

# More Energy, Less Emissions

Sustainability & Climate 2024 Progress Report



# Our Approach to Sustainable Development



Energy is at the heart of the most daunting challenges of the 21<sup>st</sup> century, defined in the U.N.'s 2030 Agenda in the form of its 17 Sustainable Development Goals (SDGs).

As part of its transition strategy to achieve its 2050 Net Zero Ambition, together with society, the Company affirms its purpose: to provide as many people as possible with energy that is more reliable, more affordable and more sustainable, and has placed Sustainability at the heart of its strategy, its projects and its operations.

Our commitment is based on the values defined in our Code of Conduct and our approach to sustainability is structured around 4 axes:

- climate and sustainable energy,
- caring for the environment,
- acting for the well-being of employees,
- having a positive impact for stakeholders.

To help our collective corporate culture evolve in favour of sustainable development, we have mobilized our 100,000 employees through the progress plans defined at each of our sites as part of the Sustainab'ALL program, in which the Company sets out its material contribution to sustainability. ■



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hrough this Sustainability & Climate report, I am pleased to present you the concrete progress of our transition strategy, to which we have been resolutely committed since 2020.

In 2023, TotalEnergies posted solid results, in line with its objectives while executing its strategy of balanced transition towards an integrated energy company and being the major that invests most in tomorrow's energy system.

# More Energy, Less Emissions

**Message from Patrick Pouyanné,**  
Chairman and CEO

**TotalEnergies stays the course of its balanced multi-energy strategy...**

Anchored on two pillars – hydrocarbons, especially LNG on the one hand, and Integrated Power, the energy at the heart of the energy transition, on the other hand, the Company is building a strong position to support the energy transition of its customers. Indeed, thanks to refocusing its Oil & Gas portfolio on assets and projects with low breakeven and low greenhouse gas emissions, and by diversifying into electricity, notably renewable, through an integrated strategy from production to customer, the Company is implementing its transition strategy supporting its customers and stakeholders in their decarbonization while offering an attractive return to shareholders.

**... responsibly producing low-cost, low-emission hydrocarbons...**

In 2023, we have reduced our emissions by 24% across all



**Anchored on two pillars, the Company is building a strong position to support the energy transition of its customers.**

our operated sites compared with 2015, with a 34% reduction for our operated Oil & Gas production, refining and liquefaction sites. These results support our objectives for 2030 (40% net reduction). The Scope 1+2 emission intensity of Upstream Oil & Gas activities on equity basis, decreased to 18 kg CO<sub>2</sub>e/boe in 2023. Methane emissions from our operated sites, already among the lowest in the sector, have fallen by more than 47% compared with 2020. We are on track to reach our -50% target a year ahead of our 2025 target, aiming for zero methane emissions by 2030 (-80% target). For this reason, we have decided to extend to all our Upstream Oil & Gas operations the target of methane intensity emissions below 0.1% (and not only to Upstream gas operations).

We are a leader in LNG, a transitional energy that addresses the intermittent nature of renewable power generation and helps reduce emissions in countries using coal for power generation. As in 2022, the Company evaluated that its LNG sales contributed to avoiding around 70 Mt of CO<sub>2</sub>e emissions worldwide in 2023.

**... and by developing a profitable and differentiated Integrated Power business model to create a future cash-flow engine of the Company...**

TotalEnergies invested \$16.8 billion in 2023 of which 35% in low-carbon energies, mainly in power. These massive investments have made it possible to increase our capacities in renewable electricity production (by +6 GW in 2023), storage, flexible production, and distribution (60,000 charging points for electromobility at the end of 2023 including more than 1,000 high-power charging points).

The Company is building a world class cost-competitive portfolio combining renewable (solar, onshore wind, offshore wind) and flexible assets (flexible gas power plants, storage) to deliver clean firm power to its customers 24/7. In particular, TotalEnergies is leveraging its purchasing power to optimize its investment costs and industrialize its renewable assets through digital to lower operating costs.

In 2023, our net electricity production amounted to 33 TWh, including 19 TWh of renewable power. The Company aims to grow its power generation to more than 100 TWh by 2030, investing on average \$4 billion per year; we are aiming for cash flow generation from this segment of more than \$4 billion in 2028, with the Integrated Power segment becoming net cash positive by this time.

Our growth in power, with a renewable electricity generation portfolio representing more than 80 GW (including 22 GW of gross capacity already installed), positions us as one of the world's leading solar and wind developers in 2023, and we have the ambition to be among the world's top 5 by 2030 (excluding China).

These developments in electricity contribute to reducing our customers' emissions generated by the use of the energy we sell them. As a result, the carbon content of the energy sold to our customers fell by 13% in 2023 compared with 2015, and we are well on track to achieving our -25% target in 2030.

**... in a collaborative approach essential to the success of a just, orderly and equitable transition.**

**TotalEnergies welcomes the agreement reached in Dubai at COP 28**, which calls for "*transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner*" and which highlights the need for transitional fuels such as gas. As an energy producer and supplier, we need to have the courage to say that the energy transition will mean a higher energy price, because it means building a decarbonized power system using intermittent energy sources, which will have to be supplemented by flexible resources, while investing massively in infrastructure and



**TotalEnergies welcomes the agreement reached in Dubai at COP28. This agreement reinforces TotalEnergies' transition strategy.**

the electrification of uses, particularly in industry and transport. In order to make this transition acceptable, we are pursuing the development of new hydrocarbon projects, as the pace of transition will not be the same everywhere in the world. We believe that we cannot ask countries of the Global South to not develop their resources, when OECD countries have been developing them for more than a century to ensure their development. This is also what the Dubai agreement is about.

**This agreement reinforces TotalEnergies' transition strategy**, which is anchored on two pillars, the responsible production and sales of Oil & Gas, and electricity, notably renewables. TotalEnergies supports the objectives of tripling renewable energies (and aims to do more at its own level) and doubling energy efficiency by 2030, as well as slashing methane emissions within that time frame ("aiming for zero methane").

These objectives are an integral part of TotalEnergies' roadmap for 2030.

#### We share this approach with our stakeholders.

We play an active role in disseminating responsible production objectives in our industry: at COP 28, more than 50 companies from the Oil & Gas sector signed the OGDC (Oil & Gas Decarbonization Charter), committing themselves to reducing emissions from their operations and, in particular aiming for zero methane emissions by 2030. TotalEnergies has actively supported the success of OGDC. And I myself have the honor of having been designated among the 3 "champions" to lead the OGDC with the CEOs of ADNOC and Aramco. When it comes to detection, measurement and reduction of methane emissions, we are sharing our drone detection and measurement technology (AUSEA) with several national companies from producing countries: Petrobras (Brazil), Sonangol (Angola), NNPC (Nigeria), SOCAR (Azerbaijan), ONGC (India).

Every day, TotalEnergies supplies electricity and gas to 8 million homes in Europe, and every day 8 million people visit our 15,000 service stations in 56 countries around the world and 60,000 electric charging points. Our Company works with its industrial customers, particularly those in hard to abate sectors to find solutions to reduce these

emissions together, as in the air transport sector, illustrated by the strategic partnership with Airbus to supply 50% of their sustainable fuel needs in Europe and to conduct a research and innovation program aimed at developing 100% sustainable fuels.

#### We owe our ambition and our results to our teams, whom I would like to thank for their commitment.

As part of its transition strategy aimed at achieving Ambition Net Zero in 2050, together with society, the Company has placed sustainable development at the heart of its strategy, projects and operations. Together, with the Sustainab'ALL program, we are making our collective culture evolve step by step.

2024 is our centenary year. Energy represents the history and the future of TotalEnergies. Rising to the dual challenge of meeting the energy needs of an ever-growing world population while reducing global warming, reinventing energy production and consumption in order to get to Net Zero by 2050, together with society, those tasks underlie the raison d'être of TotalEnergies which is to supply to as many people as possible a more affordable, more available and more sustainable energy.



**We owe our ambition  
and our results to our teams,  
whom I would like to thank  
for their commitment.**

We are proud of 100 years of pioneering spirit in the service of energy and its challenges. We are resolutely committed to this new path of collective challenges for sustainable development, Net Zero, together with society. ■

Pioneers  
for  
**100**  
years

# Achieving Our Transition Together



**Jacques Aschenbroich**

Lead Independent Director,  
Chairman of the Governance  
and Ethics Committee

**S**ince the last General Meeting of Shareholders, held in May 2023, I have held the position of Lead Independent Director, which was entrusted to me by the Board of Directors, and in this capacity I chair the Governance and Ethics Committee.

In this context, I oversaw the work that led to the unanimous decision by the Board of Directors to propose to the General Meeting of Shareholders in May 2024 the renewal of Patrick Pouyanné's term of office as part of the balanced governance implemented since 2015, which led the Board to propose the renewal of my own term of office as Lead Director.

In reaffirming its support for the quality and relevance of the transition strategy implemented since 2020, the Board of Directors considered it appropriate to ensure the continuity of the Company's governance and leadership. Over the past 10 years, Patrick Pouyanné has done an excellent job at steering TotalEnergies in a complex environment, delivering

extremely solid financial results and committing the Company to the energy transition more quickly and decisively than its peers. The Board of Directors is unanimously counting on his leadership and strategic vision to pursue TotalEnergies' transition with determination and consistency, based on 2 pillars: Oil & Gas on the one hand, and Power and Renewables on the other. This vision, which creates value in the medium and long term, and this strategic stability are an asset and a differentiating factor for TotalEnergies compared with its peers.

The renewal of Patrick Pouyanné's responsibilities takes place in the continuing policy of combining functions of Chairman and Chief Executive Officer, this management form being considered to be the most appropriate for dealing with the challenges and specificities of the energy sector, which is facing major transformations. Indeed, more than ever, this context requires agility of movement, which the unity of command reinforces, by giving the Chairman and Chief Executive Officer the power to act and increased representation of the Corporation in its strategic negotiations with States and partners of the Company. The unity of the power to manage and represent the Company is also well regulated by the Company's corporate governance, with a lead independent director who has extensive powers and whom the Board of Directors has judged to be fully fulfilling his role.

