

## W0. Introduction

### W0.1

#### (W0.1) Give a general description of 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 101,000+ employees from 160 nationalities 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, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people. Safety, Respect for Each Other, Pioneer Spirit, Stand Together and Performance-Minded are what drive us.

Our 2021 sales amount revenue is €156.5 billion and our net income is €16.75 billion. Our net investment equals to €11.7 billion including 25% in Renewables and Electricity.

In 2021, Total became TotalEnergies: A new name for a new ambition to become a major player in the energy transition. Our climate ambition is: NET ZERO EMISSIONS 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 Company is developing a wide range of energies in an integrated approach (from production to retailing) to decarbonize its energy offering and generate a competitive advantage that will create long-term value for its shareholders and secure its future.

Total's activities are divided into 4 main business segments:

#### UPSTREAM ACTIVITIES

- **Integrated Gas, Renewables & Power (IGRP):** TotalEnergies' strategy aims to transform itself into a multi-energy company by profitably growing its portfolio of liquefied natural gas and its production of electricity, the two fastest growing energy markets, as well as in decarbonized gas (biogas and hydrogen). The iGRP segment is driving TotalEnergies' ambition in the activities of the integrated gas and electricity chains. The execution of a profitable growth strategy in these promising businesses is helping to achieve TotalEnergies' ambition to reach carbon neutrality (net zero emissions) by 2050 together with society.
- **Oil & Gas Exploration & Production activities (EP):** encompasses the oil and natural gas exploration and production activities (excluding LNG) in about 50 countries. Since September 1, 2021, the Carbon Capture and Storage and Nature-Based Solutions activities have been affiliated to the EP segment.

#### DOWNSTREAM ACTIVITIES

- **Refining & Chemicals segment (RC):** include refining, base petrochemicals (olefins and aromatics); polymer derivatives (polyethylene, polypropylene, polystyrene and hydrocarbon resins), including biopolymers and recycled polymers obtained from chemical or mechanical recycling, and biofuels from the transformation of biomass and, since January 1, 2022, specialty fluids, which were previously part of the Marketing & Services segment. The Refining & Chemicals activities also include the processing of elastomers by Hutchinson.
- **Marketing & Services (MS):** is proactively supporting its customers in their transition to more sustainable energy and mobility. Includes the worldwide supply and marketing of oil products and services, low-carbon fuels and new energies for mobility.

TotalEnergies' commitment to the Sustainable Development Goals has four dimensions addressed by this report: Climate and sustainable energy, People's well-being, Care for the environment and Creating shared value. TotalEnergies creates and drives positive change for communities in its host territories and, more broadly, for its employees, suppliers, customers, partners, states and civil society.

Respect for the environment is key to the way TotalEnergies conducts its operations. Our ambition is to place environmental performance at the heart of our projects and operations and pay particular attention to the use of the planet's natural resources. TotalEnergies takes care to manage the environmental impacts of all its operations according to the Mitigation Hierarchy (Avoid, Reduce, Compensate). The first step is to avoid any impacts wherever possible. If an impact cannot be avoided, the Company uses best available technology to reduce it and, as a last resort, compensates any residual impacts. In light of the environmental challenges facing the planet, the Company has set three priorities to take care of the planet's resources: preserving biodiversity, protecting water resources and practicing circular resource management. **With a focus on continuous improvement, the Company decided in 2022 to renew the environmental objectives set for the previous decade, which had already been met. These objectives have been strengthened and expanded. New targets for water were set to Reduce the freshwater withdrawal of the sites located in water stress area and limit the hydrocarbon content of continuous aqueous discharges. Moreover, TotalEnergies joined the UN Global Compact's CEO Water Mandate.**

### W-OG0.1a

#### (W-OG0.1a) Which business divisions in the oil & gas sector apply to your organization?

Upstream  
Midstream/Downstream

### W0.2

#### (W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2021	December 31 2021

## W0.3

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**(W0.3) Select the countries/areas in which you operate.**

Angola  
Argentina  
Belgium  
Bolivia (Plurinational State of)  
Brazil  
Brunei Darussalam  
Canada  
China  
Congo  
Côte d'Ivoire  
Czechia  
Denmark  
France  
Gabon  
Germany  
India  
Israel  
Italy  
Kazakhstan  
Malta  
Mexico  
Morocco  
Mozambique  
Myanmar  
Netherlands  
Nigeria  
Norway  
Papua New Guinea  
Poland  
Portugal  
Qatar  
Romania  
Serbia  
South Africa  
Spain  
Sweden  
Tunisia  
Uganda  
United Arab Emirates  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Viet Nam

## W0.4

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**(W0.4) Select the currency used for all financial information disclosed throughout your response.**

EUR

## W0.5

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**(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.**

Companies, entities or groups over which operational control is exercised

## W0.6

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**(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?**

No

## W0.7

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**(W0.7) 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

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Not very important	As mentioned by CDP, Freshwater corresponds to surface Freshwater, Groundwater-renewable and Third-party sources. Freshwater availability and quality are vital for TotalEnergies' direct operations. In 2021, Freshwater withdrawals were 114,446 Megaliters/year distributed as follows: RC 87%, IGRP 7%, EP 5%, and MS 1%. UPSTREAM 1. O&G Exploration & Production (EP): Oil and natural gas exploration and production activities (excluding LNG) used for Pressure Maintenance purposes, but also for cooling and desalting the oil. 2. Integrated Gas, Renewables & Power (IGRP): Fresh water is needed for the Combined Cycle Gas Turbine (CCGT) for cooling purposes. DOWNSTREAM 3. Refining & Chemicals (RC): Refining, base petrochemicals, polymer derivatives, including biopolymers and recycled polymers, biofuels and specialty fluids, and also elastomers. Water is mainly necessary for getting vapor to crack molecules and for cooling the products. 4. Marketing & Services (MS): Supply and marketing of oil products and services, low-carbon fuels and new energies for mobility. Water is mainly needed for Wash stations. To preserve freshwater resources into water stressed areas, TotalEnergies committed to reduce its freshwater withdrawals to 20% in 2030 compared to 2021 for sites located into high or extremely high scarce areas. Indirect Freshwater use is not very important for TotalEnergies' supply chain as their activities do not include water intensive products. Regarding agricultural supply for biofuels, they are coming from areas without any water scarcity issues. However, indirect water use's importance is expected to rise with the development of new environmental standards and TotalEnergies remains attentive to understand the dependence regarding future needs for freshwater of its direct operations and from its value chain.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	The availability of recycled, brackish and produced water is important for TotalEnergies as the extraction of hydrocarbons produces large volumes of water and open cooling demands large volumes of water. In 2021, recycled, brackish and/or produced Water withdrawals were 330,483 Mgl/year for RC 68% and EP 32%. The volumes of produced water and their discharge destination are accounted including the share that is immediately reinjected as part of the Enhanced Oil Recovery (EOR) process, and that is discharged to other water bodies. TotalEnergies' use of non-freshwater occurs in once-through cooling processes in RC. As to EP activities, brackish and saline water are mainly used for maintaining reservoir pressure in addition to produced water reinjection. It is therefore important for TotalEnergies to access enough recycled or brackish water to pursue its activities. EOR and RC activities will remain core to TotalEnergies' activities for the coming years and the availability of non-freshwater will remain very strategic to sustain all our activities. The company expects that, the recycled/brackish/produced water dependency will increase in the future to reduce the freshwater dependency. Smart, safe management of this produced water is both a business opportunity (treatment and recycling/reuse) and a regulatory necessity (compliance) to ensure a responsible approach towards local communities. We anticipate the deployment of new alternatives to bring solutions for the potential situation of water scarcity. Recycled/brackish water is not very important for our supply chain as their activities do not include water intensive products. In September 2021, TotalEnergies signed major multi-energy agreements in Iraq for the construction of a new gas network and treatment units, the construction of a large-scale seawater treatment unit and the construction of a 1 GW photovoltaic power plant.

W1.2

**(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?**

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	100% of activities use HARPE, the Company-wide environmental reporting system covers all the operating scope. Since 2010, HARPE, based on ENABLON technology, allows to collect up to 20 water quantity primary indicators (+aggregated ones) and 83 quality indicators. Based on international norms like ISO14001, it constantly evolves in accordance with regulations and frameworks. HARPE data collection is planned annually at Company level and on a monthly/quarterly basis at Business Units. 100% of our sites with withdrawing of +500,000 m3 per year (minimum threshold), report through flowmeters. To be noticed that some of MS and IGRP sites report to HARPE, even if lower volume than the minimum threshold. Future withdrawal volumes are not expected to change significantly in the next 5 years due to an expected stable business energy product sector into EP and RC Nevertheless, the freshwater withdrawals will be reduced within 2030 into scarce areas.
Water withdrawals – volumes by source	100%	100% of our activities use HARPE, the Company-wide environmental reporting system covers all the operating scope. HARPE allows the sites to collect up to 20 water quantity primary indicators (+aggregated ones) and 83 quality indicators. HARPE data collection is planned annually at Company level and on a monthly/quarterly basis at Business Units. 100% of our sites with withdrawing of +500,000 m3/year, report on their withdrawals by source, directly measured through flowmeters or very rarely, could be estimated. In 2021, withdrawals breakdown by source: Surface freshwater (11%), Brackish surface /seawater (59%), Groundwater- renewable (3%), Produced water (20%) and Third-party (7%). No significant change is expected soon. However, thanks to the strategy to get an operational excellence within an efficient water management and some specific projects for sites located into scarce areas, the freshwater withdrawal into scarce areas is expected to decrease within 2030.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%	100% of our activities use HARPE, the Company-wide environmental reporting system covers all the operating scope. HARPE allows the sites to collect up to 20 water quantity primary indicators (+ aggregated indicators). Based on international norms, it evolves in accordance with new frameworks. TotalEnergies water associated with our O&G sector activities volumes are measured through flowmeters and continuously monitored by source at all our facilities for sites. The volumes of produced water and their discharge destination are accounted by the E&P branch, including the share reinjected as part of the Enhanced Oil Recovery (EOR) process, and the share discharged to other water bodies. It is reported in the E&P segment's environmental reporting system to continuous daily monitoring and consolidated in the HARPE annually. An increase in produced water total volumes is possible in the future according to announced portfolio changes (new projects under development).
Water withdrawals quality	100%	TotalEnergies' water withdrawals are measured through flowmeters and continuously monitored at 100% of our facilities for sites with withdrawing of +500,000 m3/year. At site level, TotalEnergies monitors the parameters of withdrawals to ensure that human health standards and process requirements are matched. Indicators are consistently monitored through site-measurements (sensors) and include standard suit biophysical parameters such as pH, water hardness, pollutant loading, salt content etc. • EP & RC: depending on the sources (municipal, river...), the measurement frequency is aligned with the quality objectives, i.e., most of the time, water used for boilers is daily assessed or water for cooling purposes is weekly assessed. • IGRP: quality monitoring depends on the use (quality is important to manage the process and the use of chemicals in thermal power plants). According to the evolution of drought events, it is anticipated that the quality of withdrawal water could decrease.
Water discharges – total volumes	100%	TotalEnergies' water discharges are continuously monitored through flowmeters at 100% of our sites. HARPE, Company reporting system, allows the sites to collect up to 20 water quantity primary indicators (+ aggregated indicators) and 83 quality indicators. See more information above. TotalEnergies measures and monitors water discharges by volume through HARPE. Data is collected annually at Company level and daily/monthly/quarterly at some business units. Water discharges are monitored through HARPE for 100% of sites above the minimum threshold. In 2021, discharges breakdown by source: The breakdown of discharges by source: Surface freshwater (7%), Brackish surface water/seawater (60%), Groundwater-renewable (30%), Third-party sources (3%). No significant change in the TotalEnergies volume of discharge water is now anticipated.
Water discharges – volumes by destination	100%	TotalEnergies' water volumes are measured through flowmeters and continuously monitored at 100% of our facilities for sites with withdrawing of more than 500,000 m3 per year. All our activities use HARPE that allows sites to collect up to 20 water quantity primary indicators (+ aggregated indicators) and 83 quality indicators. TotalEnergies' business units report volumes of water discharges by destination for each operated facility (if material sites). Data is collected very frequently at site level (up to a continuous basis 24/7) through flowmeters and annually aggregated at HQ level. This indicator is monitored for 100% of sites above the minimum threshold. The HARPE destinations include: surface water, municipal or industrial wastewater treatment plans, groundwater.
Water discharges – volumes by treatment method	100%	Our water volumes are measured through flowmeters and continuously monitored at 100% of our facilities for sites with withdrawing of +500,000 m3 per year. All our activities use HARPE that allows sites to collect up to 20 water quantity primary indicators (+ aggregated ones) and 83 quality indicators. The water discharges are systematically treated as per the company requirements and daily measured and monitored. Company data consolidation is annually done for 100% of sites above the minimum threshold. Treatment typology depends on branches, water flow types and activities thus, the treatment methods are directly or indirectly monitored through classification of water flows available in HARPE. According to investment forecast, no significant change in the use of treatment method is anticipated, but we forecast adaptation to the current treatment for the onshore plants which are not yet compliant to our commitment of 1 mg/l of HC, or for new businesses (i.e. biofuels).
Water discharge quality – by standard effluent parameters	100%	TotalEnergies' water volumes are measured through flowmeters and continuously monitored at 100% of our facilities for sites with withdrawing of more than 500,000 m3 per year. All our activities use HARPE that allows sites to collect up to 20 water quantity and 83 quality indicators. Through HARPE TotalEnergies consistently measures water discharge quality. The following pollutants are monitored: Hydrocarbon content for E&P, macro-pollutants and micro-pollutants for RC, cadmium and nickel also COD and Suspended Solids for GRP. 100% of the significant sites monitor their discharges by sensors and aggregated at corporate level. New environmental targets have been defined to limit the hydrocarbon content of water discharges to below 30 mg/l for offshore sites and to below 1 mg/l for onshore and coastal sites by 2030. No significant change in the quality of our effluents is expected so far, except for the onshore plants that are not yet compliant with the target of less than 1 mg/l.
Water discharge quality – temperature	100%	100% of our activities use HARPE that allows sites to collect up to 20 water quantity primary indicators (+ aggregated indicators) and 83 quality indicators. The temperature of discharged water is monitored through sensors and thermometers at operations. Due to the difficulty represented by the heterogeneity of the requirements in line with different regulations and the mixing zone definitions, this information is not consolidated at Company level and is monitored at local level. However, it is quite systematically required by local regulations and to comply to IFC monitoring programs at certain sites and is one of the most closely monitored parameters. In RC branch, temperature is continuously monitored (24/7) and exceedance of temperature limit in wastewater is integrated in monthly reporting. For MS, the temperature is controlled at the main sites. For E&P, temperature is monitored only for cooling water discharged. We are not expecting major non-conformities on this parameter soon.
Water consumption – total volume	100%	100% of our activities use HARPE that allows sites to collect up to 20 water quantity primary indicators (+ aggregated indicators) and 83 quality indicators. TotalEnergies business units report their total volumes of water consumption for each operated facility in HARPE. These indicators are subject to continuous monitoring through flowmeters. Data collection and calculation is annual at Company level. Water Consumption is sometimes complex to monitor very precisely due to the difficulty to measure through flowmeters accurately Rainwater income. Consumption is thus measured for 100% as withdrawals and Discharges are monitored at 100% of the material reporting scope in HARPE. No significant change in the water consumption is expected so far.
Water recycled/reused	100%	100% of our activities use HARPE that allows sites to collect up to 20 water quantity primary indicators (+ aggregated indicators) and 83 quality indicators. The volumes of recycled/reused water are accounted at Company level through HARPE and are subject to continuous monitoring through flowmeters. Most of the recycled/reused water reported for CDP corresponds to E&P and RC. 51% of produced water is reinjected to the wells for reservoir pressure maintenance purposes (in top of more than the double of sea water also reinjected). Data collection is done annually at Company level and monthly/quarterly at some business . We expect to increase the use of recycled water in the future, some projects are studied especially when the use of freshwater can be in competition with other usages.
The provision of fully-functioning, safely managed WASH services to all workers	100%	TotalEnergies is committed through its code of conduct to respect the ILO convention to provide employees with adequate work conditions, including access to potable water, toilet facilities. Audits are conducted yearly with Goodcorp since 2002. Each year, a steering Ethics committee chooses the audited affiliates according to the results of the former audits. The audits last about 10 days, during which the WASH services are audited for our employees but also for our subcontractor's employees. In RC branch, bacteriological analyses are done for showers and water distributors every 2 months and more if needed. This process enables to continuously measure progress across 100% of our operations. Results are compiled at site level and all non- conformities are systematically reported at Company level through SHARE platform, a Company-wide system. No change is expected for the future.

