eq, over 30 years lifetime). The avoided emissions corresponding to SunPower PV plants installed by the end of 2021 are estimated at 14 Mt CO2, i.e. 7 Mt CO2 equity share for TotalEnergies. For the 2021 renewable electricity production only, these are estimated at 6,8 TWh. This example and the list of products above are only part of the total revenues from eligible activities according to EU taxonomy, that represented approximately 11% of the Company revenues from sales in 2021.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

11

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

The Company has been working on reducing its methane emissions for several years. It halved its operated methane emissions between 2010 and 2020. In line with the Glasgow agreements, the Company is setting new targets for the current decade: reductions from 2020 levels of 50% by 2025 and 80% by 2030. The Company is also maintaining its target of keeping methane intensity below 0.1% across its operated gas facilities. Achieving those objectives requires improved measuring capability and redoubled efforts on emissions sources.

Methane emissions have numerous and dispersed sources. TotalEnergies is a pioneer in detecting and quantifying emissions across the entire value chain. The Company operates a site for testing methane emissions measurement technology. Known as the TADI complex, it is unparalleled in Europe; only one comparable site exists worldwide, in the United State. In addition, TotalEnergies is speeding up deployment of its drone-mounted methane detection technology, AUSEA, at all of its operated sites starting in 2022.

The Company is also enhancing its reporting as part of OGMP 2.0, the second phase of the United Nations Environment Programme's Oil & Gas Methane Partnership. OGMP 2.0 outlines a reporting framework that encompasses the entire gas value chain and non-operated scope, including a breakdown of emissions by source, information on inventory methodologies and the use of airborne measurement campaigns. In late 2021, TotalEnergies was awarded Gold Standard status. It will implement the necessary continuous improvement measures to maintain this level for methane emissions measurement and reporting.

Methane emissions are primarily attributable to venting (more than half the total) and flaring (a quarter of the total); the rest are fugitive emissions (i.e., leaks at valves, flanges and couplings) or the product of incomplete gas combustion at our facilities (turbines, furnaces, boilers, etc.). In order to reach zero methane emissions, stronger action will be taken on each of these emission sources:

- reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.).

- reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year.

- leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria.

Moreover, all new projects include strict design criteria for preventing methane emissions: no instrument gas, no continuous cold venting and the systematic use of closed flares. All of these practices have been implemented at the CLOV site in Angola, Moho-Nord in the Republic of the Congo and Egina in Nigeria.

In 2021, Methane emissions represented 49 kilotons and around 3% of the Company's GHG emissions (CO2 eq), with approximately 30% related to flaring.

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Since 2006, TotalEnergies has engaged comprehensive leak detection and repair (LDAR) campaigns based on the use of Infra-Red cameras in most of its major upstream assets (Angola, Nigeria, UK, The Netherlands,...) and approximately 80% of upstream affiliates are equipped with Infra-Red cameras (other affiliates using contracted services). Those campaigns are performed by affiliates or contractors on a yearly basis and repairs are done as soon as reasonably practical, TotalEnergies' Refining operated sector is also completely covered by regular LDAR surveys using recognized methodologies.

TotalEnergies has various R&D programs dedicated to improve knowledge on measurement, detection and quantification of methane emissions, and to accelerate new technologies (cost-efficient sensors, remote detection, satellite, modeling.). In 2018, the transverse anomaly detection infrastructure (TADI) was inaugurated. The TADI platform aims to test and qualify innovative technologies for gas leak detection and quantification, TotalEnergies is the only O&G company being equipped with such testing platform. Four campaigns were performed in 2018, 2019 and 2020.

TotalEnergies is developing drones to detect and measure methane emissions, with a program names AUSEA (Airborne Ultra-light Spectrometer for Environmental Application), in partnership with France's National Center for Scientific Research (CNRS). AUSEA consists of a miniature sensor, weighing 1.4 kilograms and mounted on a drone, that quantifies emissions by measuring methane emissions in the plume and tracing them back to their source. It has proved more accurate than commercially available technology and has been successfully deployed in Nigeria, the Republic of the Congo and the Netherlands. TotalEnergies is speeding up deployment at all of its operated sites starting in 2022. In order to tend towards zero methane emissions, stronger action will be taken on leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022.

Based on this expertise and experience, TotalEnergies develops a dedicated monitoring program combining both aerial (satellite, drone) and ground based (Infra-Red Camera, fixed detection) campaigns which will be deployed over the next years depending on the type of site and the maturity of the technologies. In 2021, in Upstream, 3,9 kt of CH4 emissions compared to 6kt in 2020 and 7 kt in 2019, were due to fugitive losses and represents approximately 10% of the TotalEnergies emissions (49kt in 2021 vs 64kt in 2020). The main sources of fugitive losses could be valves, screwed connections, flanges, open-ended lines and pump seals, etc.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Restricting routine flaring is a priority for reducing GHG emissions. Since 2000, TotalEnergies has made a commitment to discontinue 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 the practice altogether by 2030. Routine flaring has been reduced by 90% since 2010, and the Company has set a new target to bring the level below 0.1 million cubic meters per day as from 2025.

Occasional, or non-routine, flaring connected with operational issues or the start-up of facilities has also been addressed with action plans, as has safety flaring, which is used to protect facilities. In Argentina and Bolivia, for example, the Company has reduced safety flaring by half, thanks to continuous monitoring of gas flows and optimized flaring parameters.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1 2015

Base year end

December 31 2015

Base year emissions (metric tons CO2e)

42000000

Comment

Scope 2 (location-based)

Base year start

January 1 2015

Base year end

December 31 2015

Base year emissions (metric tons CO2e)

4000000

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

January 1 2015

Base year end

December 31 2015

Base year emissions (metric tons CO2e)

410000000

Comment

We consider that most of our scope 3 emissions is composed of the use of sold products.

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

33300000

Start date

January 1 2021

End date

December 31 2021

Comment

This amount includes the impact of COVID-19. Scope 1 was estimated at 34 MtCO2eq if the COVID crisis did not happen.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

36000000

Start date

January 1 2020

End date

December 31 2020

Comment

This amount includes the impact of COVID-19. Scope 1 was estimated at 38 MtCO2eq if the COVID crisis did not happen.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

40661555

Start date

January 1 2019

End date

December 31 2019

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

2074000

Scope 2, market-based (if applicable)

2400000

Start date

January 1 2021

End date

December 31 2021

Comment

Scope 2 emissions: indirect emissions attributable to energy consumption by site.

Past year 1

Scope 2, location-based

2791597

Scope 2, market-based (if applicable)

2847912

Start date

January 1 2020

End date

December 31 2020

Comment

First year of scope 2 emissions market-based reporting is 2020, no historical data available.

Past year 2

Scope 2, location-based

3596127

Scope 2, market-based (if applicable)

0

Start date

January 1 2019

End date

December 31 2019

Comment

Scope 2 Market based was not calculated in 2019

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

7600000

Emissions calculation methodology

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

10

Please explain

Spend methodology was used unless data from suppliers was available. Emissions calculation methodology based on spend in USD and emission factors called « monetary ratio » for a specific sector. The emission factors come from reference databases such as CEDA & Base carbone (ADEME). This estimation has been calculated in collaboration with Ecoact using 2021 data.