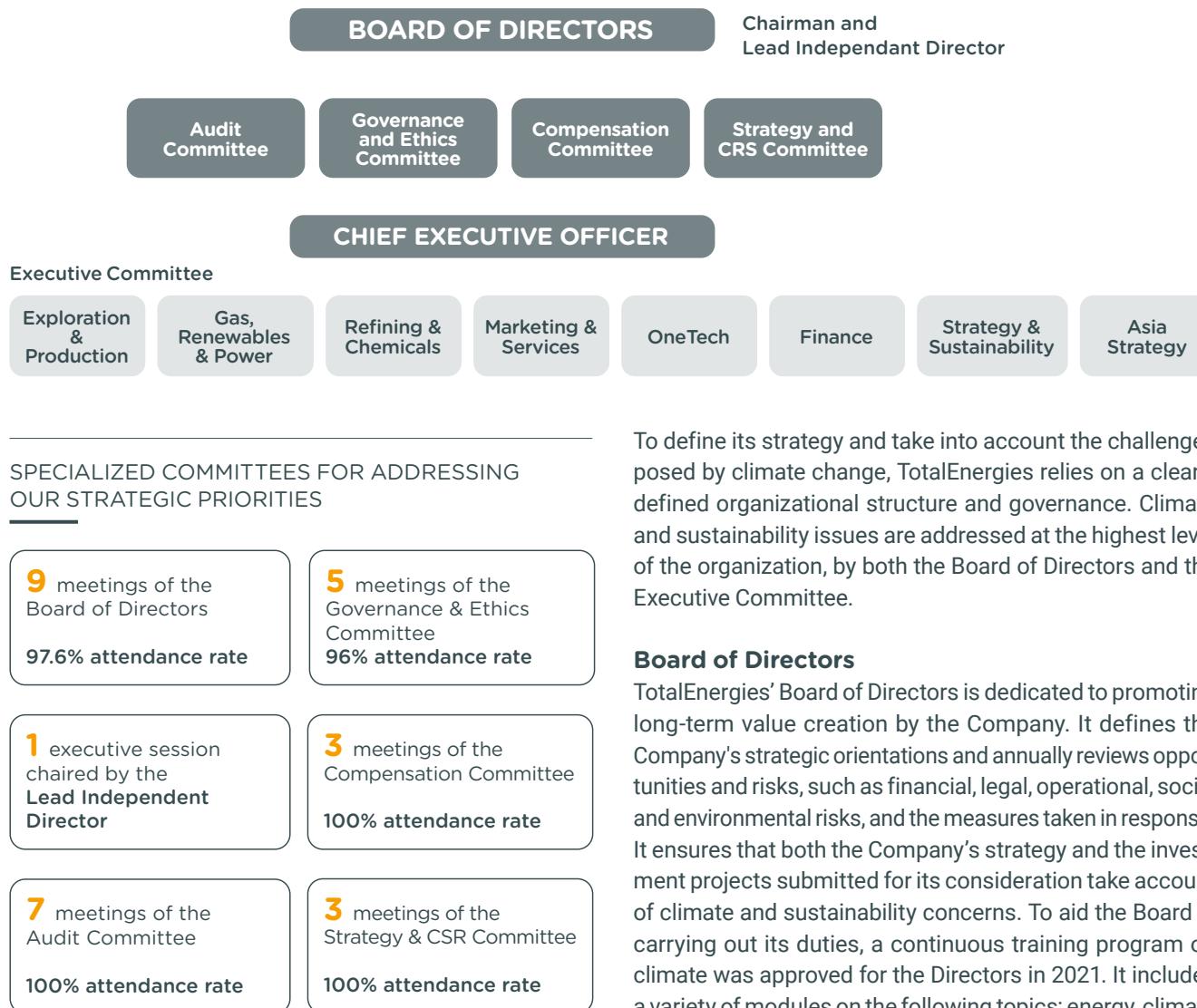
I also led the evaluation of the Board of Directors' performance, which was based on a written questionnaire and individual interviews with each director, as well as on the

discussions we had at the annual meeting of directors who do not hold an executive or salaried position ("Executive Session"), which I chaired. The implementation of the transition strategy decided by the Board of Directors makes TotalEnergies the Company most committed to the energy transition among the majors, by developing, in a resolved and structured way, an "Integrated power" business. As a result, TotalEnergies is one of the major players in renewable energies, and the "Integrated Power" business is achieving encouraging levels of profitability. In this context, communication efforts need to be further developed to improve the perception of the fundamental work undertaken by the Company and to ensure that this energy transition is fully recognized by stakeholders.

With regard to stakeholders, my role as Lead Director leads me to engage in dialogue with various shareholders, in particular on the Company's transition strategy, its progress in this area and the updating of its ambition described in this report.

For the 4<sup>th</sup> consecutive year, the Company's ambition in terms of sustainable development and energy transition will be submitted to shareholders for their opinion. The Annual General Meeting in May 2024 will therefore be asked to give an advisory opinion on this report, which is a concrete demonstration of the shareholder dialogue, open to all stakeholders, that we wish to have, in complete transparency, to achieve together a "just, orderly and equitable" energy transition, in line with the Paris Agreement and the Dubaï consensus. ■

# Governance



change and environmental risks, financial risks and opportunities. Site visits make a very practical contribution to their training, enabling them to deepen their knowledge of the Company's specific features, its sustainability challenges in particular, its businesses – including new ones – and its teams. They are often the occasion for thematic presentations. In addition, the climate-related training modules identified among those available to TotalEnergies employees are accessible to Directors.

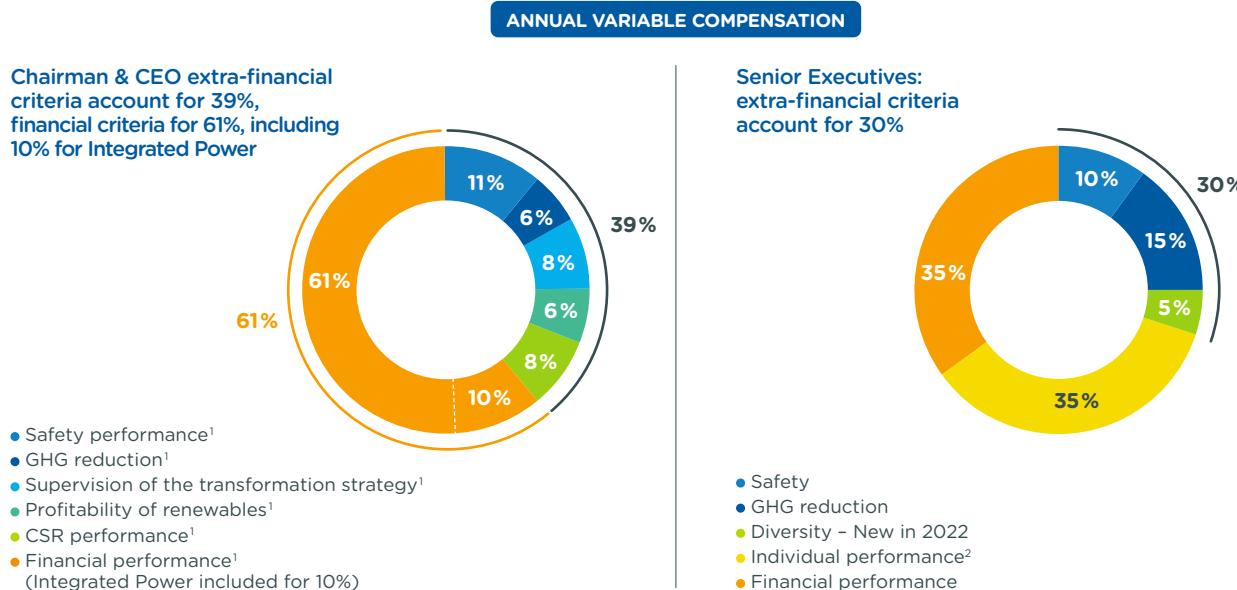
## Strategy & CSR Committee

At the 2023 Annual Strategy Seminar, the Directors discussed the energy transition in the US and in the world with Dan Yergin, Vice President of S&P Global. The Strategy Seminar also provided an opportunity to examine Integrated Power's profitability drivers, as well as the state of hydrogen technologies and cost assessments.

## The Audit Committee

The Audit Committee, which is already reviewing the extra-financial performance declaration, has taken steps to take on the new tasks arising from the regulations on the reporting of sustainability information. In particular, it will monitor the process of drawing up the sustainability report that will succeed the extra-financial performance declaration, and which will be published for the first time in 2025 in relation to the 2024 financial year. It also monitors the certification of sustainability information.

## VARIABLE COMPENSATION ALIGNED WITH THE COMPANY'S STRATEGIC OBJECTIVES



### Compensation Committee

For many years the Compensation Committee has included sustainability issues including climate ones in the compensation structures of the Chairman & Chief Executive Officer, as well as in the criteria related to the performance share plans (see opposite).

### Executive Committee (Comex)

The Chairman & Chief Executive Officer of TotalEnergies, assisted by the Executive Committee, ensures that climate issues are taken into account and built into operational roadmaps. The Executive Committee is responsible for identifying and analyzing risks that could prevent TotalEnergies from reaching its objectives.

The TotalEnergies Risk Management Committee (TRMC) assists the Executive Committee. The TRMC's primary duties are to ensure that the Company's risk mapping is updated on a regular basis and that its existing risk management processes, procedures and systems are effective.

The Strategy & Sustainability Division coordinates the Company's activities through the entities in charge of strategy and markets analysis, sustainability and climate, and also safety, health and environment, legal affairs, relations with public authorities and internal audit. Its President also chairs the Risk Committee (CoRisk) which is in charge of the Company's investments.

The Finance Division ensures an ongoing dialogue with investors, analysts and extra-financial rating agencies on climate challenges and on extra-financial issues more broadly. In all, more than 450 meetings were held in France and worldwide in 2023. ■

1. Maximum percentage. 2. According to the role.

3. More than 12,000 employees.

# Our Climate-Related Risks

## EXTRACT FROM TOTALENERGIES' RISK MAPPING

Following the recommendation of the task force on Climate-related Financial Disclosures

	Transition risks			Physical risks		
	Policy and legal risks	Technology risk	Market risk	Reputation risk	Acute risk	Chronic risk
Pace of the energy transition deployment, evolution of the demand	✓	✓	✓			
Financing of Oil & Gas reserves	✓		✓			
Operational risks related to the effects of climate change and extreme events	✓	✓			✓	✓
Risk of legal action	✓					
Reputation risk				✓		
Risks related to skills management and changes in jobs		✓	✓			

**T**he risks posed by climate change are included among the risks analyzed by the TotalEnergies Risk Management Committee (TRMC). TotalEnergies ranks its risks by type and gravity. In 2022, the TRMC updated its risk mapping and submitted the results to the Board of Directors in early 2023.

In the table above, TotalEnergies' risks are positioned in relation to identified generic risks, in accordance with the recommendation of the Taskforce on Climate-related Financial Disclosure (TCFD). The TRMC also verifies the use of appropriate risk management systems. Additional action plans can be defined when necessary.

Audits are conducted to ensure that existing risk reduction and control measures are effective. Personnel from multiple disciplines, segments and businesses may collaborate in carrying out these action plans and audits. The Audit Committee of the Board of Directors monitors the effectiveness of the internal control and risk management systems established by senior management, in light of identified risks and with a view to fulfilling TotalEnergies' objectives.

### Adaptation to physical risks

We take climate risk into account in the design of our facilities and in the evaluation of our sites in operation. Climate change potentially has multiple consequences, including rising sea levels and increased extreme weather events, that can negatively impact our operations.

We have issued recommendations for addressing the anticipated changes in the climate system and its components in our facility design bases (metocean criteria).