**(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?**

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	557366	About the same	Our water withdrawals are about the same in 2021, with a 3% decrease (557,366 // 575,675 in 2020) at Company level. Breakdown by activity: EP 40%, RC 58%, IGRP 1%, and MS <1%. • EP withdrawals have decreased a 16% (225,083 // 268,661 in 2020). The evolution is driven by the large decrease (-25%) in non-freshwater used for Pressure Maintenance (sea water, ground-water and produced water), and waste water well (re-injection). This data is different from our 2021 URD, which only accounts 5.9 Mm³. It consists of sea water (118 Mm³ = 99.7% of other waters used, including 106.7 for pressure maintenance). The complement comes from Produced water which is indeed fossil water (112 Mm³) and thus its cycle (released or reinjected) is not linked to freshwater resource. Withdrawals for non-freshwater used for Pressure Maintenance in Angola and UK have decreased, as well as in UAE due to a portfolio change. • At RC, slight increase (+7%) related to the evolution of open cooling water needs for production. Freshwater withdrawals for production have slightly decreased, due to turnaround of 2 refineries (France & Germany). On the short to medium term, no significant change is anticipated apart from yearly variations in assets' perimeter and activity. • For IGRP, increase of 108% (7,264 // 3,490 in 2020) due to the inclusion of the CCGTs of St Avold and Castejon for a full year, the latter having a particularly high activity. Castejon represents almost half of the Branch's withdrawals. • For MS, the increase of 68% (1,397 // 0,800 in 2020) is due to a much better activity after Covid period. On the short to medium term, no significant change anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, TotalEnergies is committed to reduce by 20% freshwater withdrawals in water stress areas by 2030. RC activities represent around 90% of these freshwater withdrawals.
Total discharges	509996	About the same	TotalEnergies' water discharges are about the same in 2021 compared to previous year: with a 4% decrease in absolute terms (509,996 Megaliters in 2021 // 531,585 Megaliters in 2020), even though it covers different realities among the different branches. Breakdown by activity: EP 43%, RC 56%, IGRP <1%, and MS <1%. • EP discharges decrease (-17%) is largely related to the reduction of re-injection of certain categories of water (sea water and production water), such as discharged effluent waste water into deep well as well as for pressure maintenance, (-25%), but with an increase of production water discharges (+12%). • RC: Water discharges have increased in 2021 compared to previous year, with +8% in absolute terms (286,983 in 2021 // 266,781 in 2020). The evolution is mainly driven by the needs of open cooling for the production (relaunch after covid period). • For IGRP, there is a 78% increase of discharged water in 2021 compared to 2020 mainly due to the inclusion, in the reporting scope, of 2 sites Combined Cycle Gas Turbine (CCGT) in 2021, and, at a lesser extent, to a specific reporting on that matter for SAFT sites in 2021. • For MS, the discharges equal to the withdrawals and the increase of discharges (+75%) corresponds to the increase of withdrawals. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, our commitment to a low-carbon business model should reduce our dependency to natural resources including freshwater and subsequent discharges.
Total consumption	47368	About the same	TotalEnergies' water consumption is about the same in 2021 compared to the previous year with an increase of 7% in absolute terms (47,368 in 2021 // 44,090 in 2020). It is calculated as the difference between the total of withdrawals and The total of discharges at the Company level. In absolute values, we notice a slight decrease of our water consumption because of our progress initiatives regarding discharges, the effects of the covid pandemic at the RC and MS divisions. In conclusion the withdrawals have decreased less (-3%) than discharges (-4%). Breakdown by activity: EP 12%, RC 77%, IGRP 10%, and MS 0. • EP water consumption has decreased in 2021 compared to previous year, of a 2% in absolute terms (5,889 in 2021 // 6,017 in 2020). This is a minor balance change according to the large volumes (consumption represents 3% of all withdrawals (225 million m3 combining sea water, ground water, production water and fresh water). • At RC branch, the consumption has increased of 2% (36,638 in 2021 // 35,943 in 2020), the withdrawals have increased a little more than the discharges, mainly because of the needs for open cooling... • For IGRP, there is a 127% increase of water consumption in 2021 compared to 2020 due to the inclusion of in the reporting scope, of 2 sites Combined Cycle Gas Turbine (CCGT) in 2021. • For MS, the consumption equals to 0 as discharges = withdrawals. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, TotalEnergies' commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.

W-OG1.2c

**(W-OG1.2c) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed – by business division – and what are the trends compared to the previous reporting year?**

	Volume (megaliters/year)	Comparison with previous reporting year %	Please explain
Total withdrawals - upstream	225083	Lower	The EP segment encompasses 100% of upstream activities. According to the CDP definitions, EP withdrawals (= 40% of TotalEnergies withdrawals) are lower with a 16% of decrease compared to previous year (225,083 in 2021 // 268,661 in 2020). EP water withdrawals include produced water and non-freshwater. The variation is mainly driven by the large decrease (-25%) in non-freshwater used for Pressure Maintenance purposes (sea water, and/or produced water), and/or wastewater well (produced water reinjection). Of note, this data is different from the TotalEnergies' 2021 URD, which only accounts for the freshwater withdrawals (5.9 million m³). It consists mainly of sea water including 106.7 million m³ used for pressure maintenance. The complement comes from Produced water which is indeed fossil water (112.4 million m³) and thus its cycle (either released or reinjected) is not linked to actual freshwater resource. In 2021, withdrawals for non-freshwater used for Pressure Maintenance mainly in Angola and UK have decreased, as well as in UAE due to a portfolio change. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. An increase in produced water total volumes is possible in the future according to announced portfolio change (new projects under development).
Total discharges – upstream	219194	Lower	The EP segment encompasses 100% of upstream activities. EP water discharges (=43% of the TotalEnergies discharges) are lower with a 17% decrease in 2021 compared to previous year, in absolute terms (219,194 in 2021 // 262,644 in 2020). The variation is mainly driven by unavailability of produced water injection. Moreover, TotalEnergies considers that the definition of discharge should not include water reinjection, since sea or produced water is reinjected in a fossil reservoir, replacing oil. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. An increase in water reinjected in oil reservoirs is possible in the future according to announced portfolio changes (new projects under development).
Total consumption – upstream	5889	About the same	The EP segment encompasses 100% of upstream activities. Its water consumption is about the same compared to previous year (5,889 in 2021 // 6,017 in 2020). For EP segment, the consumption is stable in 2021 compared to 2020 considering the large volume of withdrawals and discharges (mainly of sea water and production water). 90% of the sea water is used for re-injection for pressure maintenance; all production water is either re-injected either discharged. The difference (2.7% of volume) is mainly used for domestic use, drilling and/or process. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, TotalEnergies' commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater.
Total withdrawals - midstream/downstream	332283	Higher	The figures provided relate to Refining and Chemical activities, IGRP and MS segments. The total of water withdrawals for these activities are higher with an 8% increase compared to previous year (332,283 in 2021 // 307,014 in 2020). • At the RC segment, the slight increase in the volume of non-freshwater withdrawals is mainly related to the increase of open cooling water needs for production. On another hand, freshwater withdrawals for production have slightly decreased, due to turnaround of two refineries (in France and Germany). • For the other divisions (MS and IGRP segments) the economic recovery following the coronavirus pandemic is responsible of the increase of water withdrawals in 2021 + integration of 2 CCGT into our perimeter. On the short to medium term, no further significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, TotalEnergies's commitment to a low-carbon business model and to reduce by 20% freshwater withdrawals in water stress areas by 2030 should reduce its dependency to freshwater. RC activities represent around 90% of these freshwater withdrawals.
Total discharges – midstream/downstream	290802	Higher	The figures provided relate to Refining and Chemical activities, IGRP and MS segments. The total of water discharges for these activities are higher due to an 8% increase compared to previous year (290,802 in 2021 // 268,941 in 2020). • The slight increase in the volume of discharges is mainly driven by the needs of open cooling for the production (relaunch after covid period). On the short to medium term, no further significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, TotalEnergies' commitment to a low-carbon business model should reduce its dependency to natural resources including freshwater and subsequent discharges.
Total consumption – midstream/downstream	41479	Higher	The figures provided relate to the RC Branch including both Refining and Chemical activities, IGRP and MS segments. The total of water consumption is calculated as the difference between the total of Company withdrawals and the total of Company discharges and the result is higher (+8.9%) compared to previous year (41,479 in 2021 // 38,073 in 2020). The withdrawals have increased more in quantity (+8.2%) than the discharges (+8.1%). In absolute values, the water consumption has increased because of our progress initiatives. For example, there was a slight increase in water consumption on the combined cycle gas plants (<5%) which is due to the evolution of the units from 4 to 6. On the short to medium term, no significant change is anticipated for this indicator, apart from yearly variations in assets' perimeter and activity. On the longer term, our commitment to a low-carbon business model should reduce our dependency to natural resources including freshwater.
Total withdrawals – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total withdrawals – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

**W1.2d**

**(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.**

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	1-10	About the same	WRI Aqueduct	To identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawals of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI Aqueduct tool. In 2021, the Company's sites withdrew 101 million m3 of fresh water for their operational needs, with net consumption of 75 million m3 (in 2020 105 million m3 of fresh water, with net consumption of 75 million m3). 54% of this volume was withdrawn in of high or extremely high-water stress areas according to the WRI definition, i.e. areas where human demand for water exceeds 40% of resources available. These are mainly highly populated urban areas, such as urban areas in Northern Europe. According to the CDP Water definition, these withdrawals represent 10% of the overall Company's water withdrawals (including brackish water and seawater). For priority sites defined as those located in water stress areas and withdrawing more than 500,000 m3 per year, TotalEnergies assesses water resources risk levels using the Local Water Tool (LWT) for Oil & Gas from the Global Environmental Management Initiative (GEMI). For the sites whose assessment shows some risks, some studies have been carried out based on a detailed water balance, to identify actions to mitigate risks and optimize water usages. This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users. Globally, most of the sites operated by the company are not particularly exposed to water risk. In 2021, we identified 9 sites which will be in water stress areas in 2030, on which we aim at reducing the freshwater withdrawal by 20%: - RC: 6 material sites representing 56% of RC freshwater withdrawals are in future water stress areas. - IGRP: 3 sites representing 77% of the IGRP freshwater withdrawals are in future water stress areas.

## W1.2h

### (W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	61587	Higher	The fresh surface water withdrawals are higher of 12% in 2021 (61,587 // 55,187 in 2020). Breakdown: RC 92%, IGRP 7% and EP 1%. Freshwater withdrawals are relevant to meet domestic needs of employees and for industrial uses. Rainwater is accounted on certain sites since 2019 thanks to an improved accounting method. • At RC, the slight increase of withdrawals of 7% (56,667 // 53,087 in 2020) is related to a slight increase of rainwaters and the relaunch of activities after the Covid period. The water withdrawals from rivers are mainly used to produce steam and for cooling. • IGRP withdrawals have increased of 186% in 2021 (4,352// 1,520 in 2020), due to new power plants integrated into the perimeter. 60 % of the IGRP withdrawals comes from fresh surface water. The main power plants have launched a project to get a detailed water balance and identify actions to optimize water management. Our commitment to reduce freshwater withdrawals to 20% by 2030 applies to our sites in Europe.
Brackish surface water/Seawater	Relevant	330483	About the same	Total's brackish surface water/seawater withdrawals are about the same in 2021 with a 4% decrease (330,483 // 344,883 in 2020). Breakdown: RC 68% and EP 32%. This has been consistently calculated through the Company-wide reporting system HARPE. • At the RC, brackish water/seawater is only used for once-through cooling purposes. Withdrawals are higher in 2021, with an 10% increase (223,774// 203,785 in 2020) due to the relaunch of activities after the Covid period. • For EP, brackish surface water/seawater withdrawals have decreased in 2021 of an 24% (106,709 // 141,098 in 2020). These withdrawals maintain reservoirs pressure over time. Non-freshwater withdrawals consist almost entirely of open ocean seawater, an infinite resource, not conflicting with any other usage and thus not causing any water security issue. It is a vital use for the continuity of EP's operations. Future trend: Brackish water use may not increase in the future, according to operation needs.
Groundwater – renewable	Relevant	15070	About the same	Renewable groundwater withdrawals from our activities are about the same in 2021 (-1%) (15,070 // 15,221 in 2020). Breakdown: RC 61%, EP 30% and IGRP 9%. Some sites are fully depending on renewable groundwater due to specific and remote location and to technical production aspects, and despite of the low volume of 15,070 Megaliters, this source is relevant for TotalEnergies, mainly for the refining activities. • RC renewable groundwater withdrawals are about the same (-2%) (9,301 in 2021 // 9,444 in 2020). To be noticed that these withdrawals are under a mandatory treatment by regulation to ensure the quality of groundwater. • EP renewable groundwater withdrawals are about the same in 2021 (+6%) and the groundwater volume is minor compared to sea water and produced water volumes. • IGRP renewable groundwater withdrawals have decreased in 2021 (-16%). In the next 5 years, no significant change is expected for this source of water.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	TotalEnergies does not consider Produced Water as ground water and does not use non- renewable ground water, considering that this practice is not sustainable.
Produced/Entrained water	Relevant	112437	Lower	EP Produced water withdrawals (100% of TotalEnergies' PW withdrawals) have decreased in 2021 compared to previous year, with an -7% decrease in absolute terms (112,437 in 2021 // 121,517 in 2020) due to variations at operations mainly in Africa and North Sea. Produced water is brought to the surface during the production of hydrocarbons. Volumes include the share reinjected in the EOR process, and the share discharged to other water bodies. The volumes of produced water depend on the age of wells: the oldest ones give more produced water. This indicator is linked to portfolio evolution. Smart, safe management of this produced water is both a business opportunity (treatment and recycling/reuse) and a regulatory necessity (compliance) to ensure a responsible approach towards local communities.
Third party sources	Relevant	37789	About the same	Some sites are fully depending on third party sources, and despite of the low volume, this source is relevant for TotalEnergies. Water from third-party sources (mainly municipal networks) is about the same (-3% = 37,789 in 2021 // 38,867 in 2020). Breakdown by activity: RC 90%, IGRP 4% MS 4% and EP 2%. • At RC, a few major industrial refineries in Europe are quite fully depending on third-party sources and withdrawals have decreased (-7%), due a turnaround of some refineries. • For IGRP third-party withdrawals have increased in 2021, +284% due to the integration of one CCGT into the perimeter. • For the MS (4%), only the largest retail networks (France) is reporting with an increase of 68% due to the economic recovery following the coronavirus pandemic. • E&P third-party withdrawals are very limited and have decreased (-27%). The trend should remain stable in the future, mainly due to an equal level of activity and portfolio for the sites that depend to this water source.