Capital goods

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

755000

Emissions calculation methodology

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

10

Please explain

Spend methodology was used unless data from suppliers was available. Emissions calculation methodology based on spend in \$ and emission factors called « monetary ratio » for a specific sector. The emission factors come from reference databases such as CEDA & Base carbone (ADEME). This estimation has been calculated in collaboration with Ecoact using 2021 data. Cat. 2 is less than 1%.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

5000000

Emissions calculation methodology

Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

50

Please explain

Purchased 3rd party power sold by TotalEnergies. The percentage of Fuel-and-energy-related activities (not included in Scope 1 or 2) Scope 3 emissions is not significant compared to the emissions related to the use of sold products. (less than 1%).

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

7600000

Emissions calculation methodology

Spend-based method
Site-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

92

Please explain

GHG emissions from purchased transportation and distribution services paid for by TotalEnergies carried out with vehicles not owned by TotalEnergies. The detailed figures are collected for time charter and spot contracts, for sea transport. For land transport, Emissions calculation methodology based on spend in \$ and emission factors called « monetary ratio » for a specific sector. The emission factors come from reference databases such as CEDA & Base Carbone (ADEME). This estimation has been calculated in collaboration with EcoAct using 2021 data. Data from transport service providers used when available.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

139000

Emissions calculation methodology

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

10

Please explain

Emissions calculation methodology based on spend in \$ and emission factors called « monetary ratio » for a specific sector. The emission factors come from reference databases such as CEDA & Base Carbone (ADEME). This estimation has been calculated in collaboration with EcoAct using 2021 data. (less than 1%).

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

20000

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

The Business travel category is taking into account Air travel only and is not relevant compared to the use of sold product category (less than 1%).

Employee commuting

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

40000

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

TotalEnergies had 101,309 employees at the end of 2021 and, on average, according to the French Statistics Bureau INSEE, the average consumption is 0.67 tCO2 per annum. 40 % of homeworking in Europe. From our rough estimation, we can see that the final value (<0,05%) is not relevant compared to the use of sold product category.

Upstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

All capital goods are treated in Category 2, Capital assets section.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The percentage of processing of sold products Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The percentage of processing of sold products Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

370000000

Emissions calculation methodology

Other, please specify (guidelines published by IPIECA and conform to the GHG Protocol methodologies. Emissions are calculated based on sales of finished products for which the next stage is end use. Emission factor is applied to these sales to obtain an emission volume.)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

The Use of sold product is the main Scope 3 category for TotalEnergies.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The percentage of end of life treatment of sold products Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The percentage of downstream leased assets scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

The percentage of franchises Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

This percentage of investments Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

This percentage of Other upstream Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

This percentage of Other downstream Scope 3 emissions is not significant and represents much less than 1% of the emissions related to the use of sold products.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1 2020

End date

December 31 2020

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Scope 3: Upstream transportation and distribution (metric tons CO2e)

4500000

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)

20000

Scope 3: Employee commuting (metric tons CO2e)

40000

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

350000000

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

Upstream transportation and distribution: GHG emissions from purchased transportation and distribution services paid for by TotalEnergies carried out with vehicles not owned by TotalEnergies. Business travel counts only for Air Travel. The Use of sold product is the main Scope 3 category for TotalEnergies.

Past year 2

Start date

January 1 2019

End date

December 31 2019

Scope 3: Purchased goods and services (metric tons CO2e)

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Scope 3: Upstream transportation and distribution (metric tons CO2e)

Scope 3: Waste generated in operations (metric tons CO2e)

Scope 3: Business travel (metric tons CO2e)

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

410000000

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

The Use of sold product is the main Scope 3 category for TotalEnergies.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.17

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

35700000

Metric denominator

unit total revenue

Metric denominator: Unit total

205863000000

Scope 2 figure used

Market-based

% change from previous year

38

Direction of change

Decreased

Reason for change

Increase of revenue from 141 B\$ (2020) to 206 B\$ (2021). Decrease of emissions Scope 1+2 from 38 MTCO2e to 36 MTCO2e due to energy efficiency and process optimization projects (cf C4.3b - including improvement of liquefaction plant performance, notably in Qatar and the US), and COVID as well. Methane reduction projects contributed as well of Scope 1 emission reduction (-375,000 tCO2e in 2021): - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria.

Intensity figure

17

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

14000000

Metric denominator

barrel of oil equivalent (BOE)

Metric denominator: Unit total

824000000

Scope 2 figure used

Market-based

% change from previous year

5

Direction of change

Decreased

Reason for change

This intensity is calculated with the emissions scope 1 and 2 of the Upstream operated hydrocarbon activities divided by the 100% operated hydrocarbon production in barrel of oil equivalent. All new projects are assessed for their contribution to the average carbon intensity of their category in the Upstream portfolio. All approved projects must help reduce this intensity.

Intensity figure

37

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

16000000

Metric denominator

Other, please specify (barrel of product)

Metric denominator: Unit total

432000000

Scope 2 figure used

Market-based

% change from previous year

8

Direction of change

Decreased

Reason for change

This intensity is calculated with the Scope 1+2 emissions of the refineries operated by TotalEnergies (100% operated) divided by TotalEnergies' refinery throughput (100% operated). The intensity decreased between 2021 (37 kg CO2e /bbl) compared to 2020 (47 kg CO2e/bbl) is due to decrease of CO2 emission Scope 1+2.

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)

Other, please specify (hydrocarbon production in barrel of oil equivalent)

Metric tons CO2e from hydrocarbon category per unit specified

17

% change from previous year

5

Direction of change

Decreased

Reason for change

Decreased between 2020 and 2021, due to the implementation of GHG reduction projects for upstream activities, investments in low emission projects and COVID-19. For example, Methan reduction projects are part of GHG reduction projects (-375,000 tCO2e in 2021): - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria. All new projects are assessed for their contribution to the average carbon intensity of their category in the Upstream portfolio. All approved projects must help reduce this intensity. This intensity is calculated with the emissions scope 1 upstream operated hydrocarbon activities divided by the operated hydrocarbon production. The objective of the Company is to maintain this intensity below 20 kg CO2e/boe.

Comment

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division

Upstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division

0.1

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0.13

Comment

The intensities of methane emissions are: - below 0.10% with commercial gas produced in the denominator - 0.13% with Oil and Gas production in the denominator. The Company's objectives is to maintain its methane intensity for oil and gas facilities below 0.2% and for gas facilities below 0.10%.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	31775000	IPCC Third Assessment Report (TAR - 100 year)
CH4	1225000	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	300000	IPCC Fourth Assessment Report (AR4 - 100 year)
Other, please specify	0	IPCC Fourth Assessment Report (AR4 - 100 year)

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category

Flaring

Value chain

Upstream

Midstream
Downstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

4100000

Gross Scope 1 methane emissions (metric tons CH4)

14000

Total gross Scope 1 emissions (metric tons CO2e)

4450000

Comment

Emissions category

Combustion (excluding flaring)

Value chain

Upstream
Midstream
Downstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

21750000

Gross Scope 1 methane emissions (metric tons CH4)

5000

Total gross Scope 1 emissions (metric tons CO2e)

21875000

Comment

Emissions category

Process (feedstock) emissions

Value chain

Upstream
Midstream
Downstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

5500000

Gross Scope 1 methane emissions (metric tons CH4)

19000

Total gross Scope 1 emissions (metric tons CO2e)

5975000

Comment

Emissions category

Venting

Value chain

Upstream
Midstream
Downstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

325000

Gross Scope 1 methane emissions (metric tons CH4)