Similarly, we evaluate the vulnerability of our sites in operation to weather events so that their consequences do not affect the installations' integrity or people's safety. Internal studies have not identified any existing facilities that are vulnerable to the consequences of climate change known to date. ■

1. International Association of Oil & Gas Producers.

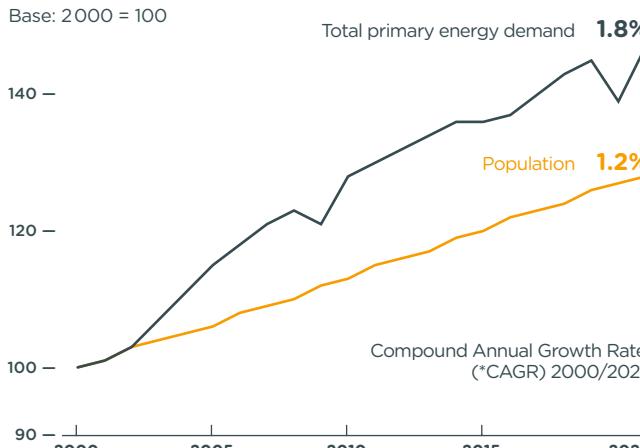


# Our Ambition and Progress

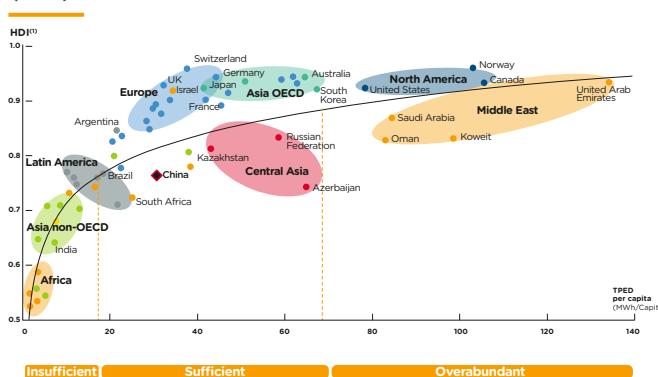
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# Global Challenges: More Energy, Less Emissions

EVOLUTION OF TOTAL PRIMARY ENERGY DEMAND (TPED) AND WORLD POPULATION GROWTH



TOTAL PRIMARY ENERGY DEMAND (TPED) PER CAPITA VS THE HUMAN DEVELOPMENT INDEX (HDI)



**E**nergy is an essential resource, everywhere indispensable for living: for food, lighting, heating and cooling, transport, healthcare, construction and trade.

Historically, energy demand has grown in line with demographic growth and rising living standards, as illustrated on the left since 2000.

The world's population is set to grow by almost 2 billion additional inhabitants by 2050. This prospect will have significant implications for achieving the UN's Sustainable Development Goals (SDGs) to improve prosperity and social well-being while protecting the environment and biodiversity.

In the **countries of the Global South**, where access to energy is already one of the limiting factors in human development (see graph below), populations aspire to improve their quality of life.

In **OECD countries**, energy has enabled socio-economic development that no country is prepared to forego.

The IPCC reiterated in 2021<sup>1</sup> that global warming is the consequence of GHG emissions linked to human activities, and warned of the environmental and socio-economic impacts of this already tangible climate change.

**"TotalEnergies supports the Paris Agreement."**

Since the Paris Agreement in 2015, States have jointly pledged *"to strengthen the global response to the threat of climate change, in the context of sustainable development and the fight to eradicate poverty, in particular by holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels"*.

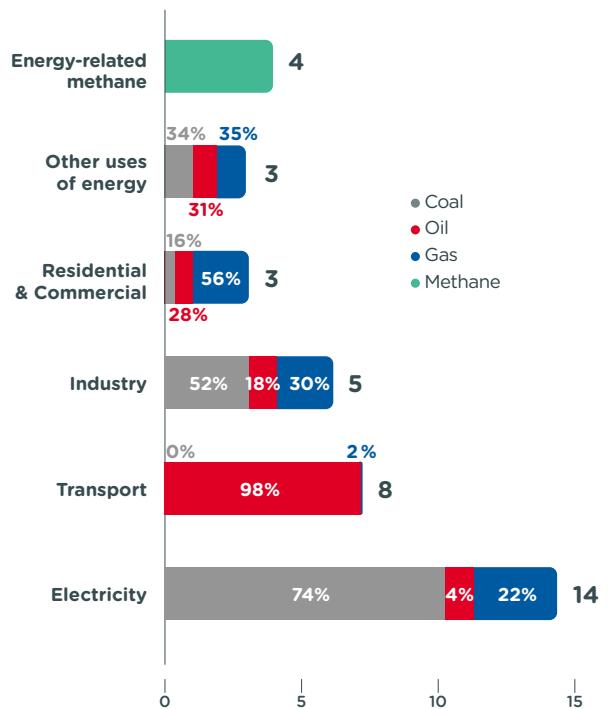
The energy system must therefore be transformed, because energy is at the heart of this global climate challenge: greenhouse gas (GHG) emissions linked to the production or use of energy account for over 60% of global emissions in 2021 (ref. IPCC & IEA), as the global energy system is still 80% relying on fossil fuels.

There is an urgent need to accelerate the development of a decarbonized energy system, while maintaining the current energy system at a level sufficient to meet global demand and organize a just, orderly and equitable transition of energy systems. ■

**Sources.** Population: Oxford Economics, TPED—Enerdata. Graph: adapted from Smil, Vaclav. *Energy and Civilization: A History*. The MIT Press, 2018; data from World Bank, Energy Institute, EIA databases. 1. Human Development Index (HDI) combines life expectancy at birth, adult literacy, combined educational enrollment, and per capita GDP. 2. Climate Change 2021 : The Physical Science Basis and other assessment reports 6.

# Global Issues: COP28 and Actions to be Taken

GLOBAL GHG EMISSIONS FROM FOSSIL FUEL COMBUSTION IN 2021 - 37 Gt CO<sub>2</sub>e



Sources : CO<sub>2</sub> Emissions in 2022, IEA, rapport et database : <https://www.iea.org/reports/CO2-emissions-in-2022> – Emissions in 2022 – Analysis - IEA. Greenhouse Gas Emissions from Energy Data Explorer (update 2023) : <https://www.iea.org/data-and-statistics/data-tools/greenhouse-gas-emissions-from-energy-data-explorer> – Greenhouse Gas Emissions from Energy Data Explorer – Data Tools - IEA.



otalEnergies welcomes the agreement reached in Dubai that calls for “transitioning away from fossil fuels” in a “just, orderly and equitable manner.” Within this framework, TotalEnergies notes with interest the agreement’s reference to transitional fuels such as gas.

TotalEnergies supports the objectives of tripling the amount of renewable energy and doubling energy efficiency by 2030, as well as slashing methane emissions within that time frame. These objectives are at the heart of TotalEnergies’ roadmap for 2030.

This agreement reinforces TotalEnergies’ transition strategy, which aims, on the one hand, to contribute to the development of a new decarbonized energy system based on electricity and renewables, in which gas plays a useful role as a flexible transitional energy; and, on the other hand, to support a just, orderly and equitable transition away from fossil fuels, notably in emerging countries that legitimately aspire to economic and social development for their populations.

Given the energy-related emissions as shown in the chart on the left, **reducing the associated emissions implies in the short term:**

- minimising the share of coal in the electricity mix, starting from OECD countries;
- decarbonizing the road transport sector (currently 90% powered by petroleum products);
- aiming for the elimination of methane emissions from fossil fuel production processes.

To achieve this, massive investments are needed, not only in renewable energy, but also in electricity networks and systems enabling to ensure the availability of the new electricity system.

Another challenge is to **reduce fossil fuel consumption at the right pace**. In the Global South, fossil fuels remain an affordable solution for providing growing populations with access to energy, and therefore greater prosperity.

In OECD countries, an accelerated transition means retiring existing assets at country, industry and household levels, and investing in new low-carbon assets.

The transition will not take place without **social acceptability** (both between North and South and within OECD countries) and without genuine efforts in terms of **climate justice**. Accelerating the pace of investment in low-carbon energies requires strong **cooperation between the private and public sectors**.

- In OECD countries, simplify and speed up the permitting process to accelerate the deployment of grids and renewable energies.
- Actively support the transition of the Global South through (I) the development of multilateral financial guarantees essential to project financing and (II) the deployment of training programs to support the local implementation of new technological solutions. ■

# A Two-pillar Multi-energy Strategy

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otalEnergies stays the course of its balanced integrated multi-energy strategy...

TotalEnergies reaffirms the relevance of its balanced integrated multi-energy strategy considering the developments in the oil, gas and electricity markets. Anchored on two pillars, Oil & Gas, notably LNG, and electricity, the energy at the heart of the energy transition, the Company is in a very favorable position to take advantage of energy prices evolution. Thanks to the refocusing of the Oil & Gas portfolio on assets and projects with low breakeven and low greenhouse gas emissions, and to the diversification into electricity, notably renewable, through an integrated strategy from production to customer, the Company is implementing its transition strategy while ensuring an attractive shareholder return policy.

## ...responsibly producing low cost, low emission Oil & Gas.

While drastically lowering the emissions from its operations, TotalEnergies plans to grow Oil & Gas production by 2-3% per year over the next five years, predominantly from LNG, thanks to its rich low cost, low emission Upstream portfolio.

The Company plans notably to develop a top-tier pipeline of LNG projects (Qatar North Field Expansion, Papua LNG, Energia Costa Azul LNG and Rio Grande in the US, Mozambique

LNG) while leveraging its leading position in Europe in regasification and its leading LNG exporter position in the United States.

TotalEnergies plans to launch the production of its portfolio of high-return oil projects (Brazil, Gulf of Mexico, Iraq, Uganda) recently enriched with exploration successes in Suriname and Namibia.

The key indicator of our progress on this pillar is the reduction in Scope 1 + 2 emissions because our first duty as a producer of hydrocarbons is to reduce the greenhouse gas emissions linked to their production.

## ...and developing a profitable and differentiated Integrated Power model to create a future cash engine of the Company.

TotalEnergies is replicating its integrated Oil & Gas business model into the electricity value chain to achieve a profitability (ROACE) of ~12% for the Integrated Power segment, equivalent to Upstream Oil & Gas ROACE at 60 \$/b, above the returns of the traditional Utilities model.

The Company is building a world class cost-competitive portfolio combining renewable (solar, onshore wind, offshore wind) and flexible assets (CCGT, storage) to deliver low-carbon electricity available 24/7. In particular, TotalEnergies

is leveraging its scale effect in equipment purchase to optimise its investment costs and industrialize its renewable assets through digital to lower operating costs. TotalEnergies also uses the strength of its balance sheet to keep market exposure, allowing it to capture additional margins in a market exposure.