## W1.2i

### (W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	33541	About the same	Water discharges to fresh surface water have been about the same in 2021, with a - 4% decrease (33,541 in 2021 // 34,796 in 2020). Breakdown by activity: RC 60%, EP 35% and IGRP 5%. • At the RC branch, fresh surface water discharges have decreased in 2021 (-13%), mainly due to variation of perimeter (one refinery sold) • E&P fresh surface water discharges have increased in 2021, (+7%). Water discharges are mainly done in coastal area but are classified as fresh surface. • IGRP total fresh surface water discharges have increased in 2021 (+105%) due to 2 new power plants into the perimeter. On the short-medium term, there is no significant variation to expect. The trend should remain stable in the future, mainly due to an equal level of activity and portfolio for the sites that discharge into this water body.
Brackish surface water/seawater	Relevant	307609	Higher	Water discharges to brackish surface water are higher in 2021, with an 9% increase (307,609 in 2021 // 282,009 in 2020). Breakdown by activity: RC 82% and EP 18%. • For RC, there is an increase mainly due to a higher amount of cooling water +9% (withdrawn and discharged) due to the relaunch of activities after the Covid period. • At EP operations, the variation is higher (+12%) due to the increase at offshore operations in Africa and North Sea. There is no foreseeable change expected in the future. The trend should remain stable at RC or varying according to EP operations.
Groundwater	Relevant	153509	Much lower	Water discharges in groundwater (EP 100%) are much lower in 2021, with a decrease of 24% (153,509 // 203,365 in 2020), due to decreases in sea water and produced water reinjected. Relevant to EP operations due to high reservoirs pressure maintenance activities and/or produced water reinjection. Reinjection is perceived as the best way to handle produced water and neutralize their possible impact to environment. TotalEnergies does not consider Produced Water Reinjection as discharge to groundwater (not discharged to a water body) and does not discharge water to groundwater resources aside from this activity. The use of the term discharge to groundwater corresponds to discharge to Hydrocarbon reservoir and includes non-freshwater (sea and produced water). There is no foreseeable change expected soon. An increase in water reinjected in oil reservoirs is possible in the future according to announced portfolio changes (new projects under development).
Third-party destinations	Relevant	15338	Much higher	Water discharges to third-party destinations are much higher with an increase of 34% (15,338// 11,412in 2020) Breakdown: RC 87%, IGRP 4% and MS 9%. • For RC, +31%. Generally third-party discharges are relevant for RC's chemical specialties activities (Hutchinson) which use external wastewater treatments (municipal or industrial). • For IGRP, +33%, mainly due to the integration of one new CCGT. • For MS, +75% due to the relaunch after the Covid period. In cities, the water is used in carwash stations through water recycling systems, in case of droughts (Municipality restrictions). 50% of the European stations are fitted with recycling units to reuse 80% (20% of freshwater is mandatory for technical criteria of the automatic equipment). In stations "without water", 2-3 water liters are only necessary. There is no foreseeable change expected in the future. The trend should remain stable, mainly due to an equal level of activity and portfolio for the sites that discharge to third parties.

## W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	41600	About the same	21-30	This treatment is only relevant for the RC division (100%) as the other divisions don't have such treatments. TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. In addition, TotalEnergies applies its company standard that consists of biological treatment with aerobic/anaerobic steps. The discharges by tertiary treatment are about the same -7% (41,600 in 2021 // 44,600 in 2020). For TotalEnergies, the tertiary treatment is applicable at a refinery, where 3 different stages are applied and the last one consists of a biological treatment with aerobic/anaerobic steps. The volume of effluents to be treated is about the same as 2020, with a recovery after Covid-19 of some sites but some turnaround into 2 refineries.
Secondary treatment	Relevant	224000	Lower	21-30	This treatment is relevant for the activities: EP (98%), RC (1%), and IGRP (1%). The discharges by secondary treatment are lower: -16% (224,000 in 2021 // 266,400 in 2020). TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. At TotalEnergies, the secondary treatment consists in physical and chemical treatments with flocculation and without any biological treatment. • For RC: it corresponds to some petrochemical sites. • For EP: Fully aligned with the need of pressure maintenance and re-injection of produced water. However, the secondary treatment is only partial, compared to CDP definition, as it mainly consists in physical and chemical treatments without any biological treatment only considered on onshore installations. • For IGRP: A physical-chemical treatment is carried out before the water is discharged into the natural environment in certain gas power plants.
Primary treatment only	Relevant	5700	About the same	21-30	This treatment is only relevant for RC (77%) et MS (23%) divisions. The discharges by primary treatment are about the same +10% (5,700 in 2021 // 5,200 in 2020). TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. For TotalEnergies, the primary treatment is a treatment with decantation. • RC: it is applied at some petrochemicals sites. • MS: it corresponds to highway stations and storage units. It has increased due to the relaunch of activities after Covid period.
Discharge to the natural environment without treatment	Relevant	1200	Higher	Less than 1%	This treatment is relevant for the RC (99,9%) and IGRP (0,01%) divisions. The discharges to the natural environment without treatment are higher 100% (1,200 in 2021 // 0 in 2020). TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. • RC: it corresponds to the water for open cooling systems, which does not need any treatment as the water quality has not been modified. • IGRP: Where municipality grids are not available and discharge in compliance with emission limit values. Not recorded due to the small volume. • For E&P and MS, there isn't any discharge of this type.
Discharge to a third party without treatment	Relevant	13000	Higher	1-10	This treatment is relevant for the RC (95%) and IGRP (5%) divisions. The discharges to a third party without treatment are higher +23% (13,000 in 2021 // 10,600 in 2020). TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. • RC: for most of the RC sites, water effluents are pre-treated before sending them to a third-party network. • IGRP: The water discharged by battery manufacturing plants is sent to the public network for external treatment. Sanitary water from the cycle combined gas power plants is also discharged to the network for external treatment. The third party takes care of the effluents, and discharges through an appropriate treatment compliant with local regulations. Not recorded due to the small volume. • E&P and MS divisions don't use this type of treatment (MS division: the service stations send their effluents to third party as domestic effluents, but they don't report in HARPE as their figures are far below the defined reporting threshold)
Other	Relevant	224496	Higher	Less than 1%	This category is relevant for RC (99,7%) and IGRP (0,3%) divisions. The discharges (any other method) are higher +10% (224,496 in 2021 // 204,700 in 2020). TotalEnergies complies with all local and national regulatory standards. The sites ensure compliance with the emission limits set by their local regulations. • RC: it corresponds to water discharged towards some industrial users. • IGRP: the treatment method analysis is still in progress for the other IGRP sites.

## W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	15650700000	557366	280797.536986468	Revenue in €. For the future, we anticipate increasing the efficiency rate through an optimised used of water at direct operations and from the value chain. We have committed to reduce freshwater withdrawals to 20% between 2021 and 2030 for sites located into high or extremely high scarce areas. The management of produced water is a business opportunity (recycling/reuse) and a regulatory necessity (compliance) for a responsible approach towards local communities and the water scarcity.

## W-OG1.3

(W-OG1.3) Do you calculate water intensity for your activities associated with the oil & gas sector?

Yes

## W-OG1.3a



**(W-OG1.3a) Provide water intensity information associated with your activities in the oil & gas sector.**

**Business division**

Other, please specify (Overall company)

**Water intensity value (m3)**

1.02

**Numerator: water aspect**

Other, please specify (Freshwater withdrawals in water stressed areas)

**Denominator**

Other, please specify (Adjusted Net Operating Income €)

**Comparison with previous reporting year**

Higher

**Please explain**

The overall water withdrawals in the main sites in 2030 water stress areas are 275 Mm3 in 2021, compared to 253 Mm3 in 2020 (the increase is due to more brackish water withdrawals for open cooling following recovery of activity after Covid period). For the sites concerned, the net operating income was 270 M€ in 2021. This metric has been calculated for the first time for our 2021 reporting regarding the COP (Communication On Progress) to United Nations Global Compact. This metric might help us to get a detailed benchmark and identify possible margin for improvement or possible needs for innovative technology implementation. The water intensity has increased compared to 2020 because 2020 activity was low due to Covid (net operating income was negative in 2020). This water intensity should improve by 2030 thanks to our strategy to reduce the freshwater withdrawals of these sites located in water stressed areas.

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**Business division**

Midstream/Downstream

**Water intensity value (m3)**

0.64

**Numerator: water aspect**

Freshwater withdrawals

**Denominator**

Other, please specify (MWh produced)

**Comparison with previous reporting year**

Higher

**Please explain**

This metric corresponds to IGRP division, and more precisely to the activity of 6 combined cycle gas turbine (CCGT) power plants and does not include Cogen production associated with RC activities. It is calculated as the total water withdrawals of the plants (6,79 Mm3) divided by the electricity produced (10,58x10<sup>6</sup> MWh). Compared to last year, we record an increase of 33% (0,64 m3/MWh in 2021 // 0,48 m3/MWh in 2020) due to the inclusion of 2 CCGT in 2021 with Aero Refrigerating Towers cooling system. This metric is observed and is subject to a detailed sector benchmark, which helps review our strategy to reduce water intensity and identifying possible margin for improvement or possible needs for innovative technology implementation. The power plants located in water scare areas have launched a project to get a detailed water balance and identify actions to reduce withdrawals, this indicator should decrease in a long term.

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**W2. Business impacts**

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**W2.1**

**(W2.1) Has your organization experienced any detrimental water-related impacts?**

No

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**W2.2**

**(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?**

No

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**W3. Procedures**

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**W-OG3.1**

**(W-OG3.1) How does your organization identify and classify potential water pollutants associated with its activities in the oil & gas sector that may have a detrimental impact on water ecosystems or human health?**

The operations generate discharges of wastewater and the risks of soil pollution related to its operations come mainly from accidental spills and waste storage. The Company's operations generate emissions into the atmosphere from combustion plants and the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, TotalEnergies has drawn up rules and guidelines that the Company's Subsidiaries can use to limit the quantities discharged. TotalEnergies has set targets for limiting its hydrocarbon discharges into water. 100% of the onshore sites comply with the objective of 15 mg/l and 80% with the 2022 objective of 1 mg/l.

**POLICIES:** In keeping with its Safety Health Environment Quality charter, TotalEnergies considers respect for the environment to be a priority. All employees, at every level, must do their utmost to protect the environment as they go about their work. To manage the operational risks, the Company adopted a preventive and remedial approach putting in place centralized HSE and management systems. TotalEnergies relies on the HSE division, part of the STS division, whose President is a member of the EXCOM. The HSE division coordinates the implementation of the Company's HSEQ charter.

The Company's HSE audit protocol is based on the One MAESTRO framework and includes the requirements of the international standard ISO 14001:2015 and ISO 45001:2018. The status of actions taken following audit observations beyond a defined severity level is reported to the business segment and HSE divisions every semester. The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 79 sites were compliant in 2021. In addition to this requirement, a total of 279 sites operated by the Company were ISO14001 certified. In 2021, 22 new sites received ISO14001 certification.

TotalEnergies has set itself targets for reducing sulphur dioxide (SO2) emissions and is committed to limiting its hydrocarbon discharges into water. After analysis, the exposed sites can introduce various reduction systems that include organizational measures (such as using predictive models to control peaks in SO2 emissions based on weather forecast data and the improvement of combustion process management, etc.) and technical measures (wastewater treatment plants, using low NOX burners and electrostatic scrubbers).

**FRAMEWORKS:** TotalEnergies refers in its water pollutants management both to regulatory and industry best practices. Regulatory frameworks can be national/supranational (REACH or SEVESO) or international conventions (Barcelona Convention or OSPAR). TotalEnergies refers to industry best practices, from organizations including the IOGP, IPIECA, CONCAWE, which play an important role in developing sound science to address these issues for E&P and RC. TotalEnergies participates in industrial working groups, to identify and anticipate potentially dangerous substances contained in effluents, through studies and extensive analysis campaigns, by asking the sites to respond to Surveys, to establish benchmarks and cross information from sites. TotalEnergies has its own research centre with pilot rivers and is testing various methods to highlight the ecotoxicity of effluents.

**VALUE CHAIN:** As to its value chain, water pollution risks are part of the parameters integrated in TotalEnergies' suppliers' assessment, especially through the identification of those with production sites in Ramsar (wetland) protected areas, which are paramount importance areas for water natural reclaim and resource. TotalEnergies procedures also require that purchased chemicals be selected to minimize toxicity, bioaccumulation and persistence in the environment to protect both environment and human health. TotalEnergies engages with its clients on water pollution risks through labelling information on its products, by providing regulatory end-of-life information. The Company is approaching industrial recognized experts to capitalize on the momentum of expertise and the partnerships forged with the major water treatment companies make it possible to create an integrated water management system, both upstream and downstream. With all partners, a technical brief is defined on water treatment parameters. The objectives apply both to water withdrawals, the treatment of produced waters and to the water discharges. TotalEnergies' water treatment suppliers must commit to controlling chemical products injection, to monitoring the levels of legionellosis but also to following and avoiding all potential pollutions in rejected waters. A reflection is carried out on the optimization of the recirculation of water and the conformity of WWTP on the levels of BTX pollutants. A roadmap will be defined to make standard certain virtuous practices.