7000

Total gross Scope 1 emissions (metric tons CO2e)

500000

Comment

Emissions category

Fugitives

Value chain

Upstream

Midstream
Downstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

400000

Gross Scope 1 methane emissions (metric tons CH4)

4000

Total gross Scope 1 emissions (metric tons CO2e)

500000

Comment

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Other, please specify (Europe: E.U. 27 + Norway + UK + Switzerland)	18700000
Other, please specify (Eurasia (including Russia)/Oceania)	1000000
Africa	8600000
Americas	5000000

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Upstream Oil & Gas Operations	14100000
Integrated Gas, Renewables & Power, excluding upstream gas operations	5100000
Refining & Chemicals	14000000
Marketing & Services	100000

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	14100000	<Not Applicable>	Upstream Oil & Gas Operations
Oil and gas production activities (midstream)	5100000	<Not Applicable>	Integrated Gas, Renewables & Power, excluding upstream gas operations
Oil and gas production activities (downstream)	14100000	<Not Applicable>	Refining & Chemicals - Marketing & Services
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Americas	964000	956000
Africa	85000	74000
Other, please specify (Eurasia (including Russia)/Oceania)	125000	130000
Other, please specify (Europe: E.U. 27 + Norway + UK + Switzerland)	900000	1240000

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Upstream	119000	115000
Gas, Renewables & Power	35000	34000
Refining & Chemicals	1829000	2170000
Marketing & Services	89000	79000
Holding	2000	2000

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	121000	117000	Hydrocarbon Upstream activities + Holding
Oil and gas production activities (midstream)	35000	34000	Integrated Gas Renewables and Power
Oil and gas production activities (downstream)	1918000	2249000	Refining & Chemicals, Marketing and Services
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	No major change in renewable energy consumption impacted scope 2 emission between 2020 and 2021.
Other emissions reduction activities	2300000	Decreased	6	TotalEnergies' Scope 1+2 greenhouse gas emissions (operated scope) moved from 38 MtCO2e in 2020 to 35,7 MtCO2-eq in 2021, therefore a decrease of 6% (i.e. 2,3 MtCO2e; 6% = (38-35,7)/38*100). The decrease in emissions is due to energy efficiency initiatives (cf C4.3b) and the impact of the Covid-19, as well as methane reduction initiatives (cf C-OG4.6) : The CH4 reduction is approximately 15 kt (i.e. decrease of 375,000 tCO2e) from 64 kt to 49 kt in 2021 (23% = 15/64x100). Methane emissions are primarily attributable to venting (more than half the total) and flaring (a quarter of the total); the rest are fugitive emissions (i.e., leaks at valves, flanges and couplings) or the product of incomplete gas combustion at our facilities (turbines, furnaces, boilers, etc.). In order to reach zero methane emissions, stronger action will be taken on each of these emission sources: - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria.
Divestment	0	No change	0	No significant divestment in 2021
Acquisitions	0	No change	0	No significant impact in 2021
Mergers	0	No change	0	No significant mergers in 2021.
Change in output	0	No change	0	No significant change in 2021.
Change in methodology	0	No change	0	No modification of the reporting methodology in 2021
Change in boundary	0	No change	0	No modification of the reporting boundaries in 2021
Change in physical operating conditions	0	No change	0	Although all our emissions are reported in our H@rpe system, we are not entering into that kind of details in the present report.
Unidentified	0	No change	0	
Other	375000	Decreased	23	Methane emissions are primarily attributable to venting (more than half the total) and flaring (a quarter of the total); the rest are fugitive emissions (i.e., leaks at valves, flanges and couplings) or the product of incomplete gas combustion at our facilities (turbines, furnaces, boilers, etc.). In order to reach zero methane emissions, stronger action will be taken on each of these emission sources: - reductions in venting: projects to reroute vents to the gas export system or the flare and to reduce instrument gas on producing assets. In 2021, the decline from the year before linked to reductions in venting came to 6 kt per year (projects in Gabon and the U.K.). - reductions in flaring: In 2021, the decrease in flaring from 2020 reduced emissions by 1.8 kt per year. - leak reduction: annual campaigns to identify and repair leaks at all operated sites will be deployed starting in 2022. In 2021, emissions declined by 4 kt as a result of leak reduction efforts, including a significant upgrade to the OML58 facility in Nigeria. The CH4 reduction is approximately 15 kt (23% = 15/64x100), from 64 kt to 49 kt in 2021.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	125000000	125000000
Consumption of purchased or acquired electricity	<Not Applicable>	25000	6700000	6725000
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	3300000	3300000
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	1000	<Not Applicable>	1000
Total energy consumption	<Not Applicable>	26000	135000000	135026000

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

815000

MWh fuel consumed for self-generation of electricity

803000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

oil + fuel

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

113400000

MWh fuel consumed for self-generation of electricity

71928000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

natural gas

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

10871000

MWh fuel consumed for self-generation of electricity

6994000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

solid Fuels and others

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

125000000

MWh fuel consumed for self-generation of electricity

79725000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	21200000	1747000	6800000	1000
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Nuclear

Country/area of low-carbon energy consumption

Netherlands

Tracking instrument used

GO

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

362500

Country/area of origin (generation) of the low-carbon energy or energy attribute

Netherlands

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

1973

Comment

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Other, please specify (world-wide)

Consumption of electricity (MWh)

6726000

Consumption of heat, steam, and cooling (MWh)

3300000

Total non-fuel energy consumption (MWh) [Auto-calculated]

10026000

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

61

Metric numerator

Percentage of recycled or valorized waste

Metric denominator (intensity metric only)

total waste

% change from previous year

3

Direction of change

Increased

Please explain

The increase of in the valorization rate in 2021 is in line with company's new target to reuse more than 70% of the waste produced by sites operated by the Company's subsidiaries by 2030.

Description

Other, please specify (SO2 emissions)

Metric value

16

Metric numerator

Kt

Metric denominator (intensity metric only)

N/A

% change from previous year

53

Direction of change

Decreased

Please explain

In 2010, SO2 emissions totaled 99 kt, and the target for 2020 is to remain below 49.5 kt, a level reached in 2017. The reduction in emissions in 2020 is mainly due to a decrease in activity at refining units relating to shutdowns and to the COVID-19 pandemic.

Description

Other, please specify (NOx emissions)

Metric value

59

Metric numerator

Kt

Metric denominator (intensity metric only)

N/A

% change from previous year

8

Direction of change

Decreased

Please explain

NOx emissions mainly concern hydrocarbon exploration and production activities and are primarily located offshore and far away from the coast. Their impact on air quality is therefore considered to be minor. The decrease in 2021 is mainly due to a decrease in activity at refining units relating to shutdowns and to the COVID-19 pandemic.

Description

Other, please specify (HC content of water discharges, offshore)

Metric value

13.7

Metric numerator

mg/l

Metric denominator (intensity metric only)

N/A

% change from previous year

7

Direction of change

Increased

Please explain

The Company's target is to maintain hydrocarbon content of water discharges below 30 mg/l for offshore sites. The hydrocarbon content is well below 30 mg/l, and 100% of sites have met the target.

Description

Other, please specify (HC content of water discharges, onshore)

Metric value

2.6

Metric numerator

mg/l

Metric denominator (intensity metric only)

N/A

% change from previous year

37

Direction of change

Increased

Please explain

The Company's target is to maintain hydrocarbon content of water discharges below 15 mg/l for onshore sites. The hydrocarbon content is well below 15 mg/l, and 100% of sites have met the target.