The Company aims to grow its power generation to more than 100 TWh by 2030, investing around \$4 billion per year; the generated cash flow of this segment was \$2.2 billion in 2023 and will be more than \$4 billion in 2028, becoming net cash-flow positive at that time.

Additionally, TotalEnergies invests in low-carbon molecules (biofuels and biogas, as well as hydrogen and its derivatives: e-fuels and SAF).

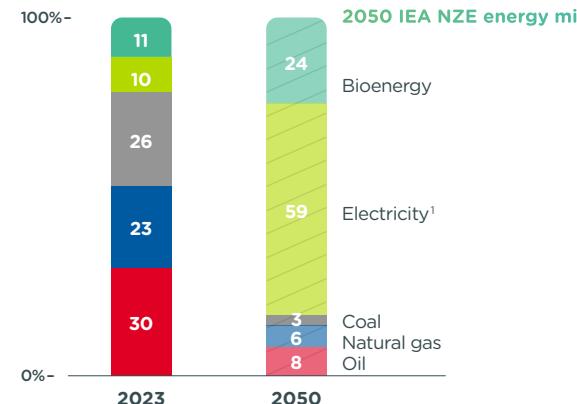
The key indicator of our progress to measure our transition towards low-carbon energy products is the lifecycle carbon intensity<sup>1</sup> of the products used by the Company's customers. It divides the lifecycle emissions (from production to final use) of our energy products sold (Scope 1+2+3) by the quantity of energy supplied (g CO<sub>2</sub> e/MJ). The reduction in carbon intensity<sup>1</sup> reflects the lower carbon content of the energy sold to our customers and the Company's progress in implementing its transition strategy. ■

<sup>1</sup>. Lifecycle carbon intensity of energy products sold. See report's glossary for further details.

# A Net Zero Company by 2050, Together with Society

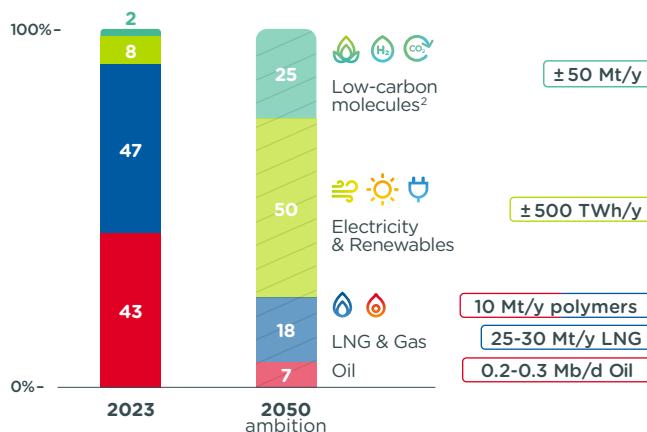
GLOBAL ENERGY SYSTEM ACCORDING TO THE IEA IN 2050

Total primary energy demand mix – Worldwide



VISION OF TOTALENERGIES SALES IN 2050

TotEnergies' sales mix



**T**otalEnergies reaffirms its ambition to be a major player in the energy transition and shares a vision of what its activities could be to achieve carbon neutrality by 2050, together with society.

By 2050, TotalEnergies would produce:

- about 50% of its energy in the form of electricity, including the corresponding storage capacity, totaling around 500 TWh/year, on the premise that TotalEnergies would develop about 400 GW of gross renewable capacity;
- about 25% of its energy, equivalent to 50 Mt/year of low-carbon energy molecules in the form of biogas, hydrogen, or synthetic liquid fuels from the circular reaction:  $H_2 + CO_2 \rightarrow e\text{-fuels}$ ;
- around 1 Mboe/day of Oil & Gas (about a quarter of the production in 2030, consistent with the decline envisaged by the IEA's Net Zero scenario), primarily liquefied natural gas (about 0.7 Mboe/d, or 25-30 Mt/year) with very low-cost oil accounting for the rest. Most of that oil would be used in the petrochemicals industry to produce about 10 Mt/year of polymers, of which two thirds would come from the circular economy.

**That Oil & Gas would represent:**

- about 10 Mt CO<sub>2</sub>e/year of Scope 1 residual emissions, with methane emissions aiming towards zero (below 0.1 Mt CO<sub>2</sub>e/year); those emissions would be offset in full by projects using nature-based solutions (natural carbon sinks).
- Scope 3<sup>4</sup> emissions totaling about 100 Mt CO<sub>2</sub>e/year. To get to net zero together with society, TotalEnergies would

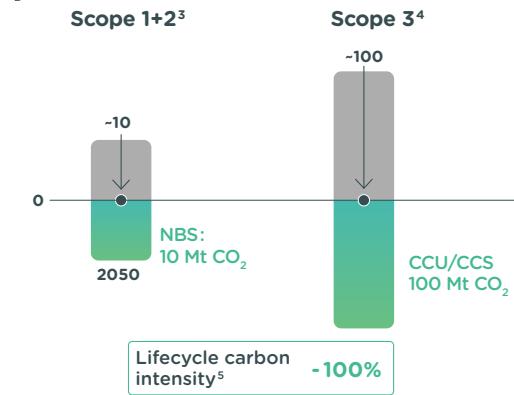
contribute to "eliminate" the equivalent of 100 Mt/year of CO<sub>2</sub> generated by its customers by developing carbon utilization (CCU) and carbon capture and storage (CCS) solutions of approximately 100 Mt CO<sub>2</sub>e/year.

In 2050, our trading portfolio would be aligned with our productions and sales portfolio. ■

\*Sources: 2023 Enerdata - 2050 IEA 2023 (NZE Scenario). 1. Hydro, solar, wind and nuclear. 2. Biofuels, biogas, hydrogen and e-fuels/e-gas. 3. From operated facilities. 4. GHG Protocol – Category 11. See report's glossary for further details. 5. Lifecycle carbon intensity of energy products sold. See report's glossary for further details.

TOTALENERGIES NET ZERO VISION 2050

Mt CO<sub>2</sub>e

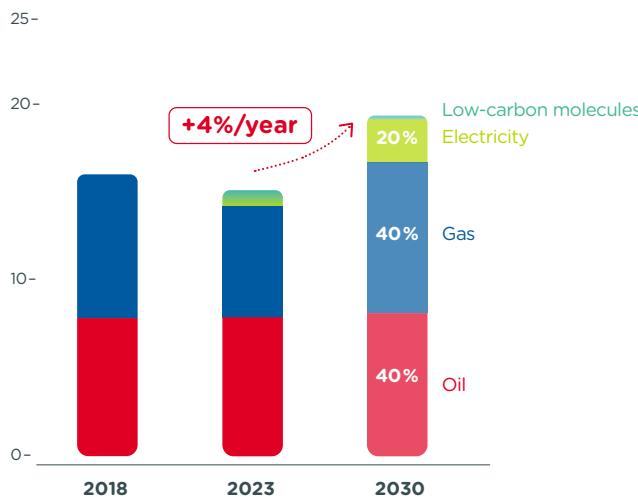


# 2030: Our Objectives for More Energy and Less Emissions

## ENERGY PRODUCTION AND SALES

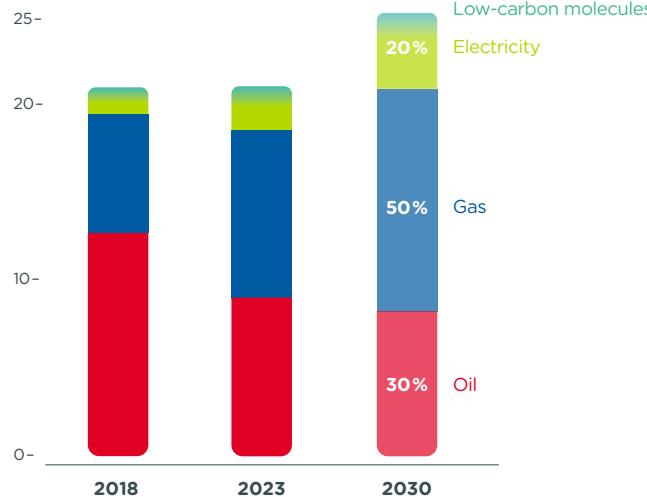
### Energy production

In PJ/d



### Energy sales

In PJ/d



**+ 4%/year**  
of energy production  
between 2023  
and 2030

**- 25%**  
lifecycle carbon  
intensity of energy  
products sold<sup>1</sup>



Over the decade 2020-2030, the TotalEnergies' energy transition strategy based on two pillars is reflected in the production and sales targets shown on the left hand side:

### Production

We plan to increase our energy production (oil, gas and electricity), by 4% per year between 2023 and 2030, while reducing emissions (Scope 1+2 and methane) from our operated facilities (see table p. 31).

### Sales

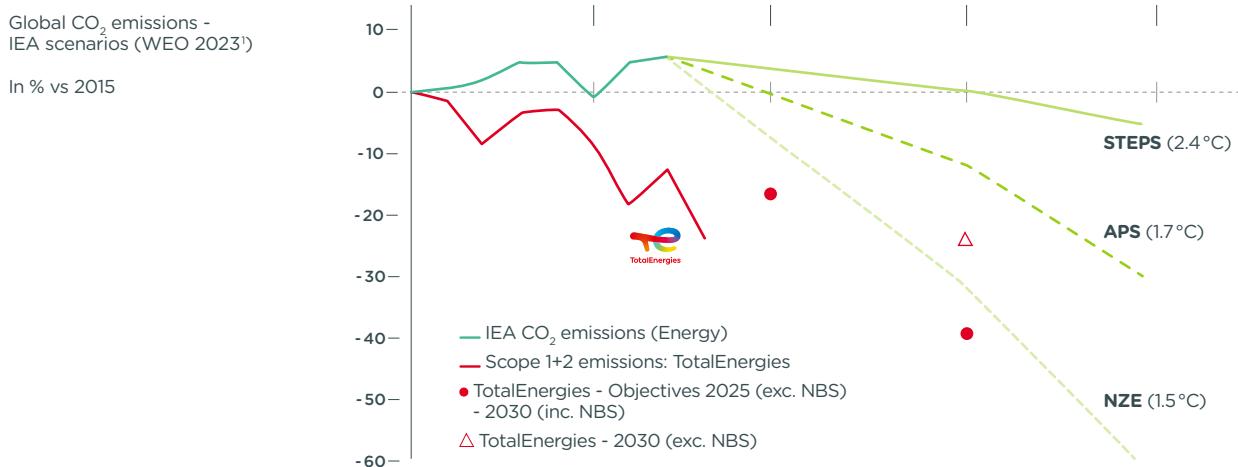
We are aiming to reduce the carbon intensity<sup>1</sup> of our sales by 25% by 2030, compared to 2015.

Taking these factors into account, we are developing our sales mix to reach 20% electricity by 2030, with a higher proportion of gas sales than oil sales. ■

<sup>1</sup>. Lifecycle carbon intensity of energy products sold. See report's glossary for further details.