**W-OG3.1a**

**(W-OG3.1a) For each business division of your organization, describe how your organization minimizes the adverse impacts on water ecosystems or human health of potential water pollutants associated with your oil & gas sector activities.**

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
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Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Upstream Midstream/Downstream	Hydrocarbons are organic compounds that naturally occur in crude oil. If massively released to the environment (during production, transport or refining) through water discharge or accidental spills, hydrocarbons can significantly impact natural environments (both fauna and flora). The scale of impacts generated can vary depending on the volume of hydrocarbons discharged and can go from very localized impacts for minor spills to major environmental impacts for large oil spills. Chronic risks related to produced water releases containing naturally occurring substances such hydrocarbons are possibly reaching an Environmental Impact Factor (EIF) above 10 according to Norwegian Continental shelf (NCS) standards. Among potential impacts it can be noted: fishes, benthic fauna, plankton, invertebrates mortality, reproduction adverse effects, physical contamination of sediments including river banks, shoreline and soil, long term chronic effects on endocrine systems or reproduction.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness	Early 2022, TotalEnergies set a new target for the quality of onshore discharge water by 2030. Compared to the previous target, it divides by 15 the maximum hydrocarbon content expected for discharges. In 2021, 100% of the onshore sites comply with the previous objective of 15 mg/l and 80% with the new objective of 1 mg/l by 2030. Studies have been launched to improve the discharges from sites still not in compliance. The EP worldwide objective can be complemented by risk analysis based on the DREAM model for offshore EP sites to identify potential issue and implement mitigation action plan. Our approach combines thresholds and risk analysis and treatment systems adapted to pollution risk reduction. The risks of soil and water pollution to our operations come mainly from accidental spills and waste storage. To prevent the risk of accidental pollution, TotalEnergies monitors indicators to assess the preparedness of operated sites for oil spills. In 2021, 119 sites had a risk analysis which identified at least one risk of major accidental pollution to surface water and 100% of those sites have an operational oil spill contingency plan. 97% of those sites have performed an oil spill response exercise or an exercise was prevented following a decision by the authorities. In accordance with industry best practices, TotalEnergies monitors accidental liquid hydrocarbon spills of more than one barrel. Spills that exceed a predetermined severity threshold are reviewed monthly and annual statistics are sent to the Company's Performance Management Committee. All spills are followed by corrective actions aimed at returning the environment to an acceptable state as quickly as possible. The Company has drawn up a guide to prevent pollution by: 1. preventing leaks through industry best practices in engineering, operations and transport 2. carrying out maintenance at appropriate frequency 3. overall monitoring to identify any soil and groundwater pollution 4. managing any pollution by means of containment and reduction or elimination operations. In accordance with industry best practices, TotalEnergies also monitors accidental liquid hydrocarbon spills of more than one barrel. As a success measure, zero fine has been recorded. VALUE CHAIN: Position papers are established jointly between HSE and Division's strategy departments. Documents are exposed to the Branch Management Committee or to the EXCOM, to verify they are in line with the Company's stated objectives.
Chemicals	Upstream	TotalEnergies' activities may potentially be located in sensitive natural environments. The Company is fully aware of this challenge and takes biodiversity and ecosystems into account in its reference frameworks, the founding element of which is its Safety Health Environment Quality charter, as well as in projects and operations. Chemical products used by Exploration and Production activities represent half the cost of TotalEnergies' chemical products. However, the Company's management standards are applicable for all of its activities. This includes sludges, drilling fluids, etc. Mismanagement of chemicals can lead to harmful products being released into the environment. This can affect local ecosystems, both in terms of fauna (e.g. toxic products' impact on biodiversity) or flora (e.g. lower soil fertility). The scale of impacts generated can vary depending on the volume of chemicals discharged and can go from very localized impacts for minor chemical discharges to significant environmental impacts for large chemical mismanagement events.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness	For the management of chemical products, TotalEnergies refers to both relevant regulatory standards (such as the CLP and REACH at European level) and industry best practices. The ISO 14001 principles are implemented at Company level in company rules (for toxic products storage and confinement for instance) and cascaded at site level as well. TotalEnergies implements Environment Management Systems taking chemicals into account from the selection/supply step until the disposal step. For the latter return to the supplier is even considered as priority. These principles are set in the environmental management system MAESTRO, which details the HSE management principles (ISO 14001 standards). This is supported by specific documents such as guide on polluted sites and soils, emergency response plan etc.). DREAM modelling is also applied to maintain an ALARP risk assessment (As Low As Reasonably Practicable) related to the discharge of certain chemicals through produced water. TotalEnergies is also applying a policy for offshore chemicals (e.g.: drilling fluids, production chemicals) to avoid detrimental chemical usage and discharge. Chemicals are also present in hydrotest water (water used to test pipelines). TotalEnergies promote the use of risk-based approaches to minimize any potential harmful impact related to the discharge of chemicals. As a success measure, no major pollution or fine has been reported. For its chemical supply, TotalEnergies applies environmental criterion pertaining to ecotoxicity, bioaccumulation and biodegradation to select the most environmentally friendly chemicals and at the end of the value chain, ensures a proper disposal of chemicals with the lowest environment impact.
Cuttings	Upstream	Drill cuttings are the broken bits of solid materials removed as part of O&G wells drillings. Improper disposal of the resulting waste can lead to water pollution, especially at offshore sites. The scale of impacts generated varies depending on the volume and nature of mismanaged cuttings, and the sensitivity of the sediment community (benthos). Shannon-Winner indexes (an indicator of local biodiversity) could be significantly affected and get much lower than 2 by improper release of high hydrocarbon content drilling wastes or if the chemical content of released cuttings is inappropriate.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness	Cuttings are subject to the same risk assessment approach as chemicals and Hydrocarbons. In certain countries and some specific operations, TotalEnergies applies a "zero discharge" policy, particularly for drilling waste (drill cuttings) which are brought back to shore and treated appropriately to avoid any discharge to the sea. TotalEnergies implements a water column and sediments monitoring program every 5 years in order to monitor possible impacts during the whole life of the field. TotalEnergies uses the MEMW (Marine Environmental Modelling Workbench) model to assess the potential risk of the cutting's particles on the water column and this is used to support drilling and fluid program strategy in order to reduce the impacts on water column as much as possible. As a success measure, no major pollution or fine has been recorded. Since year 2000, TotalEnergies has engaged in different programs assessing and reducing drilling waste impacts on water topics and has now a strong set of tools and practices that are shared in the countries where EP has operations.
Chemicals	Midstream/Downstream	Improper disposal of waste can lead to water pollution, especially at RC and IGRP sites. TotalEnergies' potential pollutants are Hydrocarbon (HC), COD, COT, heavy metals, phenols, BTEX and Polycyclic aromatic hydrocarbons (PAHs), Nitrogen. For the IGRP division, combined cycle gas power plants generate chloride, nitrogen and sulphate chemicals. The analyses carried out on the discharges ensure that the sites comply with the limit values for pollutant emissions. All these pollutants have various impacts, the consequences could be to sustainably alter the aquatic fauna and flora or threaten the use of the natural environment as a resource.	Compliance with effluent quality standards	TotalEnergies has established procedures that help to manage Chemicals risks: • RC: Implementation of self-monitoring programs in accordance with permits. Monthly monitoring of emission limit overruns. Systematic investigation of the causes and implementation of action plans in case of water treatment dysfunctions. Three action plans have been put in place for the period 2020. Sites from RC monitor their water effluents in a regular basis (daily for some pollutants), and monthly performance is screened by headquarters. • IGRP: For our CCGT sites, the impact on effluent quality is controlled through regular monitoring. Very few exceedances reported in 2021. As a success measure, no formal notice on the quality of discharges over the 2021 period and zero fine has been recorded.

### W3.3

#### (W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

### W3.3a

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**(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.**

**Value chain stage**

Direct operations

**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed as part of an established enterprise risk management framework

**Frequency of assessment**

More than once a year

**How far into the future are risks considered?**

More than 6 years

**Type of tools and methods used**

Tools on the market

International methodologies and standards

Databases

**Tools and methods used**

EcoVadis

GEMI Local Water Tool

WRI Aqueduct

Environmental Impact Assessment

Life Cycle Assessment

IPCC Climate Change Projections

ISO 14001 Environmental Management Standard

ISO 14046 Environmental Management - Water Footprint

Regional government databases

Other, please specify (PROTEUS, GRMC, SRM+, ERASM (Internal Risk Assessment Tool), External consultants, ORISK)

**Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

**Stakeholders considered**

Customers

Employees

Investors

Local communities

NGOs

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

**Comment**

We implement a comprehensive risk management system based on a continuous process of identifying and analysing risks to determine those that could prevent the achievement of the objectives as well as the management systems. The ExCom, with the Risk Management Committee, is responsible for risks. The activities, RC, and those of the IGRP, may potentially have an impact on water resources, particularly when the activity concerned is in a water resources sensitive environment. TotalEnergies implements the following water risk management actions: –monitor water withdrawals to identify priority sensitive sites and carry out a risk assessment –improve water resources management by adapting the priority sites’ environmental management system. To identify facilities exposed to water stress, we record the withdrawals on all operated sites significant and assess these volumes based on the current and future water stress indicators of the WRI Aqueduct tool. In 2021, the Company’s sites withdrew 101 Mm3 of freshwater (op. needs), with net consumption of 75 M m3. 54% this volume was withdrawn in areas of water stress according to the WRI definition, i.e., areas where human demand for water exceeds 40% of resources available. For priority sites located in water stress areas and withdrawing more than 500,000 m3 per year, TotalEnergies assesses water resources risk levels using the Local Water Tool (LWT) for O&G from the GEMI tool. A water balance done locally helps guide the actions taken to mitigate the risks and to make optimal use of water resources on the sites when necessary. This risk assessment establishes that the activities of the sites operated by the Company have a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut to maintain access to water for priority users. For the future, we anticipate increasing the efficiency rate through an optimised used of water at operations and from the value chain. TotalEnergies committed to reduce freshwater withdrawals to 20% in 2030 for sites located into high or extremely high scarce areas. Water-related risks are systematically evaluated as part of projects’ Environmental Impact Assessment (EIA) in their prospect and design phases LCA as a decision-making Tool. EIAs are systematically used for projects and enable to give information to ExCom through the CORISK. WRI Aqueduct and the Local Water Tool are systematically used according to the strategy.

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**Value chain stage**

Supply chain

**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed as part of an established enterprise risk management framework

**Frequency of assessment**

More than once a year

**How far into the future are risks considered?**

More than 6 years

#### Type of tools and methods used

Tools on the market  
International methodologies and standards  
Databases

#### Tools and methods used

EcoVadis  
GEMI Local Water Tool  
WRI Aqueduct  
Environmental Impact Assessment  
Life Cycle Assessment  
ISO 14001 Environmental Management Standard  
ISO 14046 Environmental Management - Water Footprint  
Other, please specify (United Nations Environmental Program WCMW PROTEUS, IPIECA, GRMC, SRM+)

#### Contextual issues considered

Water availability at a basin/catchment level  
Water quality at a basin/catchment level  
Stakeholder conflicts concerning water resources at a basin/catchment level  
Implications of water on your key commodities/raw materials  
Water regulatory frameworks  
Status of ecosystems and habitats  
Access to fully-functioning, safely managed WASH services for all employees

#### Stakeholders considered

Customers  
Employees  
Investors  
Local communities  
NGOs  
Regulators  
Suppliers  
Water utilities at a local level  
Other water users at the basin/catchment level

#### Comment

The activities of The Company's subcontractors and suppliers are likely to present the same environmental risks as those associated with our activities. They relate for the use of natural resources such as water. In 2020, TotalEnergies Global Procurement finalized the update of the supply chain risk mapping, based on research conducted by AFNOR on the human rights and environmental risks associated with each procurement category. This mapping includes risks to pollution, adverse impacts to biodiversity and resources (including water). It is available to buyers. The mapping of the risks and impacts is supplemented by CSR mapping of the risks linked to procurement, by category of goods and services. TotalEnergies has put in place a Supplier assessment procedure with a view to identifying and preventing risks of severe impacts. The Company periodically audits Suppliers to assess working conditions during the life of the contract. A targeted annual audit plan is defined every year and includes Suppliers at risk with the objective of auditing strategic Suppliers as well as Suppliers at risk every 3 years. In addition, the proposed Supplier's employees are screened for previous conviction or implication in human rights violations. To help Suppliers implement these Principles correctly, a Practical Guide on Human Rights at Work, with a training plan, were prepared in 2021 for distribution to Suppliers. In 2022, the Company updated the Fundamental Principles of Purchasing to better integrate climate, biodiversity, circular economy, and responsible use of natural resources (water). A new awareness-raising campaign of the suppliers will be conducted. Performing environmental audits of suppliers: TotalEnergies promotes care for the environment in its supply chain. Starting in 2023, environmental audits of most impactful suppliers will be deployed, with a specific focus on responsible use of natural resources such as water. One of the criteria used for the assessment specifically deals with possible suppliers' impact on water resource areas. TotalEnergies' purchases do not include water intensive products, but supply chain water risks are assessed where relevant. For other suppliers, production locations are subject to investigations (indirect and possibly direct) to identify those production areas that may cause a risk. If such risk is deemed significant, further investigation is done to properly characterize it.

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#### Value chain stage

Other stages of the value chain

#### Coverage

Full

#### Risk assessment procedure

Water risks are assessed as part of an established enterprise risk management framework

#### Frequency of assessment

More than once a year

#### How far into the future are risks considered?

More than 6 years

#### Type of tools and methods used

Tools on the market  
International methodologies and standards  
Databases

#### Tools and methods used

EcoVadis  
Environmental Impact Assessment  
Life Cycle Assessment  
IPCC Climate Change Projections  
Other, please specify (Internal company methods, External consultants)

#### Contextual issues considered

Water availability at a basin/catchment level  
Water quality at a basin/catchment level  
Stakeholder conflicts concerning water resources at a basin/catchment level  
Implications of water on your key commodities/raw materials

Water regulatory frameworks  
Status of ecosystems and habitats  
Access to fully-functioning, safely managed WASH services for all employees

#### Stakeholders considered

Customers  
Employees  
Investors  
Local communities  
NGOs  
Regulators  
Suppliers  
Water utilities at a local level  
Other water users at the basin/catchment level

#### Comment

The Company complies with regulatory requirements to minimize risks associated with petroleum or chemical products marketed by TotalEnergies throughout their life cycle. Unless certain precautions are taken, some of the petroleum or chemical products marketed by TotalEnergies pose potential consumer health and safety risks. Respecting regulatory requirements is the main measure to limit risk throughout the life cycle of these products. TotalEnergies has also defined the minimum requirements to be observed to market its petroleum or chemical products worldwide with the goal of reducing potential risks to consumer health and the environment. These include the identification and assessment of the risks inherent to these products and their use, as well as providing information to consumers. The material safety datasheets that accompany the petroleum and chemical products marketed by TotalEnergies (available in at least one of the languages used in the relevant country), as well as product labels, are two key sources of information. The implementation of these requirements is monitored by teams of regulatory experts, toxicologists and ecotoxicologists within the Refining & Chemicals and Marketing & Services segments of the Company. The task of these teams is to ensure the preparation of safety documentation for the marketed petroleum and chemical products so that they correspond to the applications for which they are intended and to the applicable regulations. They therefore draw up the material safety datasheets and compliance certificates (contact with food, toys, pharmaceutical packaging, etc.) and ensure REACH registration if necessary. They also monitor scientific and regulatory developments and verify the rapid implementation of new datasheets and updates within Company entities. Governance of the process is rounded off within the business units or Subsidiaries of the RC and MS segments with the designation of a product manager who ensures compliance during the market release of his or her entity's petroleum and chemical products. The networks of product managers are coordinated by the Company's specialist teams either directly or via an intermediate regional level in the case of the Marketing & Services segment. The safety datasheets for oil and gas produced by the E&P and IGRP Subsidiaries are produced by the MS expertise center.

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#### W3.3b

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**(W3.3b) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.**

TotalEnergies implements a comprehensive risk management system. This system relies on an organization at Company level and in the business segments including the value chain, on a continuous process of identifying and analysing risks to determine those that could prevent the achievement of the goals as well as the analysis of management systems. TotalEnergies has defined procedures to assess its Subsidiaries and Suppliers, including in collaboration with independent bodies, which help identify and prevent risks of impacts on the environment. Staff training, particularly of managers, is the necessary complement to assist the Subsidiaries in the implementation of the TotalEnergies Action Principles.