C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	473	Excluding Bitumen.
Natural gas liquids, million barrels	41	
Oil sands, million barrels (includes bitumen and synthetic crude)	33	
Natural gas, billion cubic feet	2629	Equity share domain according to SEC

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

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. 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.

The average duration of the Company's proved and probable oil and gas reserves is 18 years.

2P and 3P reserves are not disclosed as it is confidential information. As of December 31, 2021, 1P reserves are 12,1 Mboe for hydrocarbons, 5,843 Mboe for liquids and 33,450 BCF for Gas.

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	0	0	0	2P and 3P reserves are not disclosed as it is confidential information.

C-OG9.2d

(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/ natural gas liquids	0	0	0	2P and 3P reserves are not disclosed as it is confidential information.
Natural gas	0	0	0	2P and 3P reserves are not disclosed as it is confidential information.
Oil sands (includes bitumen and synthetic crude)	0	0	0	2P and 3P reserves are not disclosed as it is confidential information.

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Development type

Other, please specify (NA)

In-year net production (%)

0

Net proved reserves (1P) (%)

0

Net proved + probable reserves (2P) (%)

0

Net proved + probable + possible reserves (3P) (%)

0

Net total resource base (%)

0

Comment

2P and 3P reserves are not disclosed as it is confidential information.

C-OG9.3a

(C-OG9.3a) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per day.

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	1793

C-OG9.3b

(C-OG9.3b) Disclose feedstocks processed in the reporting year in million barrels per year.

	Throughput (Million barrels)	Comment
Oil	415	Includes equity share of refineries in which the Company holds a direct or indirect interest.
Other feedstocks	17	Includes equity share of refineries in which the Company holds a direct or indirect interest.
Total	432	Includes equity share of refineries in which the Company holds a direct or indirect interest.

C-OG9.3c

(C-OG9.3c) Are you able to break down your refinery products and net production?

Yes

C-OG9.3d

(C-OG9.3d) Disclose your refinery products and net production in the reporting year in million barrels per year.

Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Gasolines	83
Other, please specify (aviation fuels)	24
Other, please specify (Diesel and heating oils)	191
Other, please specify (Heavy fuels)	16
Other, please specify (Other products)	100

C-OG9.3e

(C-OG9.3e) Please disclose your chemicals production in the reporting year in thousand metric tons.

Product	Production, Thousand metric tons	Capacity, Thousand metric tons
Other, please specify (Monomers)	5775	7689
Other, please specify (Polymers)	4938	6648

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	With an R&D workforce of more than 4,000 employees, the Company invested 849 M\$ in R&D in 2021 (versus 895 M\$ in 2020 and 968 M\$ in 2019). Including developments in digital technology and industrial projects for CO2 capture and storage, and including investments made by Total Carbon Neutrality Ventures (TotalEnergies' venture capital fund dedicated entirely to carbon neutrality activities, with cumulative investments expected to reach 400 M\$ by 2023), the Company's investment to prepare for the future amounted to 1.1 B\$. TotalEnergies carries out its R&D projects with an open innovation approach, drawing on its talent pool, research infrastructure, pilot sites and R&D centers worldwide, as well as start-ups and top-ranked academic partners. TotalEnergies operates 18 R&D centers across the globe and has signed about 1,000 agreements with its partners. In addition, the Company implements an active intellectual property policy to protect its innovations, maximize their use and differentiate its technology. In 2021, the Company filed more than 200 patent applications.

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Other, please specify (Low carbon technologies)	Pilot demonstration	41-60%		To achieve the Group's ambition to become the responsible energy major, Total R&D engages its employees in programs in five focus areas, that aim to address both the specific challenges in these segments and the Company's transverse issues. - The "Power" R&D line covers renewable energies, their hybridization and their distributed operation, for example by supplying the network from the batteries of electric vehicles. The challenge is to reduce the production costs of low-carbon energy, decarbonize assets and offer new processes and services. - the "CO2 & Sustainability" R&D line develops innovative and competitive technologies by focusing on increasingly sustainable solutions. This research addresses the capture and the use of CO2, for sustainable synthetic fuels and the storage of CO2, as well as the development of low environmental footprint technologies for the entire low-carbon liquefied natural gas chain, biogas and hydrogen sector. Work undertaken on quantifying greenhouse gas emissions, water and soil management is also contributing to the development of low carbon technologies. - the "Upstream" R&D line aims to improve the operational efficiency of exploration and production activities, both in terms of reducing greenhouse gas emissions and cutting costs to ensure a low breakeven point and a smaller carbon footprint. - the "Downstream Processes & Polymers" R&D line supervises and operates research on polymer recycling, the development of new generation biofuels and process electrification. - the "Fuels & Lubricants" R&D line is supporting the transformation of the world of transport and new forms of mobility, developing products to increase the performance of electrical systems and gas engines and to reduce the environmental footprint of existing solutions. Today, more than 50% of its R&D focuses on new energies (renewables, biomass, batteries, etc.) and to reducing its environmental footprint (methane, CCUS, water, biodiversity, etc.), compared to less than 30% five years ago. This move towards new energies points to the Company's future. In 2022, 57% of R&D budget is dedicated to new energies.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.

23

pre-dividend organic cash breakeven (post dividend not published)

C-OG9.8

(C-OG9.8) Is your organization involved in the sequestration of CO2?

Yes

C-OG9.8a

(C-OG9.8a) Provide, in metric tons CO2, gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis).

	CO2 transferred – reporting year (metric tons CO2)
CO2 transferred in	0
CO2 transferred out	0

C-OG9.8b

(C-OG9.8b) Provide gross masses of CO2 injected and stored for the purposes of CCS during the reporting year according to the injection and storage pathway.

Injection and storage pathway	Injected CO2 (metric tons CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tons CO2)
CO2 used for enhanced oil recovery (EOR) or enhanced gas recovery (EGR)	45000	30	2017	51000
CO2 injected into a geological formation or saline formation for long-term storage	0	100	2009	2750000

C-OG9.8c

(C-OG9.8c) Provide clarification on any other relevant information pertaining to your activities related to transfer and sequestration of CO2.

The numbers provided are in Company share. They are based on estimates.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

y
DEU_21_VA.pdf

Page/ section reference

Chapter 5; p360 - p363 and p301 of the document

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

y
DEU_21_VA.pdf

Page/ section reference

Chapter 5; p360 - p363 and p301 - p302 of the document

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

y
DEU_21_VA.pdf

Page/section reference

Chapter 5; p360 - p363 and p302 of the document

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf
C5. Emissions performance	Year on year change in emissions (Scope 1 and 2)	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf
C8. Energy	Other, please specify (energy efficiency)	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf
C9. Additional metrics	Other, please specify (waste, water)	Article L. 225-102-1 of the French Commercial Code	TotalEnergies' 2021 Universal Registration document chapter 5. The external auditor EY verifies the social and environmental information. French companies have to report as per Article L. 225-102-1 of the French Commercial Code and disclose information on the Company and the entities included in the consolidation scope, in accordance with Article L. 233-16 of the French Commercial Code. DEU_21_VA.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

48

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2021

Period end date

December 31 2021

Allowances allocated

16000000

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

33300000

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Facilities owned and operated by TotalEnergies (mainly in the Refining & Chemicals business segment). The number of allowance purchases is confidential information and is not disclosed. Hence, "Allocated + purchased" has been put under "allocated allowances" section. Please note that "Verified Scope 1" is the gross operated scope 1 emission of the whole company.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

TotalEnergies' overall strategy and plans include:

- reducing GHG emissions resulting from our own operations and optimize energy efficiency, and
- managing CO2 quotas.