# How TotalEnergies' 2030 Objectives Compare to the IEA Scenarios

## SCOPE 1+2 EMISSIONS FROM OPERATED FACILITIES



## LIFECYCLE CARBON INTENSITY OF ENERGY PRODUCTS SOLD<sup>2</sup>



Reducing GHG emissions at our operated facilities (Scope 1+2) is key to our ambition to supply more energy while curbing GHG emissions.

Our objective of cutting net Scope 1+2 emissions from our operated activities by 40% is consistent with the reduction targets of the European Union's "Fit-for-55" program (a 37% decrease between 2015 and 2030) and the IEA's 2023 Net Zero Emissions (NZE) scenario (a 31% decrease between 2015 and 2030).

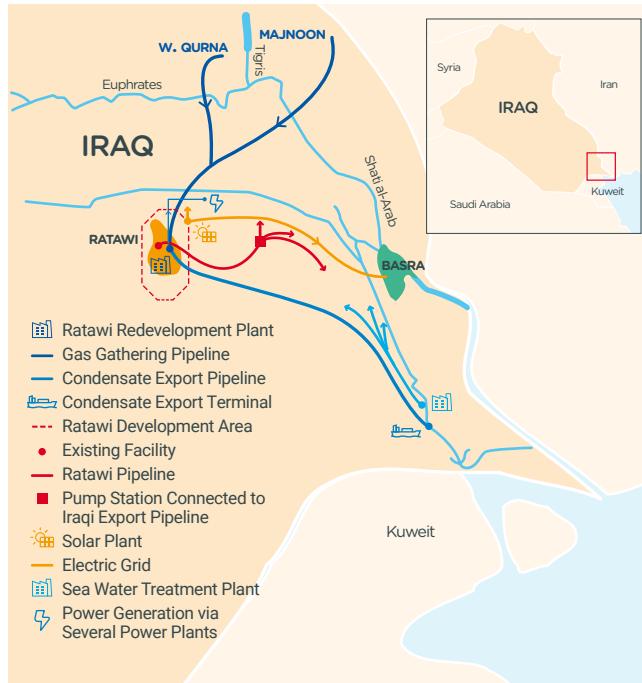
Our targets for lowering the lifecycle carbon intensity<sup>2</sup> of energy products sold (a 15% reduction by 2025 and a 25% reduction by 2030) put the Company on a trajectory close to the Announced Pledges Scenario (APS) in the IEA's World Energy Outlook 2023, which assumes that the States parties to the Paris Agreement fulfill all their net zero objectives.

An independent third party (Wood Mackenzie)<sup>3</sup> has audited the calculations made and the trajectories presented. ■

1. Based on the IEA's World Energy Outlook 2023 <https://www.iea.org/reports/world-energy-outlook-2023>. Licence CC by 4.0. Global CO<sub>2</sub> emissions from energy combustion and industrial processes. Excluding Covid-19 impact in 2020 and 2021 for TotalEnergies' GHG emissions. 2. TotalEnergies' lifecycle carbon intensity of energy products sold (see report's glossary for further details) and the change in carbon intensity of the world's energy, calculated as the ratio of the world's CO<sub>2</sub> emissions from fossil fuels (in Mt CO<sub>2</sub>) to the total primary energy supply (in EJ) of the IEA's World Energy Outlook 2023. A replacement factor of 2.63 (38%) is used to obtain a fossil fuel equivalent for renewable power generation (wind, solar and hydroelectricity) modeled in those scenarios for purposes of comparison with TotalEnergies' lifecycle carbon intensity. 3. Link to the assurance letter of Wood Mackenzie.

[https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2024-03/totalenergies\\_woodmac-totalenergies-letter\\_20240314\\_en.pdf.pdf](https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2024-03/totalenergies_woodmac-totalenergies-letter_20240314_en.pdf.pdf)

## FOCUS SUPPORTING IRAQ TOWARD ITS ENERGY INDEPENDENCE



100 years after the start of its oil activities in Iraq, TotalEnergies continues to be a pioneer in the country by developing several projects in the Basra region, designed to enhance the development of Iraq's natural resources to improve the country's electricity supply.

TotalEnergies, with the support of the Iraqi authorities, on the one hand will invest in installations to recover gas that is being flared on three oil fields and as such supply gas to 1.5 GW of power generation capacity in a first phase growing to 3 GW in a second phase, and, on the other hand, will also develop 1 GWac of solar electricity generation capacity to supply the Basra regional grid.

In April 2023, TotalEnergies confirmed with the Iraqi authorities the terms of the **GGIP (Gas Growth Integrated Project)** agreements announced in September 2021.

These agreements include:

- the construction of a new gas gathering network and treatment units to supply the local power stations, with TotalEnergies also bringing its expertise to optimize the Oil & Gas production of the Ratawi field, by building and operating new capacities;

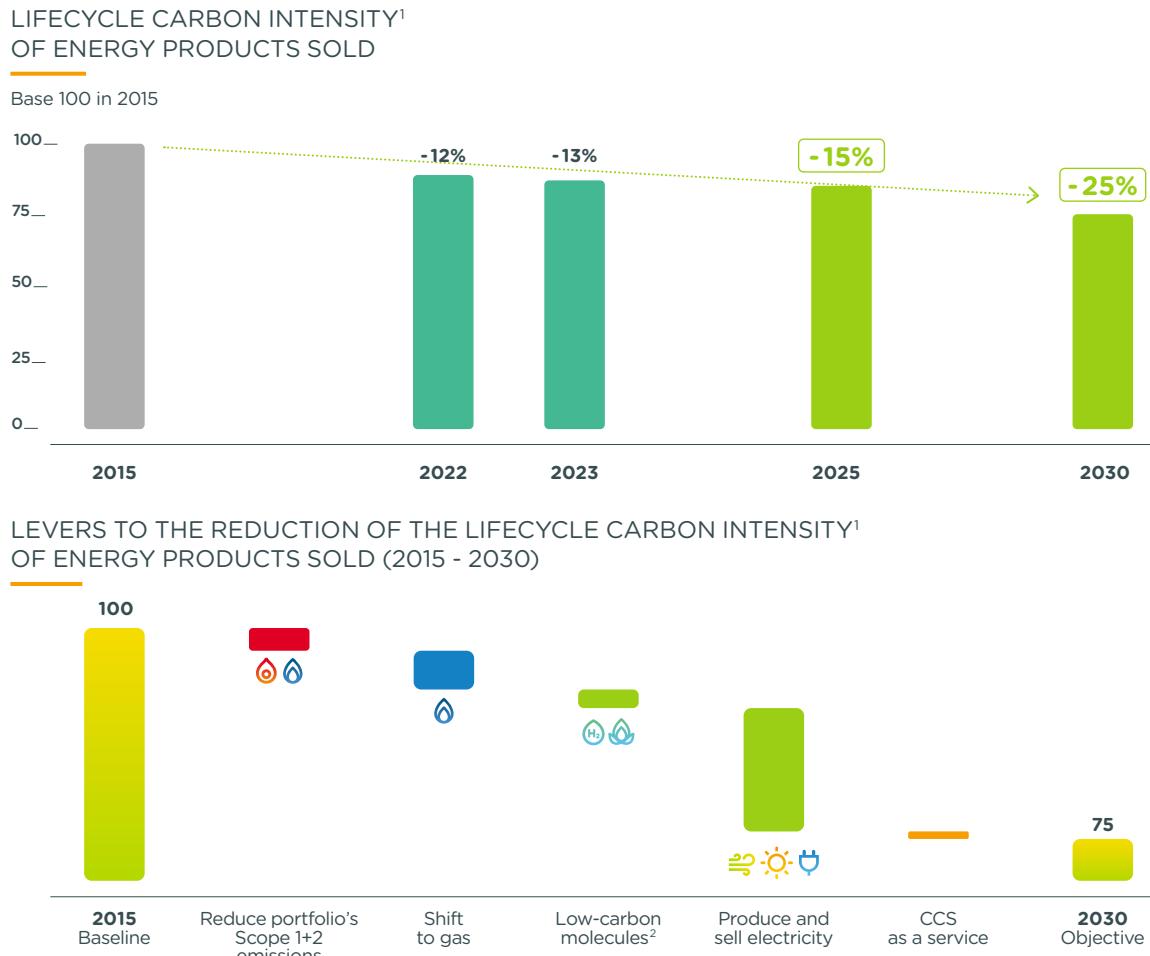
- the construction of a large-scale seawater treatment unit to increase water injection capacities in southern Iraq fields without increasing water withdrawals as the country is currently facing a water-stress situation. This water injection is required to maintain pressure in several fields and as such will help optimizing the production of the natural resources in the Basra region;

- the construction and operation of a photovoltaic power plant with a capacity of 1 GWp to supply electricity to the grid in the Basra region powering 350,000 homes.

These projects represent a total investment of approximately \$10 billion (100% share).

The project also illustrates how the footprint of our projects can be minimized. A preliminary review of the project's land footprint was carried out during the design phase. The project's technical experts worked in coordination with the team in charge of societal performance and our partners to revise the layout of the gas pipelines in order to avoid the project's impact on populations. ■

# A Strategy to Reduce Our Clients' Emissions



**B**y 2030, we intend to reduce the emissions linked to the energy we supply to our customers by 25% compared to 2015. In other words, we intend to decrease by 25% the carbon intensity<sup>1</sup> of energy products sold, which accounts for the lifecycle emissions (Scope 1+2+3) of our energy products per unit of energy sold (g CO<sub>2</sub>e/MJ).

Indeed, by offering our clients an increasingly **decarbonized** portfolio, we contribute to the energy transition and help our clients **reduce their emissions**.

In 2023 we maintained our progress thanks to sales growth of renewable energy by notching a 13% reduction in the lifecycle carbon intensity<sup>1</sup> of our products compared to 2015.

Growth in electricity will drive more than half the reduction in our lifecycle carbon intensity<sup>1</sup> between 2015 and 2030. The other factors will be the reduction in sales of petroleum products **coupled with an increase in gas** production (particularly LNG) and sales of products derived from biomass. Lastly, lower emissions from our facilities will contribute to 10% of the intensity<sup>1</sup> reduction. ■

1. Lifecycle carbon intensity of energy products sold. See report's glossary for further details. 2. Biofuels, biogas, hydrogen and e-fuels/e-gas.

# Supporting Our Customers in their Decarbonization Journey



**A**s a producer of renewable power, biogas and biofuels, a supplier of natural gas and electricity and a leader in electric mobility, we are also helping our customers reduce their emissions with our customized solutions and developing CO<sub>2</sub> storage solutions for industrial customers.

## HIGHLIGHTS ✓

### **Delivery of Battery Energy Storage System (BESS) replacement for diesel-powered backup at Microsoft data center**

Saft, a subsidiary of TotalEnergies, has delivered a battery energy storage system (BESS) to replace diesel backup power generators at Microsoft's sustainable data center. The new large-scale BESS formed by 4 groups of 4 MWh each will provide 80 minutes sustainable supply in case of grid failure.