#### OPERATIONS

The Executive Committee is responsible for identifying and analysing internal and external risks that could impact the achievement of the Company's objectives. Our activities are carried out in adherence to laws and Company's Code of Conduct within the framework of compliance and risk management procedures. Increasing scarcity of water resources may negatively affect our operations, high sea levels may harm coastal activities, and the multiplication of extreme weather events may damage facilities. Risk factors are continually assessed in the risk management and prevention plans.

The evaluation of water risks is core to the environmental impact assessment along all project assessment phases. Each assessment is followed by a stage-gate review and a decision process regarding the go/no-go of the project; so water risks are fully integrated into project assessments. Detailed studies relating to water management are established according to projects' scope and nature. This exercise is presented at the highest management level of the company and is thus embedded into the Company's strategy. It includes an evaluation of the costs associated with water-related CAPEX / OPEX, which allows an alignment of our strategy with the evolution of water-related risks. For operating sites, further to the assessment process, sites potentially exposed to water risk or with a significant impact on water resources conduct a Local Water Tool, including other relevant risks. Continuous monitoring of water risks is ensured through the company-wide reporting systems.

- New water targets across business units were set to reduce the freshwater withdrawal of the sites located in water stress area and limit the hydrocarbon content of water discharges.

- Site water stewardship plan and third-party certification

- Water-related performance: In order to identify its facilities exposed to the risk of water stress. We assess water resources risk levels using tools and studies carried out when necessary to guide the actions to be taken to mitigate the risks and to make optimal use of water resources on the sites.

#### SUPPLY CHAIN

With respect to Supply Chain (suppliers, water utilities...), a risk mapping related to procurement, by category of goods and services, was established in 2012 based on questionnaires completed by the managers of each procurement category. This risk mapping is reviewed every two years (update in 2022) by the Procurement Department. Qualification procedures for Suppliers of goods and services have been harmonized at Company level. An internal framework was published in 2018. The qualification process includes a review of human rights at work, environment and health and safety. A risk analysis is carried out for each Supplier, followed by a detailed assessment.

#### EMPLOYEES

We contribute to the well-being of our employees, whose skills and commitment are the primary factors driving our long-term performance. Accordingly, our aim is to be a model employer and a responsible operator, and for that purpose we draw on the principles at the heart of our business model and our Code of Conduct, which applies to all of our operations worldwide, especially safety, respect for each other and transparency in our social engagement. Our HSE department is also responsible at identifying the employee risk at the workplace. Moreover, it is factored into our compensation policy at every level.

#### OTHER VALUE CHAIN STAKEHOLDERS

We aim at contributing to the well-being of our partners and stakeholders. Safety is embedded in all our procedures to other stakeholders (customers, service users, NGOs, investors, local communities and civil society).

We have developed a Stakeholder Relationship Management (SRM+) methodology. Every subsidiary pays close attention to local issues by establishing its societal strategy, defining it in terms of targets and priority fields of action that take account of the regulatory framework, the context challenges and our voluntary commitments vis-à-vis civil society. Our strategy commits at avoiding, reducing and offsetting the impacts linked to the Company's activities and developing initiatives to create a positive impact on neighbouring local communities. We contribute to give an access to basic needs such as water.

## W4. Risks and opportunities

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### W4.1

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**(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?**

No

### W4.1a

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**(W4.1a) How does your organization define substantive financial or strategic impact on your business?**

To identify its facilities exposed to the risk of water stress, TotalEnergies records the withdrawal of water on all of its operated sites significant for this indicator and assesses these volumes on the basis of the current and future water stress indicators of the WRI Aqueduct tool. In 2021, 54% of our water withdrawals were in areas of water stress according to the WRI definition, areas where human demand for water exceeds 40% of resources available. According to CDP definition, these withdrawals represent 10% of the Company's water withdrawals. For priority sites defined as those located in water stress areas and withdrawing more than 500,000 m3 per year, TotalEnergies assesses water resources risk levels using the Local Water Tool (LWT) for Oil & Gas from the GEMI. This risk assessment establishes that the activities of the sites operated by the Company only expose the other users of the water to a relatively low risk of water shortage. The risk mainly concerns TotalEnergies sites for which the water supply could be cut in order to maintain access to water for priority users.

The CSR risk mapping for the Company's procurement of goods and services examined CSR risks relating to human rights and fundamental freedom as well as risks relating to the environment (depletion of natural resources; loss of biodiversity; climate change and greenhouse gases; waste and end-of-life management; air, water and soil pollution). This mapping is the result of methodological work carried out with external support from AFNOR. This risk analysis is carried out on an annual and perimeter-wide basis to analyse and prioritise sites exposed to water stress. Site assessment is provided by recognized measurement tools such as Local Water Tool and WRI Aqueduct.

In 2021, investments and operating costs on aqueous matters represented more than 25 million euros across the Company, including work and studies aimed at optimizing the treatment of effluents.

To define if there was substantive financial impact on our business, a calculation has been made for the largest priority sites to assess the financial impact of a potential closure. The direct operations are possibly affected by water scarcity and the permit granted by local authority could ask the site to reduce its water withdrawal in case of droughts. If a severe drought occurred, a site should stop its operation during several weeks or months. In the event of a very maximal drought of 3 months, the lack of income would be much less than 1% of the Company income: in 2021, the calculation made on the major 9 sites- in water stressed areas by 2030- shows that the financial impact for these 9 sites might be below 70 million € that is less than 1% of the Company Income of 16.75 billion €. Moreover, the likelihood (no materialization of risks in the past years) and low magnitude (less than 1% of the Company revenues would be affected in total, even with very conservative hypothesis) of the water- related risks for this site are not considered as having a « substantive impact ». Therefore, there is no site considered as exposed to substantial water risk in this year's response.

Any investment, sale or financial commitment is subject to different levels of decision-making based on financial thresholds.

Substantive financial impacts are defined as the amount of CAPEX involved in the project under analysis. Based on "financial significance" thresholds, the environmental risks will be assessed through different processes and undergo different levels of validation. The general rule is that decisions on water-related risks with minor CAPEX implications are taken at site level. Then, decisions with significant CAPEX implications are taken at branch level, while decisions with significant CAPEX implications will be discussed and approved by the Company's executive committee.

Different levels of water risk exposure have been defined for the projects reviewed by the Company's executive committee (and branch committees), ranging from low risk (no competition for the resource, water not usable for anything else by future generations or available in unlimited quantities) to very high risk (very large volumes of freshwater with usage conflicts in a watershed under severe water stress, in a country with low per capita income and very weak water supply infrastructures). Hence substantive change is defined based on activity-specific CAPEX thresholds, and water-related CAPEX are discussed through this process. Due to the nature of TotalEnergies' activities, this approach to water risks related changes is applied to TotalEnergies' direct operations, where most of water risks are concentrated. It is also applied to TotalEnergies' assets operated by third parties.

Each year, the Refining & Chemical branch carries out a long-term plan exercise, integrating the 5-year investment plan (2020-2025) for HSE aspects.

**W4.2b**

**(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?**

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Any investment, sale or financial commitment is subject to different levels of decision-making based on financial thresholds. These thresholds are segment-specific, but the general rule is that decisions on water-related risks with minor CAPEX implications are taken at site level. However, decisions with significant CAPEX implications will be discussed and approved by the Company's executive committee. Substantive financial impacts are defined as the amount of CAPEX involved in the particular project under analysis. Based on "financial significance" thresholds, the environmental risks will be assessed through different processes and undergo different levels of validation. Different levels of water risk exposure have been defined for the projects reviewed by the Company's executive committee (and branches), ranging from low risk (no competition for the resource, water not usable for anything else by future generations or available in unlimited quantities) to very high risk (very large volumes of freshwater with usage conflicts in a watershed under severe water stress, in a country with low per capita income and very weak water supply infrastructures). To define if there was substantive financial impact on our business, a calculation has been made for the largest priority sites to assess the financial impact of a potential closure. The direct operations are possibly affected by water scarcity and the permit granted by local authority could ask the site to reduce its water withdrawal in case of droughts. If a severe drought occurred, a site should stop its operation during several weeks or months. In the event of a very maximal drought of 3 months, the lack of income would be less than 1% of the Company income: in 2021, the calculation made on the major 9 sites- in water stressed areas by 2030- shows that the financial impact for these 9 sites might be below 70 million € that is much less than 1% of the Company Income of 16.75 billion €. Moreover, the likelihood (no materialization of risks in the past years) and low magnitude (less than 1% of the Company revenues would be affected in total, even with very conservative hypothesis) of the water- related risks for this site are not considered as having a « substantive impact ». Therefore, there is no site considered as exposed to substantial water risk in this year's response.

**W4.2c**



**(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?**

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	TotalEnergies operates along the entire oil and gas value chain, and therefore has integrated its raw material supply within its perimeter: water-risks mainly occur in its direct operations and not in its value chain. At present, very few supplies are linked to water issues while TotalEnergies operations are possibly directly causing risks to water masses like through possible oil spills or improper water discharges. The Company's Vigilance Plan covers the risks for the activities of suppliers of goods and services under Article L. 225-102-4 of the French Commercial Code. It sets out the rules and measures which, as part of risk management systems, enable TotalEnergies to identify and prevent actual or potential severe impacts related to its Activities and to mitigate their effects. It reflects the responsible purchasing principles applicable to relationships with Suppliers. The mapping work was carried out using TotalEnergies' existing risk management tools. Depending on the results of a risk analysis, a detailed assessment is performed once every five years. Managing Water in Our Supplies: Water pollution risks are among the parameters used by the Company to assess its suppliers. In particular, it identifies suppliers with production facilities located in Ramsar sites, which are of prime importance for recovery and natural water resources. Sourcing of chemical products must also focus on minimizing their toxicity, bioaccumulation and resistance to degradation in the environment in order to protect both the environment and human health. In 2021, the Company launched a study on the water use intensity of its most impactful suppliers to ensure that they respect best water use practices. It also shares its best practices guides with suppliers to help them in this process. The company activities' diversification has generated ties with new value chains (solar power, biofuels, batteries...) with inherent water issues. These are integrated in the company's risk strategy through value chain specific analysis. For instance, lifecycle analysis has been performed on polymers (leading to the development of polymers integrating recycled materials up to 50%). However, the related water risks (e.g. water footprint of solar panels) are currently not anticipated to have a substantive impact over the Company.

**W4.3**

**(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities, and some/all are being realized

**W4.3a**

**(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.**

**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Other, please specify (Improved water efficiency in operations)

**Company-specific description & strategy to realize opportunity**

The creation of OneTech on Sept. 2021 is the signal of a mobilization of human energy to meet TotalEnergies' new challenges. The new branch brings together the Company's technical and scientific expertise. 3,400 engineers, technicians, and researchers meet these new challenges. The Company's industrial success and technological advances have always been driven by the teams' pioneer spirit and performance-minded attitude, as well as by their technical and scientific competencies. OneTech builds on that foundation by leveraging the expertise of our employees who are key to TotalEnergies' successful transformation. TotalEnergies operates 18 R&D centers across the globe and has signed about 1,000 agreements with its partners. 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. In 2021, the Company filed more than 200 patent applications and with a R&D workforce of +4,000 employees, the Company invested 750 M€. this is strategic for the Company to investing in R&D. TotalEnergies conducts multiple R&D projects concerning water, such as the Sustainable Water Platform (SWAP), which aims to use renewable energy to treat and recycle various types of water including rainwater and wastewater. For example, it has also developed dedicated tools to monitor water, such as "Wat-R-use", which calculates a site's water footprint and the associated cost and recommends measures to limit water use, light reliable, easy to use tool for organic and metal measurements to be used by operators on site, shortening time from measure to result. R&D work on water treatment efficiency has been developed towards the reduction of water uptake, the reuse of water by providing quality compliant with the needs of industrial activities within the plant and for third party companies whenever possible. A specific focus was put on short term, heavy charge biological treatments to meet existing and expected regulatory requirements. R&D on water re-organized itself under the OT organization to provide support to the sites with the Technical Line "process" and its water specialists teams covering every branch throughout the company and to carry out research activities focused on mid and long terms questions related to water with a very distinct focus on the management of the resource.

**Estimated timeframe for realization**

More than 6 years

**Magnitude of potential financial impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

500000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact**

R&D offers the opportunity for a better water management to meet the goals set in the water company road map. Researchers received the mission to prepare the company for mid long term future situation, when the water situation is expected to significantly worsen probably requiring to implement higher standards implying ambitious technical modification within the industrial activities and enlarging the scope of water related activities to meet envisioned challenges the humanity will have to face. TotalEnergies' RC activities are the most water intensive (87% of withdrawals in 2021) and concentrate most of the effort to improve water efficiency. This is achieved through several water optimization actions including an accurate mass balance determination and substitutions of water sources of selected refinery alleviating the pressure on the global water market. Solutions, developed by the R&D Team are valorised in this process, through the implementation of previously developed tools such as Wat-R-use, and mass balances for pilot or development needs. The improvements for TotalEnergies, will be via reducing water risks, decreasing water costs and thus improving business resilience. The expected water uptake reduction of refineries and CCGT, combine with an increased energy efficiency of the corresponding water treatment will allow to save significant cost associated with the reduced amount of chemicals used for water treatment. The gain should result from the ability to use various sources of water and applying the appropriate treatment. SWAP, currently under development is a platform to test various water treatment applied to various water sources using renewable energy and fatal heat combining those to maximise the treatment yield. Based on the measures we have already installed at our O&G facilities in the past months with a

resulting company-wide water consumption saving of 10% and reduced water charges that could correspond to 31,000 megaliters, we have been able to estimate the full impact of water efficiency measures in savings of up to 5M€ on a period of 6 years. On a long-term perspective, the return on the R&D CAPEX is obtained after 12 years. That means that the impact will be double in term of water efficiency. The lifetime of our sites is generally over 25 years. The improvement performed through the R&D actions are also a factor of local acceptability. Improved local acceptability is priceless.

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#### Type of opportunity

Efficiency

#### Primary water-related opportunity

Other, please specify (Reduced impact of product use on water resources)

#### Company-specific description & strategy to realize opportunity

In Sept. 2021, 3,400 engineers, scientists and technicians were brought together in a new segment to enhance the Company's innovation capacity and ability to design and lead large integrated industrial projects by leveraging the teams' operational excellence. One Tech is home to all of headquarters' technical skills, all energies combined. In 2021, TotalEnergies outlined its capital allocation strategy for 2022-2025, a period during which it plans to make net investments of \$11.5 to \$14.1 billion a year. In 2021, investments in renewables and electricity represented 25% of total investments. Each material investment project is evaluated in relation to the Paris Agreement's objectives. 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. The strategic study of water sourcing and reuse opportunities in TotalEnergies' most consuming sites is done across all relevant business segments. The method has been designed over the last years, implemented in 2020 and 2021. In the MS segment, for example, TotalEnergies has developed its offering of environmentally optimized products. Indeed, the "TotalEnergies Ecosolutions" internal label only features on products for which a life-cycle analysis has demonstrated a reduced environmental impact (including water use reduction) compared to market standards. TotalEnergies explores the development of water recycling from car wash at carburant stations, to optimize its water efficiency, and ensure business continuity in case of droughts). In the cities, the water is used in stations and rainwater from roads go to municipality networks with current development of water recycling systems, to optimize water efficiency, and business continuity in case of droughts (Municipality water restrictions). 50% of our carwash automatic stations in Europe are fully equipped with a water recycling system. 500 carwash stations are now fitted with recycling/reuse units that allow to recycle 80% of the water withdrawals that is the maximum possible because 20% from freshwater withdrawals are mandatory considering some quality and technical criteria linked to the automatic car washing equipment. In addition, in some stations marketed as "washing station without water", only 2-3 water litres are necessary to wash a car. The implementation of this project is ongoing and will be pursued in the coming years.