In Europe specifically, TotalEnergies is fully organized to optimize compliance with the EU-ETS, through a close monitoring of positions, improvement projects and, when necessary, market transactions: a dedicated organization dealing with emissions trading and quota management was set up in 2005 consisting of operational desks in each business unit, and a centralized trading desk which intervenes in the open market on their behalf. Through this organization, positions are monitored on a regular basis with a view to ensure optimized compliance by the end of each calendar year. 57% of TotalEnergies scope 1 emissions in 2021 are from assets located in Europe and amounted to 19 Mt CO2 equivalent. As part from its Net Zero Ambition, TotalEnergies has set a neutrality ambition in Europe covering Scope 1, 2 and 3 emissions.

TotalEnergies participates in the market, and the value of CO2 is routinely taken into account in operational decisions of the business units participating in the scheme (such as power generation, energy project evaluation or refining optimization). Additionally, through the integration of a carbon cost in all new capital expenditure decisions since 2008 of all its new activities, TotalEnergies' Excom directly integrate the impact of its future greenhouse gas emissions.

TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher), with the assumption of a linear increase to \$100 per ton as from 2030. In 2022, the CO2 price of \$100/t to assess new projects is now implemented from 2023 onward. TotalEnergies anticipates participating in trading schemes other than the EU-ETS in the coming years (in China, USA, Canada, Kazakhstan, Mexico), depending on emerging regulations.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit origination

Project type

Agriculture

Project identification

In addition to taking action to prevent and reduce GHG emissions, it will be necessary to offset residual carbon emissions for TotalEnergies to achieve net zero emissions together with society. For that reason, the Company is investing in natural carbon sinks, such as forests, regenerative agriculture and wetlands. The model for land management areas must be integrated and shared with the local population. Within this framework, operations may comprise a variety of techniques (conservation, afforestation-reforestation, agroforestry, agricultural transition, blue carbon, etc.) and appropriate types of contracts (purchase contract, sustainable financing mechanism, impact funds, financed project, etc.). The goal is to combine and balance the value of agricultural and forestry revenues with the value of co-benefits for the population, soil, biodiversity, and the water cycle and that of carbon credits. When this is done, the local standard of living improves and the causes of land degradation and deforestation, which are major sources of GHG emissions, recede. The Company works with experienced partners to manage the long-term approach required and the risks involved in these complex projects. Backed by an average annual budget of 100 M\$ between 2020 and 2030, TotalEnergies aims to build up a stock of 100 million credits and develop the annual capacity to produce at least 5 million credits a year as from 2030. Case study: Republic of the Congo In March 2021, TotalEnergies and Forêt Ressources Management signed a partnership agreement with the Republic of the Congo for a large-scale, inclusive agroforestry management project that will sequester more than 10 Mt of CO₂. It calls for integrated management with the project partners of more than 50,000 hectares over a 35-year period, and includes the planting of a 38,000 hectare forest, 2,000 hectares of agroforestry projects and preservation of gallery forests. The project aims to develop agricultural production and sustainable wood energy in cooperation with the local population.

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO₂e)

7000000

Number of credits (metric tonnes CO₂e): Risk adjusted volume

31000000

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Change internal behavior
Drive low-carbon investment
Stress test investments

GHG Scope

Scope 1

Application

TotalEnergies includes a minimum carbon price of \$40/ton in its investment criteria (or the current price in a given country, if higher), with the assumption of a linear increase to \$100 per ton as from 2030. Beyond 2030, an annual increase of 2% is applied. In 2022, the CO₂ price of 100 \$/t to assess new projects is now implemented from 2023 onward.

Actual price(s) used (Currency /metric ton)

100

Variance of price(s) used

2% per year beyond 2030

Type of internal carbon price

Shadow price

Impact & implication

Each significant investment project is evaluated in light of the objectives of the Paris Agreement, and on the basis of the following criteria: – Project cost is analyzed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at \$50/b and Henry Hub at \$2.5/ Mbtu) and with a carbon price of \$100/t in 2030 and beyond. In 2021, 8 significant Oil and gas upstream investments (sectoral context) were evaluated on these criteria. Greenfield projects: Mero 4 (Brazil) and Block 10 (Oman); Brownfield projects: Tommeliten Alpha (Norway) and Al Shaheen Phase 2 (Qatar); Acquisitions : Atapu (Brazil), Sepia (Brazil), Ratawi (Iraq), Waha (Libya) Profitability exceeds the internally defined threshold, in a scenario compatible with the Paris Agreement's objectives. Upstream gives precedence to value creation and cash generation over volume and puts a priority on developing low-cost (typically below \$20 per barrel for operating and investment costs) or low-breakeven (typically \$30 per barrel including tax) and low-emissions projects (typically less than 20 kg CO₂/b).

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

- Yes, our suppliers
- Yes, our customers/clients
- Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify (Update Company's Fundamental Principles of Purchasing to include a principle on climate.)

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

100

Rationale for the coverage of your engagement

The Company Fundamental Principles of Purchasing (FPP) is the basis for TotalEnergies' relations with its suppliers and are attached to all our procurement contracts. In February 2022, the Company updated the FPP to include a new principle on climate: "Principle 3: Act in favour of climate"

Impact of engagement, including measures of success

IMPACT OF ENGAGEMENT: Contractual commitment to act in favor of climate for TotalEnergies suppliers. It is binding on suppliers who want to work with TotalEnergies.
MEASURE OF SUCCESS: Target: 100% of suppliers

Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

1

% total procurement spend (direct and indirect)

50

% of supplier-related Scope 3 emissions as reported in C6.5

80

Rationale for the coverage of your engagement

The Company analyses 1.000 suppliers' maturity (Top 1000, i.e. 1% of suppliers of 80% of emissions (~Pareto)) on climate through self-assessment questionnaire including information on their 2030 GHG emissions reduction targets.

Impact of engagement, including measures of success

IMPACT OF ENGAGEMENT: Encourage reductions in suppliers Scope 1, thereby contributing to reducing TotalEnergies' Scope 3. MEASURE OF SUCCESS: Aim that by 2025 at least 90% of the Company's Top 400 suppliers have set targets for GHG emission reductions by 2030; Ensure that any new supplier qualified from 2022 and likely to join this Top 400 also have this objective.

Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

1

% total procurement spend (direct and indirect)

50

% of supplier-related Scope 3 emissions as reported in C6.5

80

Rationale for the coverage of your engagement

The Company launched the TotalEnergies Supply Chain Carbon Footprint Initiative in 2021, engaging the top 1,000 suppliers representing 80% of the GHG emissions related to the Company's goods and services supply chain. After receiving an explanatory letter, these suppliers were all invited to an introductory webinar presenting the Company's sustainable development approach and its expectations of suppliers. More than 500 suppliers participated. Mid-2022, TotalEnergies launched a sustainability platform to engage its 1.000 suppliers in a sustainability program with a specific focus on climate. This platform will allow to manage joint projects on climate, assess suppliers and follow their action plans.