### **Partnership with Saint-Gobain for a Power and Biomethane Purchase Agreement**

TotalEnergies has signed in 2023 a new 15-year renewable Power Purchase Agreement (PPA) with Saint-Gobain. This is the second long-term solar power supply agreement designed to help decarbonize the power consumption of the building materials company's 125 industrial sites in North America. Under the 300 MW PPAs in North America, TotalEnergies will supply clean energy from its Danish Fields Solar farm (Texas), helping offset Saint-Gobain's North American Scope 2 CO<sub>2</sub> emissions from electricity by 90,000 metric tons per year.

Established in 2022, TotalEnergies OneB2B Solutions has more than thirty experts who assist our largest customers across nearly a dozen industries in fulfilling their ambitions for the energy transition, thanks to solutions tailored to their needs. Over the past 2 years, we engaged 334 large B2B clients on their Scope 1+2. ■

A 100 GWh Biomethane Purchase Agreement for a three-year period starting in 2024 has also been signed in 2023. The biomethane will be produced by TotalEnergies at its BioBéarn biomethane plant, which came on stream at the beginning of the year and whose production is certified sustainable by ISCC<sup>1</sup> under the highest sustainability criteria of the European Union REDII Directive. By acquiring the Guarantees of Origin, and thanks to their sustainable certification, Saint-Gobain will be able to attest, within the framework of the EU Emissions Trading Scheme<sup>2</sup>, to the decarbonization of its energy consumption in France.

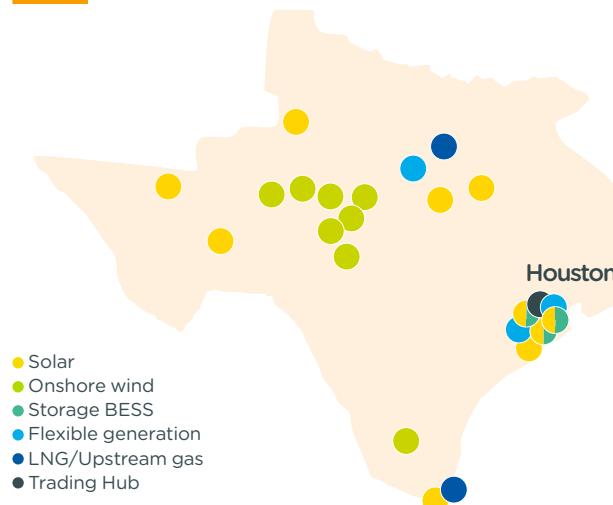
### **Semiconductor market - Semi Climate Consortium membership**

In 2023, TotalEnergies joined the Semiconductor Climate Consortium Energy Collaborative. The fast-growing semiconductor industry has an important role to play in the energy transition. The Company is joining the leaders in this value chain to accelerate their use of renewable energies and the reduction of the carbon intensity of networks in the countries where they produce, particularly in the Asia-Pacific region.

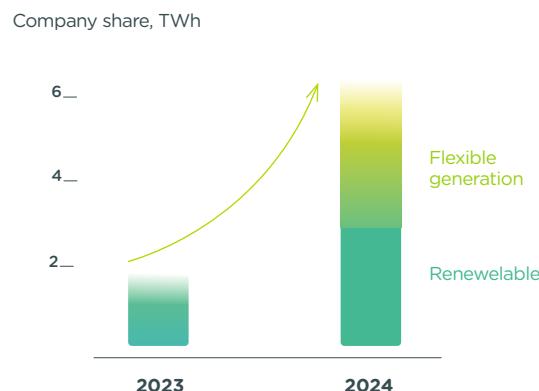
1. International Sustainability Carbon Certification. 2. EU Emissions Trading System (EU ETS).

## FOCUS TEXAS, UNITED STATES: MULTI-ENERGY INTEGRATION

### MAIN ASSETS



### ELECTRICITY GENERATION



Texas is the 2<sup>nd</sup> largest state in the United States in terms of surface area and population (~30 million), and the 2<sup>nd</sup> largest in terms of electricity consumption (nearly 445 TWh in 2023). TotalEnergies set up operations there in 1957 and has built up a strong position with nearly 2,000 employees. The Company deploys there its strategy based on 2 key pillars: Oil & Gas, mainly LNG, and Integrated Power.

#### Focus on gas - Upstream LNG integration

After our historical roots with the Port-Arthur refining and petrochemicals platform and our Upstream assets in **Barnett**, TotalEnergies is expanding in the LNG segment through the **Rio Grande LNG** liquefaction terminal project in South Texas, which has all the necessary permits and for which the investment decision for the 1st phase (17.5 Mtpa) was made in July 2023. Start-up is scheduled for 2027. TotalEnergies shall offtake 5.4 Mtpa of LNG for 20 years, which brings the Company's US LNG export capacity to more than 15 Mtpa by 2030.

#### Focus – Integrated Power

The Texas electricity market is the 2nd largest in the United States and is expected to grow at a rate of 2%/year. It is mainly managed by the Electric Reliability Council of Texas (ERCOT), which oversees the electrical grid. With such a congested network, prices are set at its 4,500 nodes. Liquidity and volatility are among the highest in the country, with spark spread levels particularly high in summer (in contrast to our European electricity portfolio, which is more stressed in winter). This market offers numerous opportunities for renewable energy and flexible production. TotalEnergies has built up a 4 GW portfolio of renewable assets in this market, supplemented with gas-fired power plants. Indeed TotalEnergies acquired the US company TexGen holdings three gas-fired power units representing 1.5 GW of electricity generation capacity in Texas. The mix of renewable and flexible assets, including batteries (300 MW installed), will enable us to meet our customers' expectations for electricity that is less and less carbon intensive and available 24/7. ■

#### The gas value chain

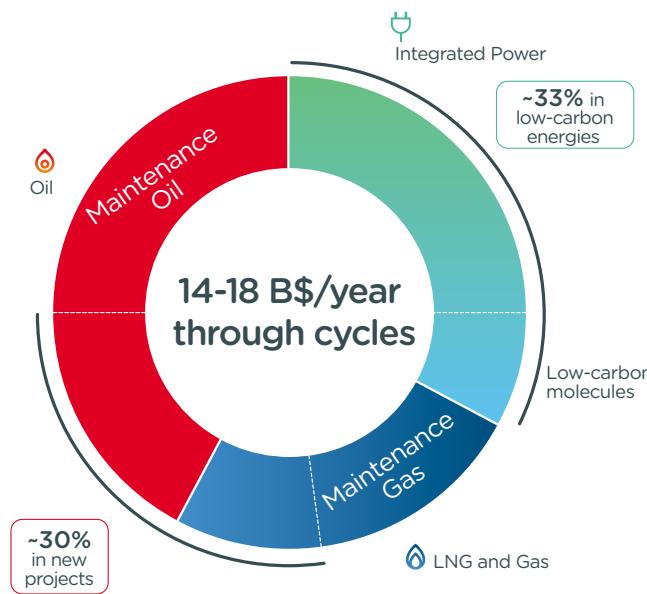


#### The electrical value chain



# Disciplined and Sustainable Investments to Support our Strategy

## INVESTMENT STRATEGY



We are maintaining an annual capital expenditure target of \$14-18 billion over the next 5 years. Spending on low-carbon energy will represent 1/3 of our investments, more than new Oil & Gas projects (~30%).

TotalEnergies invested \$16.8 billion in 2023, including 35% for low-carbon energy mainly in power.

In 2024, we plan to invest between \$17 and \$18 billion, including a further \$5 billion for Integrated Power.

Consistent with our commitment to build a multi-energy Company, we have begun publishing financial indicators for the Integrated Power segment from April 2023.

### Continuing to invest with discipline

In a global economic context marked by inflation, it is essential to maintain our investment criteria to ensure the profitability and resilience of our portfolio. Each material investment project is assessed taking into consideration the aims of the Paris Agreement on the basis of the following criteria:

- project profitability is analyzed in a hydrocarbon price scenario compatible with the Paris Agreement objectives of limiting temperature rise to "well below 2°C" and with a carbon price of \$100 per ton (or the prevailing price if higher in a given country);

- for new Oil & Gas projects (greenfield projects and acquisitions), the intensity of Scope 1+2 greenhouse gas emissions is compared, depending on their nature, to the intensity of the average greenhouse gas emissions of Upstream production assets or that of various Downstream units (LNG plants, refineries) of the Company;

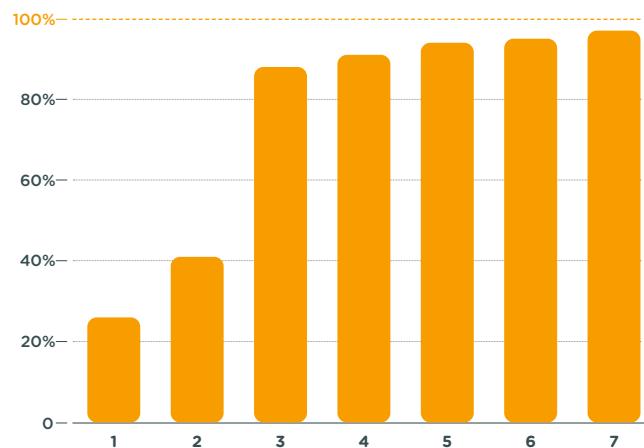
- as of 2024, the threshold has been lowered to 18 kg CO<sub>2</sub>e/boe, versus 19 kg CO<sub>2</sub>e/boe previously – evidence of the effectiveness of our criteria. For additional investments in existing assets (brownfield projects), the investment will have to lower the Scope 1+2 emissions intensity of the asset in question. The goal is for each new investment to contribute to lowering the average intensity of the Company's Scope 1+2 greenhouse gas emissions in its category.

- For projects involving other energy and technologies (biofuels, biogas...), GHG emission reductions are assessed based on the amount by which they will reduce the carbon content of our sales. ■

## APPROVED OIL & GAS PROJECTS

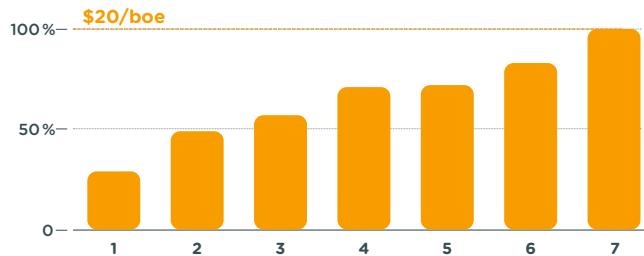
### GHG emission intensity

% vs. portfolio average



### Technical costs

- Technical costs include operating costs and investment costs.



### HIGHLIGHTS ✓

In 2023, after evaluation according to these criteria, 43 investments have been validated. The most significant by category are:

#### Upstream Oil & Gas Division

Development of Phase 1 of the AGUP project in Iraq, as part of our GGIP project (see focus p. 17), launch of the Mabruk restart project in Libya, extension of the Dalia and Kaombo fields in Angola.