#### Estimated timeframe for realization

More than 6 years

#### Magnitude of potential financial impact

Medium

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

7200000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact

OneTech: In 2021 the water team is organized within the R&D line sustainability with 13 water specialists and the technical line with 8 specialists, 3 of them with a dedicated focus on development. The company-wide budget for water R&D actions in 2021 amounts to €7.2M. It includes pilot programs, partnerships and research carried out externally or in-house. In addition, we have initiated a project to involve our 13 research water specialists and 8 development water specialists in the development of a water management solution. In 2021, we conducted several pilots on water treatment efficiency applied to support new development, encompassing biogas, hydrogen or hydrocarbon related waters. BIOMEM and SAMBIO biological water treatments were tested on various waters including groundwaters. New membranes modules were tested to optimize the recovery of microalgae to support the development of the La Mede Platform for third generation biofuel production. Regarding R&D on Water, we focus on our industrial performance and innovative processes and through 2021, TotalEnergies has pursued the development of some pilot projects concerning innovative water treatment technologies: • Biological water treatments with the aim of reducing toxicity to no-impact levels • Reduction of water toxicity by biological means: increasing the compactness of the installations aiming at their offshore installation • water preparation for hydrogen production • Water treatment related to biogas production and valorisation of co-products. Modelling of separations and processing processes. While using more efficient treatments, TotalEnergies has adopted an advanced position to reduce impact of product use. In addition, we strive to prevent any new more stringent regulations linked to water resources.

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#### Type of opportunity

Markets

#### Primary water-related opportunity

Stronger competitive advantage

#### Company-specific description & strategy to realize opportunity

As TotalEnergies evolves in extremely competitive markets, differentiating its products with an optimized environmental performance is a clear strategic business opportunity. TotalEnergies regularly performs new products' lifecycle assessments over several environmental indicators including water, which ensures these products and their supply chain resilience. The optimized water footprint of products and services provides with a competitive advantage. Part of the research activity on water management is used to develop intellectual property and build a capability for differentiation. Examples of ongoing project development in 2021: • On-site water quality groundwater dynamic characterization. The research will be proposed for commercial development to a third-party company. • Microsensors with Caltech and with a French start-up to improve the ground water and effluent quality characterization while very significantly reducing the cost and improving the quantity of available data. • Optimized solution for renewable energy-based water treatment allowing to minimize water uptake, minimize chemical consumption, use fatal energy otherwise lost and improve renewable energy efficiency. • Compactness of water treatment units leads to significant savings on CAPEX for the offshore installations while reducing consumption. • Technology to recover lithium from our waters including produced water from O&G activities and eventually from other sources. A pilot plant has been designed over 2021 to start operations in 2022. A success could be directly transformed in commercial operations eventually feeding the electricity storage activity of SAFT. • Based on the pilot rivers, mimicking the environment of a river, by providing better fitted data with actual environmental conditions for selected products commercialized. • In the MS segment, TotalEnergies has developed its offering of environmentally optimized products. Indeed, the "TotalEnergies Ecosolutions" internal label only features on products for which a life-cycle analysis has demonstrated a reduced environmental impact (including water use reduction) compared to market standards. TotalEnergies explores the development of water recycling from car wash at petrol stations, to optimize its water efficiency, and ensure business continuity in case of droughts (66 departments in France with water restrictions). TotalEnergies Carwash systems in France are fitted as much as possible with water recycling/reuse units.

#### Estimated timeframe for realization

More than 6 years

#### Magnitude of potential financial impact

Medium-high

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

7000000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact

In the IGRP division, in line with its strategy, TOTALENERGIES is expected to sustain its growth in renewables through projects to build solar and wind power plants, in electricity with the start-up of its gas-fired power plant in Landivisiau, France, along with industrial activities at Saft Company. Treatment of the water withdrawn thanks to the installation of inverse osmosis enables Saft Germany to be more efficient. They need less water for cleaning and can save 1200 m3 of water/year (for example: withdrawal of 2000 m3 in 2020). The water opportunities bring direct financial benefits and water efficiency and energy efficiency parameters should allow an increase of the GRP segment profit by a maximum of 1%. Thus, the magnitude of the impact would be 7M€. However, 1% is considered as a maximum since a lot of efforts in water reductions have already been made, reaching one of the best performance of the market. The margin for further improvement remains limited.

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#### Type of opportunity

Resilience

#### Primary water-related opportunity

Resilience to future regulatory changes

#### Company-specific description & strategy to realize opportunity

R&D program is devoted to water monitoring to ensure compliance with regulatory requirements. Based on strong competences on ecotoxicology and the use of biological indicators to describe the response of the aquatic environment to a stress, the R&D teams were able to support development programs. Works during 2021 were focused on effect-based tools, validation of toxkits to be used by operators to facilitate the control of the impact of the site activity upon its environment. Work related to EU regulatory documents regarding common waste waters (BREF CWW) has been carried out to ensure that the regulatory requirement evolution is fully understood and the method for ecotoxicity test implementation may be developed over the concerned sites. We aim at the development of easy to use, robust, reliable tools for measuring hydrocarbons and other chemicals in water for one tool and metals for another tool developed in collaboration with two separate third parties. Investments foreseen on water subjects represented 34 million euros for RC branch, including studies for resilience to future regulatory changes. A 6 M€ budget has been allocated on water issues and 24 water initiatives are still in progress with worldwide collaborations with selected universities and business partners facilitating progresses to both parties. The risks associated with water management are anticipated through the Long-Term Plan, a prospective exercise undertaken annually. It includes water production/injection/discharge analysis over the next 10 years. It analyses the CAPEX risks associated with water management, considering potential changes in the regulatory contexts. We need to be resilient and to anticipate the regulatory uncertainty for the industry. The measures improve the information we receive from regulators and update the process for serving under water industry legislation. We support the development of the aquatic impact measurement methodology as part of the BREF CWW published by the French Ministry of ecologic transition. As several chemical industrial actors, we have shared our water cases to make evolve a regulation framework for the local authorities' decrees related to water measurement. We developed a tool for the management of refinery effluents, in relation with changing regulatory demand to address the complexity of effluent components. In addition, we focus on a comparison impact tool for the assessment of aqueous effluents, part of the Water Framework Directive.

#### Estimated timeframe for realization

More than 6 years

#### Magnitude of potential financial impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

1000000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact

The water opportunities bring direct financial benefits and other kinds of benefits such policy influence, strengthening of reputation, and reduced environmental impact. We have an opportunity to lead water research and set industry best practices in this field. R&D offers the opportunity of performance improvements, via reducing water risks, decreasing water costs and thus improving business resilience. Thanks to a robust water-related risk management, we have identified that the Long-Term Plan (LTP) help anticipate the water-related risks and quantify the financials impacts of these risks (costs of water supply and their evolution, costs related to regulation evolution and CAPEX needed to meet compliance). We have assessed that the reduction of these expenses (CAPEX, fines, cost of water supply) could result in a financial positive impact avoided of approximately 15 million euros. The investments allow the refineries to improve continuously their performances, and to be compliant to new regulations. If not, the impact could be to stop the operations for these refineries. We estimate that the financial impact could be 1 M€ based on our experience. The components for the calculation of 1 M€ are essentially the taxes due to an overage threshold and the limitation of production to be able to control the effluents).

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## W6. Governance

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### W6.1

**(W6.1) Does your organization have a water policy?**

Yes, we have a documented water policy that is publicly available

W6.1a

**(W6.1a) Select the options that best describe the scope and content of your water policy.**

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	TotalEnergies' corporate water policy is publicly available on its web site and contained on different publications: 2021 URD, Sustainability and Climate 2022 Progress Report. TotalEnergies Water Policy is company-wide and does apply worldwide. Furthermore, TotalEnergies decided to join the UN CEO Water Mandate in 2021 and the partnership was effective in 2022. The CEO Water Mandate establishes five principles for managing water that the Company already follows with several action plans and a commitment to transparency. To reduce risk exposure, TotalEnergies has adopted a water stewardship approach. The water challenges identified are quality, quantity, governance, water-related ecosystems and biodiversity, access to safe water, sanitation, and hygiene, and extreme weather events. To respond to priority water challenges, TotalEnergies has defined SDGs targets. OVERVIEW OF THE POLICY CONTENT 1. Develop water risk management strategy: Our activities are carried out in adherence to laws and Company's Code of Conduct within the framework of compliance and risk management procedures. 2. Set water targets across business units: we have maintained the hydrocarbon content of water discharges below 30 mg/l for offshore sites and below 15 mg/l for onshore and coastal sites, with a new target to 1 mg/l for these sites for 2030. Moreover, a new target was established to reduce the freshwater withdrawal in water stress areas by 20% between 2021 and 2030. 3. Develop site water stewardship plan and obtain third-party certification: 92% of sites met the target for the quality of offshore discharges in 2021, whereas 80% of the onshore sites met the new target in 2021. 4. Manage water-related performance: To identify exposure to water stress risk, we record the water withdrawal and discharge on operated sites and assess volumes based on the current and future water stress indicators of the WRI Aqueduct tool. 5. The Company already practices and encourages the internal reuse of water. A guide has been developed to systematically conduct a pre-study to assess risks and opportunities such as costs and benefits. This policy is more generally based on the 5R rule, promoted by the WBCSD. 6. Encourage respect and mobilization of employees and suppliers, because with over 100,000 employees and a network of more than 100,000 suppliers, TOTALENERGIES can play an influential role across its value chain to protect human rights.

W6.2

**(W6.2) Is there board level oversight of water-related issues within your organization?**

Yes

W6.2a

**(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.**

Position of individual	Please explain
Board Chair	The Chairman of the Board and CEO is responsible for water 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 water issues. The Chairman also chairs the Company Performance Committee and has a direct look at the "One R&D program", in which the water management is included, with projects to improve water quality, to desalinate, or to decrease the volume of resource water used. In 2021, our CEO proposed to our shareholders to broadly support the new ambition through their vote at the Annual Shareholders' Meeting. One year later, TotalEnergies has published its Sustainability & Climate – 2022 Progress Report to show how its ambition is reflected in the deployment of its strategy and in its investment decisions, as well as to share the 2021 achievements, which demonstrate and stake out the path of the transformation to meet its 2030 objectives and its ambition of getting to net zero by 2050, together with society. Since its climate ambition is intrinsically linked to its sustainable development ambition (including water aspects), there is a discussion of our efforts to have a positive impact, initiated with our stakeholders, based on dialogue and transparency. In 2021, TotalEnergies' COMEX in alignment with the Board's strategy, decided to reorganize its Environment division, to reinforce the expertise, especially in water and biodiversity, and to highlight Environment into HSE department. Thus, the Environment Director is also the HSE director's deputy director. The new targets released in early 2022 have been discussed during all year 2021, with the objective of improvement of these targets during the process.
Director on board	The Board of Directors is a collegial body that determines the strategic orientation of the Company and supervises the implementation of its vision. Apart from 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 water-related issues are incorporated into the Company's strategy. The Lead Independent Director who ensures efficient governance of the company in accordance with current practice, is the Chairwoman of the Governance and Ethics Committee, member of the Strategic & CSR Committee and member of the Compensation Committee. The latter implies that she monitors the definition of sustainability criteria of the compensation schemes including water-related aspects. Each year the TotalEnergies Board of Directors reviews the relevance of its ambitions, as well as the appropriateness of its strategy and targets for reducing greenhouse gas emissions in the light of progress in international and national policies, new scenarios concerning decarbonization trajectories, advances in low carbon technologies, action taken by other sectors, including its customers, and other changes in society in terms of energy transition and sustainable development. The new targets in HC content and freshwater withdrawal, released

**W6.2b**

**(W6.2b) Provide further details on the board's oversight of water-related issues.**

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	Every year, the Board of Directors reviews the main issues related to climate change and environmental issues (including water issues) in the strategic outlook review of the Company's business segments, which are presented by the respective 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 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 yearly. All these points of information and decisions were made during programmed Board's meetings along the year. The Board yearly approves the release of water-related information. Since 2016, the Compensation Committee also 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. Significant CAPEX decisions related to water are for instance part of board's discussion (Water major investments at RC sector, R&D programs etc.). The integration of water 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). Through 2021, the Chief Sustainability Officer has submitted full information and documentation related to the compliance with the Grenelle II environmental law in France to the Board. This process ensures the Board's information and ability to take decision, based on the actions defined during CSR reviews. ExCom members meet, as a minimum, on a quarterly basis at HSE Business Reviews to discuss about HSE issues (including water). Further these meetings, feedback is done through ExCom to implement the decisions taken into the branches. In conclusion, the governance related to water issues is shared throughout the TotalEnergies management scheme (from Board to sites).

**W6.2d**

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	The Board of Directors defines TotalEnergies' strategic vision and supervises its implementation by taking into consideration the social and environmental challenges of its activities. The Governance and Ethics Committee conducts its work within the framework of a formal procedure to ensure that the directors' skills are complementary, and their backgrounds are diverse. In 2021, out of the 14 Directors of TotalEnergies board, 9 Directors have specific competencies on climate/sustainable development issues, i.e. 64% of the Board members. One Director comes from the mining industry. All of them have been trained on climate related issues. Following his appointment at the head of the Company in 2014, Patrick Pouyanné, A graduate of École Polytechnique and a Chief Engineer of France's Corps des Mines, is embarking on a major transformation of TotalEnergies. He has set TotalEnergies a new ambition in terms of sustainable development and of energy transition to carbon neutrality. Patrick Pouyanné has taken the initiative to organize strategic seminars and brings his strategic vision on the major global issues of sustainable development to numerous international forums such as the World Economic Forum or the Global Compact of the United Nations. Patrick Pouyanné previously held environment regulation responsibilities and was a member of the Water Agency Board in the Nord Pas de Calais region in France prior to being appointed Environment Advisor to the Prime Minister in France. During 2021, the Board observed that the Chairman and Chief Executive Officer fully achieved the following: In the context of the Company's transformation, the implementation of the OneTech project, bringing together in a single multi-technical entity some 3,000 of the Company's employees, to pool the technical and R&D departments of the various branches. This decision led in particular to the creation of a centralized technical expert team on water. The skills of the Directors will be maintained through a continuing training program relating for directors approved in 2021 and rolled out in 2022. It will include the Climate Fresco (a scientific, collaborative and creative workshop designed to raise awareness of climate change), as well as various modules: Energy, Climate Change and Environmental Risks; Energy and Climate; Climate Change and Financial Risks and Opportunities.	<Not Applicable>	<Not Applicable>

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

**Name of the position(s) and/or committee(s)**

Chief Executive Officer (CEO)

**Responsibility**

Assessing future trends in water demand  
 Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

More frequently than quarterly

**Please explain**

The CEO is Chairman and Chief Executive Officer of TotalEnergies. The Chairman represents the Board of Directors and organizes and oversees the work of the Board of Directors and ensures that the Company's corporate bodies operate effectively and in compliance with good governance principles. The CEO chairs the monthly Company Performance Committee that deals with HSE including water-related issues like major spills. During the URD review, the CEO analyses the response to CDP Water Security questionnaire and orientates the water strategy for a better performance. He also approves the Sustainability & Climate Progress Report, released in 2022, where the engagement for water related issues has been described, through the commitment to the CEO Water Mandate. A new strategic roadmap for environment was initiated in 2020 and discussed at several COMEX meetings in 2021. This work enables the COMEX to release a new set of new water targets (CEO Water Mandate...).