Impact of engagement, including measures of success

IMPACT OF ENGAGEMENT: Help suppliers to achieve the above-mentioned objectives through the tools, trainings, material available in the platform, hence encouraging them to reduce their Scope 1 thereby contributing to reducing TotalEnergies Scope 3. MEASURE OF SUCCESS: Reach 1,000 suppliers that are engaged in the sustainability program with a specific focus on climate.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Collaboration & innovation	Other, please specify (Develop and propose low-carbon products to our customers)
----------------------------	--

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

TotalEnergies is actively striving to make net zero emissions an ambition it shares with its customers. The primary lever for effectively advancing the energy transition is to gradually change the forms of energy its customers use. The Company is pursuing a marketing strategy focused on the lowest-carbon products and scaling back its offerings for certain applications where competitive low-carbon alternatives are available. As of 2018, transportation generated approximately 17% of global GHG emissions and electric vehicles (EVs) accounted for 9% of total vehicle sales in 2021. TotalEnergies' strategy includes to establish operations in mobility by: - deployment of charging infrastructure: TotalEnergies is transforming and adapting its presence in cities by developing an e-mobility network in Europe and Asia. - production of high-performance batteries: Automotive Cells Company (ACC), a joint venture founded by TotalEnergies and Stellantis in 2020, is set to emerge as a global player in the development and manufacture of automotive batteries beginning in 2023. With Saft, TotalEnergies is giving the new company the benefit of its expertise in R&D. The batteries produced by ACC will power nearly one million EVs a year, or 10% of the European market. Mercedes-Benz TotalEnergies is actively striving to make net zero emissions an ambition it shares with its customers.

Impact of engagement, including measures of success

IMPACT OF ENGAGEMENT: Contribute to reduce the 17% GHG emissions of transportation industry worldwide, thereby contributing to reducing Contribute to reduce TotalEnergies Scope 3. MEASURE OF SUCCESS: - 150,000 charge points worldwide by 2025. - 300 service-stations on motorways and major roads and 600 urban service stations with high power chargers (HPC) by 2030 to support e-mobility travel in Europe. This works out to one HPC every 150 km, for optimal coverage on long-distance trips. - 120 GWh of electric battery production capacity by 2030 in Europe - 5 GWh of electric battery production capacity by 2023 in China

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

TotalEnergies has the ambition to achieve carbon neutrality (net zero emissions) by 2050 from its production to the use of the energy products sold to its customers (Scopes 1+2 +3), together with society, and is joining forces with multiple players in the value chain, through partnerships such as:

- the Coalition for the Energy of the Future, a group of 14 multinational firms since February 2021 that are pooling their expertise to accelerate the energy transition in transportation and logistics, through support for 9 concrete projects developed by 9 working groups.
- *Getting to Zero Coalition* to help contribute to the International Maritime Organization's goal of reducing emissions from shipping by at least 50% by 2050 - compared to 2008 levels. The Coalition is aiming, through its members, at getting commercially viable deep-sea zero-emission vessels powered by zero-emission fuels into operation by 2030. The Getting to Zero Coalition was launched in September 2019 as a partnership between the Global Maritime Forum, the Friends of Ocean Action and the World Economic Forum. It comprises over 120 public and private organisations and has been endorsed by governments of 14 countries, including France and the UK.
- *Clean Skies for Tomorrow*. With air travel predicted to double by 2035, the aviation sector could represent a significantly higher share of GHG emissions by 2050 compared to its 2-3% share today. The Clean Skies for Tomorrow Coalition provides a crucial mechanism for top executives and public leaders, across and beyond the aviation value-chain, to align on a transition to sustainable aviation fuels as part of a meaningful and proactive pathway for the industry to achieve carbon-neutral flying. This coalition was launched in 2019 by the World Economic Forum, along with Airbus, Boeing, Air Transport Action Company, Shell, Heathrow and Schiphol airports.
- *Engagements pour une Croissance Verte* with the French Ministry of Ecology and Inclusive Transition and the French Ministry of Transportation in France, As part of these commitments, five key players in French biojet fuel (Air France, Airbus, Safran, Suez and TotalEnergies) are currently conducting a study to define the optimal conditions for producing and marketing clean fuels for air transportation.
- Oil & Gas Climate Initiative (OGCI): Comprising 12 major national and international energy operators, this global industry partnership is committed to developing solutions for a sustainable, low-carbon future. In 2021, the OGCI's members, which collectively account for more than one third of the world's oil and gas production, embarked on a new strategy for reaching net zero Scope 1+2 emissions by 2050. In addition, OGCI Climate Investments, a fund launched in 2017 to invest 1 B\$ over 10 years, provides funding to tech start-ups connected with the energy transition.

The Company is also engaged in other international initiatives involving the private and public sectors:

- for stopping the routine flaring of gases associated with oil production, with the World Bank's "Zero Routine Flaring by 2030" initiative;
- for enhanced transparency, taking into account the recommendations of the G20 Financial Stability Board on climate, and of the Task Force on Climate-related Financial Disclosures (TCFD), or the investors' consortium Climate Action 100+;
- for the development of new energy start-ups, since 2017, within the Breakthrough Energy Coalition (BEC), a group of investors created by Bill Gates in 2015, and since 2016 within Breakthrough Energy Ventures, a 1 B\$ fund created in 2016 by the BEC;
- to reduce methane emissions, as a member of the United Nations Development Programme's Oil & Gas Methane Partnership (OGMP) since 2014.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Climate-related disclosure through a non-public platform

Description of this climate related requirement

Answer to an annual maturity evaluation : 1.000 suppliers

% suppliers by procurement spend that have to comply with this climate-related requirement

50

% suppliers by procurement spend in compliance with this climate-related requirement

22

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Climate-related requirement

Implementation of emissions reduction initiatives

Description of this climate related requirement

By 2025 the objective is that at least 90% of the Company's Top 400 suppliers will have set targets for GHG emission reductions by 2030, and that any new supplier qualified from 2022 and likely to join this Top 400 also has this objective.

% suppliers by procurement spend that have to comply with this climate-related requirement

40

% suppliers by procurement spend in compliance with this climate-related requirement

16

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

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. (Page 44 of Climate and Sustainability Progress Report 2022) Our ambition: net zero by 2050 on scopes 1, 2 and 3, together with society, in line with the objectives of the Paris Agreement.

Sustainability_Climate_2022_Progress_Report_EN_0.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Each material investment project is evaluated in relation to the Paris Agreement's objectives and on the basis of the following criteria: Project cost is analyzed in a hydrocarbon price scenario compatible with the Paris Agreement (Brent at \$50/b and Henry Hub at \$2.5/ Mbtu) and with a carbon price of \$100/t in 2030 and beyond, also considering a CO2 price of a minimum of \$40/t, with assumption of a linear increase to 100/t as from 2030. For 2022 projects, the CO2 price has been increased to \$100/t from 2023 onward. - For new oil and gas projects (greenfield and acquisitions), the intensity of Scope 1+2 greenhouse gas emissions is compared, depending on their nature, to the intensity of the average greenhouse gas emissions of upstream production assets or that of various downstream units (LNG plants, refineries). For additional investments in existing assets (brownfield projects), the investment will have to lower the Scope 1+2 emissions intensity of the asset in question. The goal is for each new investment to contribute to lowering the average intensity of the Company's Scope 1+2 greenhouse gas emissions in its category. - for projects involving other energies and technologies (biofuels, biogas, CCS, etc.), GHG emissions reductions are assessed based on their contribution to reducing the Company's emissions. In 2021, 12 significant investments were evaluated on these criteria: - Oil and gas projects: - Greenfield projects: Mero 4 (Brazil) and Block 10 (Oman); - Brownfield projects: Tommeliten Alpha (Norway) and Al Shaheen Phase 2 (Qatar); - Acquisitions : Atapu (Brazil), Sepia (Brazil), Ratawi (Iraq), Waha (Libya) - New energy projects: - BioBéarn project (France), - Del Rio biogas project (United States) - Carbon sink projects: - Batéké natural carbon sink (Republic of Congo), - Blue Mountain natural carbon sink (Peru).