#### Liquefied natural gas

In June 2023, TotalEnergies signed a framework agreement with U.S.-based NextDecade to participate in the development of the Rio Grande LNG (RGLNG) project, a liquefaction plant, whose construction has started in July 2023 in southern Texas.

#### Integrated Power

Various renewable electricity projects (PV, wind, hydro and BESS) resulting from the acquisition of stakes in Casa dos Ventos (Brazil) and Rönesans Enerji (Turkey and Total Eren); 3GW marine concession in Germany and 2.7 GW in the USA (New York and New Jersey), BESS installations in Feluy & Antwerp (Belgium) and CottonWood (USA), PV power plants in Clinton (Ohio), Brazoria (Texas), and Guillena in Spain.

#### Low-carbon molecules

Hydrogen: acquisition contracts for the needs of the Normandy platform and the Leuna refinery; Biogas: final investment decision taken for the BioNorrois unit 153 GWh/year; SAF: doubling to 285 kt of production capacity at Grandpuits, France (Galaxie extension).

#### CCS

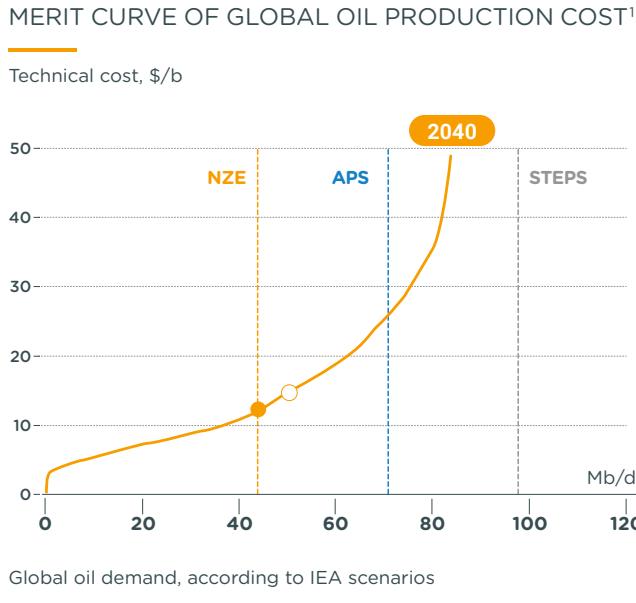
Permit application in Norway for the Luna project.

#### Disposals

In Canada, TotalEnergies no longer holds any oil sands interests as of November 2023 following the sale to ConocoPhillips of its 50% interest in Surmont, as well as the sale to Suncor of all of the shares of its subsidiary TotalEnergies EP Canada, including its interest in the Fort Hills oil sands asset.

In Germany and the Netherlands, sale to Alimentation Couche-Tard of all our 1,580 service stations. In Belgium and Luxembourg, a joint venture (TotalEnergies 40% and Alimentation Couche-Tard 60%) to operate more than 600 service stations.

# A Resilient Portfolio



1. Source: Rystad, IEA WEO 2023 scenarios. 2. Peers: BP, Chevron, ExxonMobil, Shell. 3. Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

**T**otalEnergies has strengthened the resilience of its portfolio through very active portfolio management in recent years: the Upstream portfolio has seen a 50% portfolio change since 2015, ensuring an oil reserves replacement ratio above 100% over 2015-2023.

Our portfolio has a low breakeven point, in line with the Company's objective of keeping it below \$30/b (the Company's organic cash breakeven point before dividends is \$22.2/b in 2023), which ensures the competitiveness of its resources. For its Upstream Oil & Gas activities in 2023, TotalEnergies has the lowest production cost per barrel of around \$5.5/boe among its peers<sup>2</sup> and its GHG emissions intensity (Scope 1+2) is falling to 18 kg CO<sub>2</sub>e/boe in 2023 (compared with 19 in 2022)<sup>3</sup>. The average life of the Company's proved and probable Oil & Gas reserves is 18 years, and the discounted value of its Upstream Oil & Gas assets over 20 years old represents less than 15% of their total value.

## Risks of stranded assets

In June 2020, TotalEnergies determined that among its Upstream assets, only the Fort Hills and Surmont oil sands projects in Canada could be classified as stranded assets, meaning assets with reserves beyond 20 years and high production costs, whose overall reserves might therefore not be produced by 2050. TotalEnergies has sold these assets in 2023. This portfolio management approach allows TotalEnergies to mitigate the risk of stranded assets in the future if the risks of a structural decline in demand for

Oil & Gas materialize faster than estimated as a result of stricter global environmental regulations and constraints and the resulting changes in consumer preferences.

As shown on the left hand side cost merit order curve of production costs for 2040, compared to the demand expected under various IEA scenarios, TotalEnergies' portfolio of Upstream Oil & Gas projects has an average technical cost that places it among the 50 Mb/d lowest-cost for these horizons, thanks in particular to long plateau oil assets with low production costs.

## Sensitivity to CO<sub>2</sub>, Oil & Gas prices

TotalEnergies assesses the robustness of its portfolio, including new material investments, based on relevant scenarios and sensitivity tests.

Each material investment, including in the exploration, acquisition or development of Oil & Gas resources, as well as in other energies and technologies, is reviewed in relation to the objectives set out in the Paris Agreement, so that every new investment enhances the resilience of the Company's portfolio.

Even though CO<sub>2</sub> pricing does not currently apply in all the countries where the Company operates, TotalEnergies includes, as a base case, a minimum CO<sub>2</sub> price of \$100/ton in its investment criteria (or the prevailing price in a given country, if higher); beyond 2029, the CO<sub>2</sub> price is increased by 2%/year.

- Assuming a CO<sub>2</sub> price of \$200/ton from 2024 and an annual increase of 2% beyond 2029, i.e. an increase of \$100/ton compared to the base case scenario from that date onwards, TotalEnergies estimates a negative impact of around 15% on the discounted present value of all its assets (Upstream and Downstream).
- Compared with the reference scenario used to evaluate investments (Brent at \$50/b), the use of the IEA's<sup>3</sup> NZE price scenario would lead to a present value of all the Company's assets (Upstream and Downstream) that is around 10% lower.

### **Impairment of Upstream assets**

In addition, to ensure robust accounting of its assets in the balance sheet, the Company calculates the impairment of its Upstream assets on the basis of an oil price trajectory that stabilises until 2030, then decreases linearly to reach 50 \$<sub>2023</sub>/b in 2040, and then decreases from 2040 onwards to the price adopted in 2050 by the IEA's NZE scenario, i.e. 25.5 \$<sub>2023</sub>/b. Gas prices in Europe and Asia decline and stabilise from 2027 until 2040 at levels lower than current prices, with the Henry Hub remaining at \$3 \$<sub>2023</sub>/MMBtu over this period. They then all converge towards the prices in the IEA's NZE scenario in 2050. ■

### **UNCONVENTIONAL OIL & GAS**

Unconventional Oil & Gas are defined by the EIA<sup>4</sup> as hydrocarbons that are "*produced by means that do not meet the criteria for conventional production*" ie "*by a well drilled into a geologic formation in which the reservoir and fluid characteristics permit the oil and natural gas to readily flow to the wellbore.*" According to UNFC<sup>5</sup>, "*examples include CBM, low permeability deposits such as tight gas (including shale gas) and tight oil (including shale oil), gas hydrates and natural bitumen*".

In 2023, these non-conventional hydrocarbons accounted for 9.7% of our production and less than 5% of our consolidated turnover. In addition, TotalEnergies no longer produces oil from tar sands since the divestment of its Surmont and Fort Hills Canadian assets at the end of 2023. The Company also exited its extra-heavy oil development projects in Venezuela's Orinoco Belt in 2021.

Ultra-deep offshore, defined as water depths in excess of 1,500 m, which in the 2000s represented the technical

limit for drilling and production facilities (since then largely exceeded), does not fall into the category of non-conventional hydrocarbons: in fact, reservoirs located in these areas are developed using facilities that employ a continuum of conventional technologies. It is the combination of very high-pressure reservoirs and very deep-water depths that can present increased risks. TotalEnergies does not intend to develop this type of asset.

Similarly, the mere fact that an oil or a gas field is located in an Arctic zone is not sufficient to qualify it as unconventional, if it is operated using conventional technologies. However, the Company recognizes the particular environmental sensitivity of certain Arctic zones. For this reason, in 2012 we undertook not to explore any oil fields in Arctic sea ice; a list of our licenses in Arctic zones is available on the Company's website.

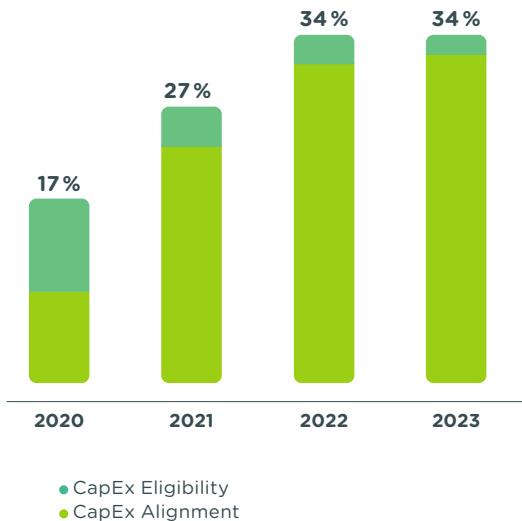
<sup>3</sup>World Energy Outlook 2023, Table 2.2 Fossil fuel prices by scenario (p. 96). <sup>4</sup> See definition by the Energy Information Administration, a federal agency within the U.S. Department of Energy.

<sup>5</sup> See United Nations Framework Classification for Resources to Petroleum, "Supplementary Specifications for the application of the United Nations Framework Classification for Resources to Petroleum" pages 8 and 22, points 9, 102, 103, 104.

# 2023 Taxonomy: a Company in Transition

## CAPEX<sup>1</sup> ELIGIBILITY & ALIGNMENT

Proportional view<sup>2</sup>



ursuant to European Union regulations, TotalEnergies publishes the proportion of eligible activities and aligned activities in the turnover and CapEx<sup>1</sup> indicators, across the scope of the entities controlled by TotalEnergies, as well as a proportional view, proposed by the delegated regulation of July 6, 2021. This proportional view includes the contribution of joint ventures and companies in which TotalEnergies has significant influence, accounted for by the equity method.

### Controlled scope – Proportional view

Given the size of the Company and its partnership-based development model across the integrated electricity value chain, the proportional view is more relevant than the controlled scope. Eligible or aligned capex represented more than 30% of the Company's investment in 2023 in the proportional view – confirmation of the growth dynamic underway since 2020.

### Our main eligible activities at TotalEnergies

#### In electricity and renewables:

- activities related to renewable energy (wind, solar, bio-energy and hydropower), as well as battery production;
- activities related to new energy infrastructure for low-carbon mobility (charge points for electric vehicles, hydrogen filling stations);
- electricity generation from natural gas (combined-cycle gas turbine power plants).