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	At TotalEnergies, there is a Human Resources rule regarding the incentives of water-related issues: For all managers, a remuneration package is defined at a certain level of management responsibility. The individual performance compensation is linked to compensate individual performance (quantitative and qualitative attainment of previously set targets), managerial practices, if applicable, and the employee's contribution to collective performance evaluated on the basis of HSE targets set for each business segment, which represents up to 10% of the variable portion. In 2021, 90.4% of the Company's entities (WHRS scope) included HSE criteria in the variable compensation.

W6.4a

**(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?**

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in efficiency - supply chain Improvements in efficiency - product-use Improvements in waste water quality - direct operations	The compensation awarded to the Chairman and Chief Executive Officer is indexed to key performance indicators used to measure the success of the Company's strategy. For 2021, the variable portion of the compensation allocated by virtue of his duties as Chairman and Chief Executive Officer has been set at €2,506,000. This corresponds to 179% (of a maximum of 180%) of his base salary, considering the results of the economic parameters and the evaluation of the personal contribution of the Chairman and Chief Executive Officer. These targets include 15% related to CSR objectives including water issues. At its meeting in March 2021, the Board of Directors decided to adapt the parameters for granting the variable portion in order to take into account, in the personal contribution, the Corporation's transformation strategy towards carbon neutrality as well as its societal responsibility in general and in particular diversity. Two new criteria have therefore been introduced to assess the personal contribution, accounting for 25% of his variable portion: overseeing the transformation strategy towards carbon neutrality and profitable growth in Renewables & Electricity. CSR performance is the third qualitative criterion of the personal contribution. It is assessed notably by the integration of climate issues in the Company's strategy, the Company's reputation in the domain of corporate social responsibility as well as the policy concerning all aspects of diversity.
Non-monetary reward	Other, please specify (Employees)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in efficiency - product-use Improvements in waste water quality - direct operations Improvements in waste water quality - product-use Implementation of employee awareness campaign or training program Implementation of water-related community project	The compensation structure for the Company's employees is based on an individual variable compensation starting at a certain level of responsibility. This is intended to compensate individual performance, managerial practices, if applicable, and the employee's contribution to collective performance evaluated based on HSE targets set for each business segment, which represents up to 10% of the variable portion. Water performance is evaluated each year and the individual monetary reward will depend if applicable on direct performance. Moreover, a collective monetary reward exists and relies on multiple HSE criteria which represents up to 10% of the variable portion. In 2021, 90.4% of the Company's entities (WHRS scope) included HSE criteria in the variable compensation. Worldwide employee community program called Action!, lets volunteer employees devote up to three workdays a year to community projects that fall within the scope of the TotalEnergies Foundation program. For the Foundation, in 2021, the program had been implemented in 93 countries, and 17,400 inclusive projects had been carried out since the launch.

**W6.5**

**(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?**

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations

**W6.5a**

**(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?**

TotalEnergies has adopted a **lobbying ethics charter** widely distributed available online. Aware of its responsibility in all the countries in which it operates, we base our lobbying activities on the values defined in our Code of Conduct. We apply a zero- tolerance policy to the Lobbying Ethics charter which implies possible sanctions up to dismissal in accordance with applicable law. We comply with all national and international laws and standards in all its host countries. By lobbying, it means all activities conducted directly or indirectly with public officials and authorities and more generally with all stakeholders concerned by the company's activities, to express its challenges, explain its issues and promote its interests. We have published our **Advocacy Directive** in Dec. 2021.

Our Ethics Committee reports directly to the Chairman and CEO. It oversees 100+ Ethics Officers, for reporting information or addressing situations or behaviour that violate the Code of Conduct ([ethics@totalenergies.com](mailto:ethics@totalenergies.com)). In 2021, 140 reports had been processed in a confidential manner. Corrective measures are applied whenever necessary.

We are members of 929 associations/organisations and we have published a list of its affiliations since 2016. TotalEnergies demonstrates its involvement in public affairs and business dialogue initiatives to progress on main topics of common interest including water security. In 2021, TotalEnergies has continued to play an active role within partnerships.

## W6.6

### (W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

DEU\_21\_VA.pdf

Sustainability\_Climate\_2022\_Progress\_Report\_EN\_0.pdf

## W7. Business strategy

### W7.1

#### (W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	21-30	TotalEnergies anticipates risks and opportunities in its Long-Term Plan exercise (LTP 2021-2030), including water-related over 10 years. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX: evolution of the Hydrocarbon content of discharged water and retrofit on projects, water regulation evolution and retrofit on water CAPEX on projects, Freshwater withdrawals in water stress area and prioritization of water technical solutions for use and discharge. In LTP, alternatives to water withdrawal sources and process water reuse and desalination are being considered to reach the new water targets by 2030. The Management ensures that objectives are defined at all levels for operations, reporting and compliance. Water experts are mobilized among the Company through sharing of good practices, support functions, water networks, PERL laboratory and technical assistance and the technical experts from ONeTech. They all regularly follow-up the R&D water management program. In 2021, the Water Database was replaced by a full Water Methodology Environment regrouping all expertise gained on more efficient water production and distribution processes. Innovative measures are systematically deployed such as preliminary technical and commercial studies and LCA, for any new project. A current study is in process for the Biogas LCA to identify any potential impact on environmental aspects.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	21-30	TotalEnergies anticipates risks and opportunities in its Long-Term Plan exercise (LTP), including water-related over a horizon of 10 years and the next LTP will start in 2021 until 2030. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX. At the RC segment, CAPEX is forecasted to reduce freshwater withdrawals in water stressed areas. The action plan was defined in 2021 to comply with the objective of reducing freshwater withdrawals of 20% in water stress areas. In September 2021, TotalEnergies signed major agreements with the Iraqi authorities for the sustainable development of natural resources in the Basra region: The construction of a large-scale seawater treatment unit to increase water injection capacities in southern Iraq fields without increasing water withdrawals as the country is currently facing a water-stress situation. This water injection is required to maintain pressure in several fields and as such will help optimizing the production of the natural resources in the Basra region.
Financial planning	Yes, water-related issues are integrated	21-30	TotalEnergies anticipates risks and opportunities in its Long-Term Plan exercise (LTP), including water-related over a horizon of 10 years and the next LTP will start in 2021 until 2030. On a longer-term perspective (25-30 years), installation designs integrate stress resilience to water issues, whether stress elements pertain to CAPEX or OPEX. At the RC segment, CAPEX is forecasted to reduce fresh water withdrawals in water stressed areas. In Abu Dhabi, the Taweelah A1 gas-fired power plant, owned by the Gulf TotalEnergies Tractebel Power Company (TotalEnergies, 20%), combines electricity generation and seawater desalination. The plant has a gross electricity generation capacity of 1.6 GW and a seawater desalination capacity of 385,000 m <sup>3</sup> per day. The plant's production is sold to Emirati Water and Electricity Company (EWEC) under a long-term agreement.

### W7.2

#### (W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

##### Row 1

##### Water-related CAPEX (+/- % change)

63

##### Anticipated forward trend for CAPEX (+/- % change)

0

##### Water-related OPEX (+/- % change)

0

##### Anticipated forward trend for OPEX (+/- % change)

0

##### Please explain

Each year, RC does a Long-Term Planning exercise, including HSE investments for the next 5 years. In 2021, water investments have increased to 52 M€, including the projects to achieve the target of freshwater reduction. In 2021, the R&D One-Tech focusing on mid-long-term water resource management has transferred mature projects to the technical line carrying out the short-term assistance and development within the sites. It was accompanied by the creation of a water team and a reduction of the water budget to €7.2M including pilots such as one of €1.3M for the recovery of lithium from the water produced. EP: withdrawal from third party sources is about the same and the water OPEX is stable. Water-related operational expenditures are linked to the volumes of water sourced from freshwater providers. No significant increase for the coming years. Water CAPEX and future OPEX could increase due to new objectives for discharge below 1 mg/l oil in water in onshore/coastal discharges.

### W7.3



**(W7.3) Does your organization use scenario analysis to inform its business strategy?**

	Use of scenario analysis	Comment
Row 1	Yes	The IEA's 1.5 °C scenario is aiming for carbon neutrality by 2050. TotalEnergies' progress in 2021 Scope 1+2 emissions decreased from 41.5 Mt in 2020 to 37.0 Mt thanks to 120 emissions-reduction initiatives carried out the operations and the portfolio. TotalEnergies wants to become one of the top five worldwide producers of renewable electricity (solar and wind) to get to net zero by 2050. TotalEnergies' CCS projects are helping to reduce its own emissions, but via additional available capacity, they will also help it develop services for transporting and storing carbon on behalf of industrial customers intent on reducing their emissions. The Company's goal is to provide its customers with storage capacity of more than 10 Mt CO2/year by 2030, with the ambition of lifting capacity to more than 50 Mt CO2/year by 2050. The scenarios from IPCC are taken into account into the future water stress into Aqueduct water Atlas. TotalEnergies assesses its sites according to the 2030 scenarios.

**W7.3a**

**(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.**

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related Socioeconomic Land-use change	Water is the most direct and vulnerable sector influenced by climate change. Urbanization is also exacerbating water scarcity. Droughts and water scarcity are no longer rare or extreme events. Climate change is expected to make the problem worse. The world faces shortages in water sources because distribution of water resources in many arid regions create water scarcity. Only 10% of the total renewable water resources are currently used by people, and 80% of the world's population is exposed to high levels of threat to water security. We need to strengthen the resilience of its ecosystems and use water more efficiently to minimise the impacts of water stress on people and the environment. The IEA's 1.5 °C scenario is aiming for carbon neutrality by 2050. Oil and gas companies and governments worldwide are increasingly looking to hydrogen as their pathway to decarbonization. Diversion of renewably generated electricity to produce green hydrogen is a concern. To develop a "green hydrogen economy" where emissions-free hydrogen is widely used in daily life, we use electrochemical water electrolysis to generate hydrogen from electricity and water. As renewable electricity prices drop and improvements in electrolyzer efficiency are achieved, the question is to assess if there is enough water to support a hydrogen economy. However, the potential within specific countries or regions depends on the land available. In water-scarce regions, desalination could be used. Even in regions far from the coastline, water transport could be considered, which will increase the cost of water supply. Climate change can make it more difficult for communities to provide drinking water and wastewater services, protect water quality, and maintain healthy aquatic environments. The Adaptation Strategies offer possible ways to address anticipated climate risks to water management. More than 70% of Earth's surface is covered in water yet lack access to clean water is one of the most pressing challenges of our time. Poor water quality affects various aspects of society, from the spread of disease to crop growth to infant mortality. In some regions of the world, lack of sanitation infrastructure, water treatment facilities, or sanitary latrines lead to dire clean water crises.	TotalEnergies assesses its portfolio's resilience, based on relevant scenarios and sensitivity tests. TotalEnergies is building a portfolio of combined-cycle gas turbines (CCGT) in Europe as part of its strategy to create an integrated gas and electricity value chain in Europe. Hydrogen is an energy carrier between primary energy source and final application that does not generate any CO2 during its lifecycle if it was produced in a decarbonized process. Growing generation of decarbonized electricity is creating opportunities to produce green hydrogen via electrolysis of water using decarbonized electricity. TotalEnergies is working with its suppliers and partners to decarbonize the hydrogen used in its European refineries by 2030. The Company aims to pioneer mass production of clean and low carbon hydrogen to serve demand for hydrogen fuel as soon as the market takes off. Water is used for electrolysis is perceived as one of the critical parameters for green hydrogen production. The regions where this constraint restricts the hydrogen potential the most are Saudi Arabia; the Middle East; Morocco; and the rest of Asia. TotalEnergies is deeply engaged in the process of European Water Framework Directive fitness check and participates directly and indirectly through CONCAWE to the Public Consultation issued by the EU Commission. TotalEnergies' sites or affiliates conduct water education and awareness campaigns in partnership with local stakeholders.	TotalEnergies has set a new target to reduce the freshwater withdrawal in water stress area by 20% between 2021 and 2030. We implement water risk management actions: -monitor withdrawals to identify priority sensitive sites and risk assessment. -improve water management by adapting the priority sites' environmental management system. Seawater can be purified through desalination processes before being used as an electrolysis feedstock. In Abu Dhabi, a gas-fired power plant combines electricity generation and seawater desalination (capacity of 385,000 m³/day). Another construction project is a large-scale seawater treatment unit in Iraq without increasing water withdrawals as the country is currently facing a water-stress situation. TotalEnergies is investing in a network of hydrogen supply stations for road transportation. The Company aims to operate up to 150 truck-oriented hydrogen stations in Europe by 2030. TotalEnergies, with Engie, is developing a green hydrogen project at the La Mède biorefinery. The project will be powered by solar and wind farms. TotalEnergies social performance is reflected in the quality and durability of its relations and by its ability to avoid, reduce and compensate its impacts on communities beyond contractual obligations. In African countries we have fostered the deployment of a community supply system for running water from wells drilled by the Company (includes a water reservoir, treatment facility and six public distribution points).

**W7.4**

**(W7.4) Does your company use an internal price on water?**

Row 1

**Does your company use an internal price on water?**

Yes

**Please explain**

Putting a water price gives an incentive to shift faster to reduce water consumption. Over the long term, it offers a way to channel investment to research into low-water technologies and storage. TotalEnergies defines for each project the CAPEX according to the treatments for the regulatory discharges. The OPEX are evaluated to assess globally the cost of the water treatment. The freshwater cost will depend essentially on the water quality, it is estimated according to the local providers. The European cost of 1 m3 of freshwater varies between a few centimes of euro and 1 euro. We are chair of the Task Force in IPIECA and we have studied natural capital valuation, which involves pricing water resources based on local scarcity parameters. All water projects under development are based on a local water approach (local prices + fees + taxes linked to the context and project). This information is used when calculating OPEX & CAPEX for commercial development and maintenance operations.