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Climate-related targets

Specify the policy, law, or regulation on which your organization is engaging with policy makers

European Union 2030 objectives

Policy, law, or regulation geographic coverage

Regional

Country/region the policy, law, or regulation applies to

EU27

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

TotalEnergies supports the EU enhanced ambition on GHG emission reduction targets for 2030. TotalEnergies advocates for a technology-neutral and coherent set of European rules and will follow up on the various proposals due in 2021.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Climate-related targets

Specify the policy, law, or regulation on which your organization is engaging with policy makers

European Green Deal

Policy, law, or regulation geographic coverage

Regional

Country/region the policy, law, or regulation applies to

EU27

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

TotalEnergies supports the ambition of the European Union to become climate neutral by 2050 and has taken the commitment to reach Net Zero across all its production and energy products used by its customers in Europe by 2050 or sooner (scope 1+2+3), together with society. TotalEnergies is in favor of a green recovery package and is

advocating for the introduction of a Carbon Border Adjustment Mechanism.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Emissions trading schemes

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Cap and Trade

Policy, law, or regulation geographic coverage

Global

Country/region the policy, law, or regulation applies to

<Not Applicable>

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

TotalEnergies supports market-driven carbon emission reduction systems and international agreement for the limitation of GHG emissions through carbon market implementation and industry protection.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

minor

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Climate-related targets

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Flaring reduction

Policy, law, or regulation geographic coverage

Global

Country/region the policy, law, or regulation applies to

<Not Applicable>

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

In 2014, TotalEnergies joined the initiative launched by the World Bank and made a commitment to eliminate routine flaring from its operations by 2030. TotalEnergies advocates the emergence of local regulations in producing countries in order to stimulate infrastructures and gas to power projects that would help to reduce flaring.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Methane emissions

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Methane regulation

Policy, law, or regulation geographic coverage

Global

Country/region the policy, law, or regulation applies to

<Not Applicable>

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

TotalEnergies supports policies to reduce methane emissions from natural gas production and consumption. In November 2019, TotalEnergies wrote to the US agency in charge of the environment (US-EPA), through a public consultation process, to oppose the projected lowering of regulatory requirements on methane emission control in the oil and gas industry. TotalEnergies advocates for methane policies and regulations that incentive early actions, drive performance improvement, facilitates proper enforcement and support flexibility and innovation.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate

Carbon tax

Specify the policy, law, or regulation on which your organization is engaging with policy makers

carbon tax / Paying for Carbon

Policy, law, or regulation geographic coverage

Global

Country/region the policy, law, or regulation applies to

<Not Applicable>

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

In 2014, TotalEnergies joined the call of the United Nations Global Compact, which encourages companies to consider a CO2 price internally and publicly support the importance of such a price via regulation mechanisms suited to the local contexts. TotalEnergies is founding member of the Climate Leadership Council advocating for a carbon dividend mechanism. TotalEnergies advocates the introduction of carbon pricing frameworks in all countries.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

FuelsEurope

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Fuels Europe recognizes that climate change is a global challenge, which requires global actions. TotalEnergies participated in the Working Group on Transportation issues that published the Vision 2050 report (how to best mitigate and reduce GHG emissions of the refining sector and its products).

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

International Association of Oil and Gas Producers (IOGP)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The International Oil & Gas Producers association supports the international community's commitment to address the global challenge of climate change. IOGP also believes that the Oil and Gas industry is very much a part of the solution to this challenge and that it can be addressed while meeting society's future energy needs. TotalEnergies is an active member of the Energy & Climate working Company of IOGP.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify (IPIECA)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

In support to the UNFCCC's work, IPIECA has launched, in November 2016, a report called "Exploring low-emissions pathways: Advancing the Paris Puzzle". This publication builds on IPIECA's 2015 Paris Puzzle, providing perspective on the common elements and enablers of pathways to meet a low-emissions future. TotalEnergies was co-chair of the Climate Change working Company of IPIECA, who produced these two papers.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify (OGCI)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Launched in early 2014, the Oil and Gas Climate Initiative currently has 12 members: BP, Chevron, CNPC, Eni, Equinor, ExxonMobil, Occidental Petroleum, Petrobras, Repsol, Saudi Aramco, Shell and TotalEnergies. The vision of the OGCI is to become a more recognized and ambitious provider of practical solutions to climate change mitigation. The values of the OGCI are based upon a bottom-up, voluntary, industry-led initiative that encourages a wide range of actors in the oil and gas industry to work in a collaborative manner to deliver a tangible, credible, transparent and integrated contribution to climate change solutions. TotalEnergies CEO is an active member of the OGCI CEOs Steering Committee. Until 2021, TotalEnergies was the chair of the Executive Committee of OGCI. Several people of TotalEnergies' corporate Strategy & Climate team are very active in this association.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

American Chemistry Council

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The American Chemistry Council has adopted a clear set of Climate Policy Principles. In particular, they express support to climate science, the goals of the Paris Agreement, carbon pricing, the development of renewable energies and CCUS. The head of TotalEnergies Americas' Refining and Petrochemicals Business Unit is a member of the board of ACC.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

American Petroleum Institute

Is your organization's position on climate change consistent with theirs?

Inconsistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly oppose their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The American Petroleum Institute is the main trade association for Oil and Gas in the USA. It considers climate change an important issue and is engaging to address this complex global challenge. However, API does not have an official position on Carbon pricing but has often been critical of putting a price on carbon. Also, API has supported the rollback of methane emissions regulations which TotalEnergies has opposed. Those divergences, which have been discussed within the association, remained in 2020, and in January 15, 2021, TotalEnergies announced its decision not to renew its membership. TotalEnergies was the member of the API Climate committee and had a representative at API's board created in 2020. TotalEnergies did not renew its membership for 2021.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify (EpE)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The French "Entreprises pour l'Environnement" association has published in May 2019 the "ZEN 2050" report about the feasibility of reaching net zero emissions in 2050 in France. TotalEnergies' CEO is the chairman of the board of EpE in 2022.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

European Roundtable of Industrialists (ERT)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The European Roundtable of Industrialists has an Energy Transition & Climate Change Working Company working on issues such as European energy security strategy and European policy framework for energy and climate change, including carbon pricing. TotalEnergies' CEO is an active member of the ERT.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify (WBCSD)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The World Business Council for Sustainable Development has a Climate Policy Working Company focusing on issues such as Paris Agreement implementation, carbon pricing and Science-Based Targets (SBTs). TotalEnergies has been actively involved on the subject of the TCFD with the WBCSD: TotalEnergies' CEO signed in 2017 the "CEO guide to climate-related financial disclosure" and in 2017 and 2018 TotalEnergies participated in the TCFD Oil & Gas Preparer Forum and the subsequent publication of the "Climate-related financial disclosure by oil and gas companies" report. TotalEnergies also participates to the working Company on Natural Climate Solutions.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Canadian Association of Petroleum Producers

Is your organization's position on climate change consistent with theirs?

Inconsistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly oppose their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The Canadian Association of Petroleum Producers is in principle supportive of climate-related subjects such as the elimination of flaring, the reduction of methane

emissions and the development of CCS. However, their position lacks clarity on the subject of carbon pricing. Additionally, in their March 2020 letter to the Canadian government in the context of the COVID-19 crisis, CAPP took some public positions that are not aligned with our climate positions. In 2020, TotalEnergies therefore decided not to renew its membership for 2021. TotalEnergies E&P Canada CEO had numerous exchanges with the association in 2019-2020, as a member of the Board of Governors.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

American Fuel & Petrochemical Manufacturers

Is your organization's position on climate change consistent with theirs?

Inconsistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly oppose their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The American Fuel & Petrochemical Manufacturers (AFPM) were misaligned or partially aligned with TotalEnergies on the following criteria that are the six principles from its Advocacy Directive: Scientific position, the Paris Agreement, Carbon pricing, the development of renewable energies, the role of natural gas, carbon offsetting. TotalEnergies was member of AFPM until 2019. It did not renew its membership in 2020 onward.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

0

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization

International Governmental Organization (IGO)

State the organization to which you provided funding

TotalEnergies also supports the following organizations and initiatives: o The World Bank's Zero Routine Flaring by 2030 initiative. o The Climate and Clean Air Coalition's Oil & Gas Methane Partnership. o The U.N. Global Compact's Caring for Climate initiative: o The World Bank's Carbon Pricing Leadership Coalition. o The Climate Leadership Council, which promotes a carbon dividends framework as a pragmatic solution to tackle climate change. etc.

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)

0.01

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

TotalEnergies is a member of 929 industry associations and has published a list of its affiliations since 2016. The Company typically cooperates with these organizations on technical matters, but some take public stances on other issues, such as climate. The Company ensures that these organizations hold positions aligned with its own, and regularly reviews each organization's stance on the climate. Since 2019, TotalEnergies has conducted an annual assessment of the climate-related public positions of the main professional associations of which it is a member. The Company examines whether they are aligned with its own, based on the six principles from its Advocacy Directive: - Scientific position - The Paris Agreement - Carbon pricing - The development of renewable energies - The role of natural gas - Carbon offsetting The Company is also engaged in other international initiatives involving the private and public sectors: - for stopping the routine flaring of gases associated with oil production, with the World Bank's "Zero Routine Flaring by 2030" initiative. - for enhanced transparency, taking into account the recommendations of the G20 Financial Stability Board on climate, and of the Task Force on Climate-related Financial Disclosures (TCFD), or the investors' consortium Climate Action 100+. - for the development of new energy start-ups, since 2017, within the Breakthrough Energy Coalition (BEC), a group of investors created by Bill Gates in 2015, and since 2016 within Breakthrough Energy Ventures, a 1 B\$ fund created in 2016 by the BEC. The amount of fundings is not disclosed.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

1
DEU_21_VA.pdf

Page/Section reference

section 5.4, page 286 to 308.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other, please specify (carbon pricing)

Comment

DEU_2021_VA.pdf

Publication

In other regulatory filings

Status

Complete

Attach the document

1
Form_20-F_2021.pdf

Page/Section reference

section 5.4, page 408 to 430.

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other, please specify (carbon pricing)

Comment

Form_20-F_2021.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

1
Sustainability_Climate_2022_Progress_Report_EN_0.pdf

Page/Section reference

full report

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other, please specify (carbon pricing)

Comment

sustainability_Climate_2022_Progress_Report_EN_0.pdf

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	The Chairman of the Board and CEO of TotalEnergies is responsible for biodiversity inclusion in the strategy on the long-term. The chairman of the board is the highest level of the organization. The Chairman ensures that the board is informed of the market developments, the competitive environment, and the main challenges, including biodiversity issues. The Chairman also chairs the Company Performance Committee and has a direct oversight of the "One R&D program", in which the biodiversity management is included, with actions to improve biodiversity performance. In 2020 the Board set new objectives on Biodiversity for the 2020-2025 period (as part of the Company's COP 15 contributions) and further to those set in 2018 (for 2018-2020 period). A new environmental roadmap for 2021-2030 is now finalized. Biodiversity is one of the 4 pillars of this roadmap. Every year, the Board of Directors reviews the main issues related to climate change and environmental issues (including biodiversity issues) in the strategic outlook review of the Company's business segments, which are presented by the respective company branch Directors. Also, the Audit Committee, a subset of the board, does more specific work on the climatic and environmental reporting processes in the review of the performance indicators published by TotalEnergies in its annual report and audited by an independent third-party organization. The Board yearly approves the release of biodiversity-related information. Significant CAPEX decisions related to biodiversity are for instance part of board's discussion (biodiversity related major investments at Exploration & Production sector, R&D programs etc.). The integration of biodiversity related issues also relies on the CORISK approach, whereby any significant modification to TotalEnergies' operational perimeter is presented and analysed by the Company Risk Management Committee, including all HSE risks. This analysis is then presented to the Executive Committee (ExCom). ExCom members meet, as a minimum, on a quarterly basis at HSE Business Reviews to discuss about HSE issues (including biodiversity). Further these meetings, feedback is provided through ExCom to implement the decisions taken into the branches. In conclusion, the governance related to biodiversity issues is shared throughout the TotalEnergies management scheme (from Board to sites).	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Other, please specify (Act4Nature International Company specific commitments (http://www.act4nature.com/wp-content/uploads/2020/11/TOTAL-VA-dissensus-5-11-1.pdf);)	CBD – Global Biodiversity Framework SDG Other, please specify (CBD's Action Agenda COP 15; Act4Nature International ; UNEP-WCMC PROTEUS initiative ; Business for Nature Call to Action ; 2012 Adoption of the Declaration on the Rights of Indigenous Peoples ; TNFD Forum membership)

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	Yes, we assess impacts on biodiversity in both our upstream and downstream value chain	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Education & awareness Law & policy

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify (# of yearly Biodiversity Surveys; # of Biodiversity Actions Plan yearly status; # decommissioned sites identified for biodiversity restoration; # of biodiversity initiatives carried out by employees in countries as part of the Action program; others;)

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	2021 Universal Registration Document DEU_21_VA.pdf
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	Sustainability & Climate 2022 Progress Report Sustainability_Climate_2022_Progress_Report_EN_0.pdf
Other, please specify (2020 Biodiversity Ambition)	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	Biodiversity Ambition https://totalenergies.com/news/biodiversity-total-strengthens-its-ambition-and-commitments-in-biodiversity
Other, please specify (Act4Nature International web site)	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	TotalEnergies Act4nature commitments (2018-2020) reporting (SMART format); the data are included in an independent audit process

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

xx

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Patrick Pouyanné - CEO - Board chair	Board chair

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
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SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

The European Climate Pact Submission

Please indicate your consent for CDP to showcase your disclosed environmental actions on the European Climate Pact website as pledges to the Pact.

No, we do not wish to pledge under the European Climate Pact at this stage

Please confirm below

I have read and accept the applicable Terms