**W7.5**

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	<p>TOTALENERGIES WASH At the MS segment, low water impact services are proposed at the carburant stations where TotalEnergies Wash services are proposed. Wash is the largest car wash network in France with more than 1100 car wash centers. Present throughout France, Wash washing centers offer complete and quality washing offers for optimal cleaning of cars, utility and two wheels: Washing multiprogram rollers, High-pressure washing, Maintenance and care area with vacuum blowers, perfumers and carpet washers and Professional hand wash. More than 17 million washes are sold in Wash washing centers every year. For several years, Wash has been committed to a sustainable approach and has been pursuing numerous projects to limit its impact on the environment. At Wash, we do our utmost to limit the environmental footprint of our centers: biodegradable products, water control, recycling, greener energy... Our washing solutions combine quality and control of water consumption. To go even further, our Wash centers are gradually equipping themselves with water recycling, allowing even more virtuous water consumption. HYDROGEN The energy transition depends on the development of new molecules (biofuels and biogas, clean hydrogen, and synthetic fuels combining hydrogen and carbon) that TotalEnergies has the core skills to produce. It is expanding in these markets with a focus on circular resource management. On the other hand, the energy transition involves electrifying energy uses, which requires a massive increase in the supply of green electrons. 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. Its goal is to rank among the top five global producers of solar- and wind-generated electricity by 2030. Hydrogen is an energy carrier between primary energy source and final application that does not generate any CO2 during its lifecycle if produced in a decarbonized process. Growing generation of decarbonized electricity is creating opportunities to produce green hydrogen from water withdrawn from the sea, via electrolysis of water using decarbonized electricity. In addition, the development of carbon storage is paving the way for the development of blue hydrogen using natural gas. ECOSOLUTIONS To meet environmental challenges, TotalEnergies is taking strategic steps to save energy and reduce the environmental footprint of our activities and products by developing new products and new types of energy that dovetail with our traditional oil business. The Ecosolutions by TotalEnergies program is designed to provide customers/users with products and services that, for an equivalent outcome, deliver superior environmental or health performance compared with the market standard. Bringing together different businesses and skills within the Company, from research and sustainable development to strategy and marketing, the program serves as an improvement driver, enabling TotalEnergies to continuously expand our line-up of eco-efficient solutions. The program also fosters dialogue with all stakeholders, including direct customers, sold-to parties and our partners. Ecosolutions label by TotalEnergies promotes internal eco-efficient products, services and solutions. By relying on them our customers can demonstrate their efforts in reducing their environmental and health footprint. The highlighted performances are based on Life Cycle Assessment (LCA). The candidate of Ecosolutions label by TotalEnergies is compared to its market reference, throughout its life cycle (right from raw material extraction to end of life) on its key Environmental and health impacts (CO2 emissions reduction, Water, Energy and Non-Renewable resources savings, Impacts on Health and on the Ecosystem). The objective of this multicriteria approach is to ensure that there is no significant impact transfer, that an environmental benefit doesn't trigger a significant deterioration of another environmental or health impact.</p>	<Not Applicable>	<p>TOTALENERGIES WASH Water recycling systems are progressively deployed to optimize water efficiency and business continuity in case of droughts. 50% of our carwash automatic stations in Europe are equipped with water recycling system. In 2021, 500 carwash stations were fitted with recycling/reuse units that allow to recycle 80% of the water withdrawals. In our Wash centers, 100% of the washing water used is treated. HYDROGEN We are working with suppliers and partners to decarbonize all the hydrogen used in our European refineries by 2030, a reduction in CO2 emissions of 3 Mt per year. The Company's ambition is to pioneer mass production of clean and low carbon hydrogen. ECOSOLUTIONS TotalEnergies created the label Ecosolutions by TotalEnergies promoting internal eco-efficient products, services and solutions. The highlighted performances are based on Life Cycle Assessment (LCA). As of 2021, 104 products, services, solutions awarded by the label Ecosolutions by TotalEnergies.</p>

W8. Targets

W8.1

**(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.**

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Activity level specific targets and/or goals Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	The Company places the environment at the heart of its ambition of being a responsible company with a goal to improve the environmental performance of the facilities and products. In relation with its Safety Health Environment Quality charter, TotalEnergies considers respect for the environment to be a priority. TotalEnergies strives to control its energy consumption, its emissions in natural environments (water, air, soil), its residual waste production, its use of natural resources and its impact on biodiversity. Targets are validated by the Executive Committee, to ensure alignment with the industry's best practices. To this end, the HSE division and the HSE departments within the Company's entities seek to ensure both applicable local regulations and internal requirements resulting from the Safety Health Environment Quality Charter and the Company's additional commitments are respected. The Company was one of the first in the industry to publish measurable improvement targets in these areas. The Company's HSE audit protocol is based on the One MAESTRO framework. The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 79 sites were compliant in 2021. In addition to this requirement, at year-end 2021, a total of 279 sites operated by the Company were ISO14001 certified. In 2021, 22 new sites received ISO14001 certification. To sustain a circular economy including water issues, TotalEnergies is a founding member of the Alliance to End Plastic Waste, launched in 2019, which now brings together 80 companies and partners in the plastics and consumer goods value chain who are committed to ending plastic waste in the environment. Over five years, the Alliance's objective is to finance 14 projects, for the development of solutions for the reduction and treatment (reuse, recycling and recovery) of used plastics, particularly in the oceans. In 18 months, the Alliance has made great strides: 14 projects across cities in Ghana, India, Indonesia, the Philippines, Thailand and Vietnam. A project aiming to generate lithium resources from production water using the concepts developed by the circular economy at our petroleum production waters and all along the value chain has been launched. The project will be extended to saline aquifer waters eventually extracted to manage pressure under CO2 injection, and to other metals of interest. A mapping of the resource has been initiated. A sufficient lithium concentration in deposits could provide an economic return and in co- construction with partners who distribute innovative technologies. The validation is in progress and results will be analysed soon.

**W8.1a**

**(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.**

**Target reference number**

Target 1

**Category of target**

Water withdrawals

**Level**

Company-wide

**Primary motivation**

Increase freshwater availability for users/natural environment within the basin

**Description of target**

TotalEnergies has set a new target for the freshwater resource protection for 2030. TotalEnergies aims to reduce the freshwater withdrawal of the sites located in water stress area by 20% between 2021 and 2030.

**Quantitative metric**

% reduction per business unit

**Baseline year**

2020

**Start year**

2021

**Target year**

2030

**% of target achieved**

4

**Please explain**

In 2021, we recorded a 4% reduction of sites' freshwater withdrawal compared to 2020 and we established preparation of reduction plans in water stress area. An action plan has been established for each site that addresses both operational excellence and specific projects.

**Target reference number**

Target 2

**Category of target**

Water pollution reduction

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

TotalEnergies has set a new target for the limit the hydrocarbon content of water discharges to below 30 mg/l for 100% of offshore sites.

**Quantitative metric**

% reduction in concentration of pollutants

**Baseline year**

2021

**Start year**

2021

**Target year**

2030

**% of target achieved**

92

**Please explain**

In 2021, 92% of the Company's oil sites met the target for the quality of offshore discharges.

---

**Target reference number**

Target 3

**Category of target**

Water pollution reduction

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

TotalEnergies has set a new target for the limit the hydrocarbon content of water discharges to below 1 mg/l for 100% of onshore and coastal sites by 2030

**Quantitative metric**

% reduction in concentration of pollutants

**Baseline year**

2021

**Start year**

2021

**Target year**

2030

**% of target achieved**

80

**Please explain**

In 2021, 80% of the Company's oil sites met the target for the quality of offshore discharges.

---

**Target reference number**

Target 4

**Category of target**

Water pollution reduction

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

An oil spill scenario is deemed "important" when its consequences are at a minimum on a small scale and have a limited impact on the environment (approximately several hundred meters of shores impacted or several tons of hydrocarbons involved). Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities

**Quantitative metric**

% proportion of wastewater that is safely treated

**Baseline year**

2021

**Start year**

2021

**Target year**

2030

**% of target achieved**

97

**Please explain**

For the sites operated by the Company exposed to the risk of accidental spills that reach the surface water, wastewater must be safely treated. These requirements demand that the oil spill contingency plans be regularly reviewed and tested in exercises. These plans are specific to each site and are adapted to their structure, activities and environment while complying with Company recommendations. The sites can call on in-house human and material resources (Fast Oil Spill Team, FOST) and benefit from assistance agreements with the main third-party organizations specialized in the management of hydrocarbon spills. In 2021, there were 128 sites whose risk analysis identified at least one risk of major accidental pollution to surface water and 100% of them have an operational oil spill contingency plan. In 2019, 85% of sites have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities and in 2021, 97% have achieved this target.

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**Target reference number**

Target 6

**Category of target**

Water pollution reduction

**Level**

Site/facility

**Primary motivation**

Risk mitigation

**Description of target**

As a general requirement, the One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment must be ISO14001 certified within two years of start-up of operations or acquisition. Internal requirements also stipulate that all projects submitted to the Company's Risk Committee must be assessed and reviewed for risk and potential impact, particularly environmental, before the final investment decision is made.

**Quantitative metric**

Other, please specify (% of sites having implemented a water management system)

**Baseline year**

2021

**Start year**

2021

**Target year**

2030

**% of target achieved**

100

**Please explain**

In 2021, a total of 279 sites operated by the Company were ISO14001 certified. In 2021, 22 new sites received ISO14001 certification. The objective is to maintain 100% of certified important sites. In addition, the deployment of the ISO 14001 sites with a biodiversity action plan is underway. Two diagnostics were carried out in 2021 (the Pont-sur-Sambre plant in France and the marine exploration and production facilities in the Republic of the Congo). Three diagnostics are under finalisation (the Donges and Grandpuits refineries and the Bayet plant in France).

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**Target reference number**

Target 5

**Category of target**

Watershed remediation and habitat restoration, ecosystem preservation

**Level**

Company-wide

**Primary motivation**

Reduced environmental impact

**Description of target**

In 2020, the Company has performed a new ambition for biodiversity protection. There are several commitments: • Not to conduct any exploration activity in oil fields under sea ice in the Arctic • For new projects, a BAP (Biodiversity Action Plan) is developed for any new site located in an area of interest for biodiversity • For existing sites, A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant site. A biodiversity action plan will be defined by 2025 at the latest and deployed by 2030 at the latest on every existing environmentally significant site EP production sites, refineries, petrochemicals sites, gas-fired power stations) which is ISO14001 certified. TotalEnergies will report on its deployment to the various stakeholders.

**Quantitative metric**

Total number of watershed remediation and habitat restoration, ecosystem preservation activities

**Baseline year**

2021

**Start year**

2021

**Target year**

2030

**% of target achieved**

11.5

**Please explain**

about 9 biodiversity surveys have been carried out until now (out of 79 action plans to be deployed by 2030).

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W8.1b

**(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.**

**Goal**

Engagement with public policy makers to advance sustainable water management and policies

**Level**

Company-wide

**Motivation**

Water stewardship

**Description of goal**

TotalEnergies adopted this goal part of its commitment to be proactive on its management of natural resources, in line with its aim to become the most responsible energy major. To reinforce this goal, TotalEnergies joined the UN Global Compact's CEO Water Mandate in early 2022, after discussions taken place during 2021. The CEO Water Mandate establishes five principles for the management of water resources that the Company follow through several committed actions, accompanied by a system of transparency. 1. Managing Water in Our Operations 2. Managing Water in Our Supplies 3. Participating in Collective Water Management Initiatives 4. Supporting Public Water Resource Policies 5. Engaging with Local Communities This goal is monitored at company-level as it is a commitment for all TotalEnergies' activities. The participation and completion of collaborative initiatives linked to CEO WATER MANDATE will be measured and assessed.

**Baseline year**

2021

**Start year**

2021

**End year**

2030

**Progress**

The success is measured through the participation and completion of collaborative initiatives linked to CEO WATER MANDATE. TotalEnergies engages with public policy makers to ensure the alignment of its activities with current and future expectations from them. The sustainability & Climate Progress Report issued in March 2022 gives the actions taken place in the previous year with a focus in 2021. The Company is aware of the issues surrounding this resource and has committed to contributing to the Sustainable Development Goals (SDGs) since 2016. We have therefore taken steps to manage the volume of water withdrawn and the quality of water discharged.

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**Goal**

Watershed remediation and habitat restoration, ecosystem preservation

**Level**

Company-wide

**Motivation**

Risk mitigation

**Description of goal**

TotalEnergies has an internal goal to reduce its risk within the water stress areas, and thus decided to reduce 20% of its freshwater withdrawal in these areas. This goal ensures the resilience of TotalEnergies' business model. After an analysis, these objectives were set in end 2021 at corporate level as part of the environmental roadmap and apply to the sites concerned by water stressed areas. Thus this goal is managed and reviewed annually at Company level, but also the sites identified have launched the studies to reach the goal and will monitor the results at site level.

**Baseline year**

2021

**Start year**

2021

**End year**

2030

**Progress**

The progress towards this goal is measured through the percentage of reduction of freshwater withdrawal in water stressed areas. In 2021, 9 sites have been identified into this goal, from RC and i-GRP divisions. For these sites, a reduction of 4% has been made between 2020 and 2021. the results were disclosed in TotalEnergies' 2021 Universal Registration Document (as indicated in the present CDP Water Security questionnaire).

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**W9. Verification**

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**W9.1**

**(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?**

Yes

DEU\_21\_VA.pdf

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**W9.1a**

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	Selection of some environmental indicators audited: • Operated sites important for the environment ISO 14001 certified • Sites whose risk analysis identified at least one risk of major accidental pollution to surface water • % of those sites with an operational oil spill contingency plan • % of those sites that have performed an oil spill response exercise • Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage • Hydrocarbon content of offshore water discharges • Hydrocarbon content of onshore water discharges • % of sites that meet the target for the quality of offshore discharges • % of sites that meet the target for the quality of onshore discharges • Fresh water withdrawals excluding cooling water • Fresh water consumption • Non-hazardous and hazardous waste • Non-hazardous and hazardous waste valorized • % of waste processed per treatment process (valorization, landfill, other)	ISAE 3000	Verification has been performed by EY, an independent third-party entity, accredited by the COFRAC. The report is presented in chapter 5 of Total's 2021 Universal Registration Document (p. 360). The work was performed in accordance with the articles A. 225-1 of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors (CNCC) and with ISAE 3000. The verification work mobilized the skills of ten people and took place between September 2021 and March 2022 on a total duration of intervention of about thirty weeks. This work was carried out on a selection of contributing entities and covers between 3% and 17% of the consolidated data relating to the key performance indicators and outcomes selected for these tests (11% of freshwater withdrawals, 10% of treated waste). Based on their professional judgement, it is sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. In 2021, 41 HSE audits were conducted. These subsidiaries also undertake self-assessments at least every two years. The Company's HSE audit protocol is based on the One MAESTRO framework. The One MAESTRO reference framework states that the environmental management systems of the sites operated by the Company that are important for the environment must be ISO14001 certified within two years of start-up of operations or acquisition: 100% of these 79 sites were compliant in 2021. In addition to this requirement, at year-end 2021, a total of 279 sites operated by the Company were ISO14001 certified. In 2021, 22 new sites received ISO14001 certification.

W10. Sign off

W-FI

(W-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.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	CHIEF EXECUTIVE OFFICER and CHAIRMAN of the BORD	Board chair

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Please select	

SW2.1

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(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

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(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

SW3.1

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(SW3.1) Provide any available water intensity values for your organization's products or services.

Submit your response

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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

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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