#### In biofuels and chemicals:

- activities related to the manufacture of biofuels for use in transportation and certain petrochemical activities, including biopolymers production and mechanical or chemical recycling of plastics.

The Company's other main eligible activities are the manufacture of biogas via anaerobic digestion of biowaste and activities related to carbon sinks (carbon capture and storage of CO<sub>2</sub>, natural carbon sinks).

Detailed tables are presented in the *Performance Indicators* section. ■

1. CapEx refers to the taxonomy standard. A reconciliation table is provided in the 2023 Universal Registration Document, Section 5.4.6. 1. Proportional view, as per EU delegated act 2021/2178.

# Evaluation of our Transition by Third-Parties

## OUR EXTRA-FINANCIAL RATINGS

December 2023		
		Ranking vs our peers <sup>1</sup>
MSCI ESG Research	AA	2 <sup>nd</sup> (tie)
SUSTAINALYTICS	28 Medium risk	1 <sup>st</sup>
ISS ESG►	B- Prime	1 <sup>st</sup> (tie)
Moody's   ESG Solutions	65 Advanced	n/a
S&P Global	74	1 <sup>st</sup>
CDP DRIVING SUSTAINABLE ECONOMIES	A-	1 <sup>st</sup> (tie)

**T**oday, TotalEnergies is recognized in the rankings of the main extra-financial rating agencies as a benchmark in its sector for the quality of its consideration of environmental issues, social responsibility requirements and good governance. TotalEnergies is also praised for its transparency in these areas. In 2023, we have improved the majority of our extra-financial ratings.

We also maintain our presence in a number of extra-financial indices made up of the best-performing companies in terms of sustainable development. In 2023, TotalEnergies is in particular included in the FTSE4Good index, the DJSI World and DJSI Europe indexes, the MSCI Europe ESG Leaders, the MSCI World ESG Screened and the MSCI Europe ESG Screened.

### MSCI

In their enhanced Implied Temperature Rise (ITR) model seeking to align with the best practice guidance from the Glasgow Financial Alliance for Net Zero (GFANZ), MSCI have estimated in February 2024 that TotalEnergies, with a 1.8°C ITR score (the lowest among its peers), is in line with the Paris agreement's goal of limiting global mean temperature to well below 2°C.

**Several benchmark rankings** in 2023 and early 2024 also confirmed the progress made by the Company in the field of energy transition and sustainable development, in particular:

- 1. Carbon Tracker Absolute Impact 2023:** in 2023, TotalEnergies climbed to 2<sup>nd</sup> place out of 25 (up 1 place on 2022) in this report, which evaluates the emissions targets of the 25 biggest Oil & Gas companies.
- 2. Mercom Capital Group ranking:** TotalEnergies is the 1<sup>st</sup> solar developer in the world.
- 3. Ecovadis:** in 2023, TotalEnergies obtained a score of 83/100 for its subsidiary SAFT (which obtained Platinum status in 2023 and is positioned in the 99<sup>th</sup> percentile), 78/100 for its Refining-Chemicals branch, and 79/100 for its Marketing & Services branch.
- 4. Workforce Disclosure Initiative (WDI):** score of 87% in 2023 (+1% versus 2022), above the industry average (66%). The WDI assesses the transparency of companies' human resources management.
- 5. Tax transparency VBDO ranking:** +1 point versus 2022, top 10 ranking maintained. ■

1. Peers : BP, Shell, Exxon, Chevron, Eni, Equinor. 2. CDP : 1<sup>st</sup> for CDP Water and improvement in our rating; 1<sup>st</sup> tie for CDP Climate, same rating than 2023.



# Energy & Climate: Our Orderly Energy Transition

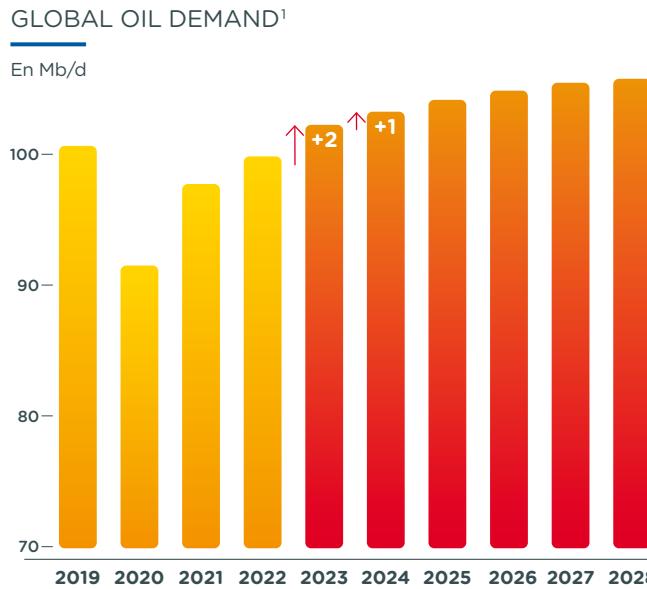
- 28 Climate Impact of Our Strategy: Our 2023 Progress and 2025-2030 Objectives
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# Climate Impact of Our Strategy: Our 2023 Progress and 2025-2030 Objectives

			Objectives			
			2022	2023	2025	2030
<b>Scope 1+2 Emissions on Operated Activities</b>  <b>Net Zero in 2050</b>	<b>Scope 1+2 emissions</b>	Mt CO <sub>2</sub> e vs 46 Mt in 2015	<b>40</b> -13%	<b>35</b> -24%	< 38	25-30 <sup>1</sup> > -40% <sup>1</sup>
	<b>Methane emissions</b>	kt CH <sub>4</sub> vs 64 kt in 2020	<b>42</b> -34%	<b>34</b> -47%	- 50%	- 80%
<b>Indirect Emissions</b>  <b>Net Zero in 2050, together with society</b>	Lifecycle Carbon intensity of energy products sold <sup>2</sup> Scope 1+2+3	100 in 2015	- 12%	- 13%	- 15%	- 25%
	<b>Scope 3 Worldwide<sup>4</sup></b>	Mt CO <sub>2</sub> e 410 Mt in 2015 <i>out of which Scope 3 Oil 350 Mt in 2015</i>	<b>389<sup>3</sup></b> 254 <sup>3</sup> -27%	<b>355</b> 227 -34 %	< 400	< 400 - 40 %

1. Net emissions, including nature-based carbon sinks from 2030. 2. Lifecycle carbon intensity of energy products sold. See report's glossary for further details. 3. Excluding Covid impact for first half 2022. 4. GHG Protocol – Category 11. See report's glossary for further details.

# Producing Oil Differently: Focus on Low-cost and Low-emission Oil Assets



In addition, it will evolve in a differentiated way according to the specific energy transition roadmaps of the various countries.

Thus, demand for oil could start to decline around 2030, but at a slower rate than the current natural decline rate of existing fields (around 4% per year).

TotalEnergies therefore believes that new oil projects are still needed to meet this demand and to keep prices at an acceptable level in order to create the conditions for a just transition that allows people time to adapt their energy use.

In 2023, TotalEnergies produced 1.4 Mb/d of oil, equivalent to its 2019 level, representing around 1.5% of world production.

The first responsibility of TotalEnergies as an oil producer is to produce differently, meaning while minimizing emissions.

To that end, we approve hydrocarbon projects on the basis of performance criteria, notably technical costs and carbon intensity (Scope 1+2) - (see p. 21-22). We operate our fields in accordance with strict requirements concerning safety, emissions reduction and environmental impact. The cash flow generated by these Oil & Gas activities contributes to accelerating our investments in renewable energy. ■

**I**n 2023, global demand for petroleum products reached 101.8 Mb/d, i.e. + 2.3 Mb/d compared to 2022, and should continue to grow over the decade according to the IEA (105.7 Mb/d by 2028). These demand forecasts remain dependent in particular on population and economic growth, market penetration pace of low-carbon technology innovations such as electric vehicles and changes in behavior.

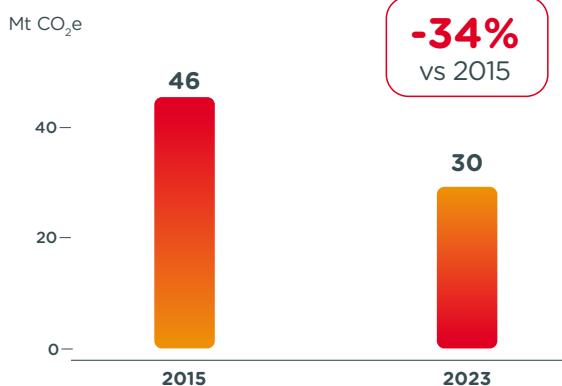
## HIGHLIGHTS ✓

- In Brazil, we are pursuing our strategy of investing in low-cost, low-carbon assets, with the Mero field. A first floating production storage and offloading vessel (FPSO) started up in May 2022, followed by a second at the end of December 2023. These will be followed by two more staggered until 2025. We are also present in the offshore Atapu and Sepia fields, corresponding to low-cost, low-emission reserves, where a decision on the production start-up of two new FPSO is currently being studied.
- In Iraq, the GGIP (Gas Growth Integrated Project) is a major multi-energy project (see *Focus on Iraq*).
- TotalEnergies is focusing its exploration investments on oil prospects with low technical costs, low GHG emissions and short lead times. In particular, in 2023 we continued to evaluate and assess the discoveries made in Suriname in 2020, enabling the launch of development studies for a major 200 kb/d oil project on Block 58, offshore Suriname. In 2023, TotalEnergies also continued to evaluate and appraise the discovery made in Namibia in 2022.
- In Canada, TotalEnergies sold its oil sands interests in November 2023 in order to focus its capital allocation on assets with a low breakeven point and low-carbon intensity.

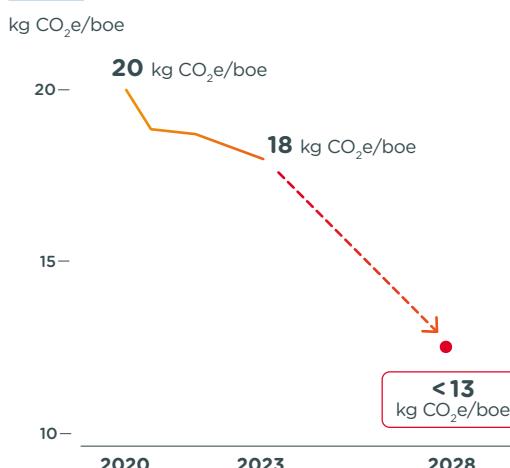
1. Source IEA Oil 2023 (June 2023).

# Relentlessly Reducing Our Scope 1+2 Emissions, Oil & Gas

SCOPE 1+2 FROM OPERATED  
OIL & GAS FACILITIES



SCOPE 1+2 UPSTREAM INTENSITY,  
EQUITY BASIS



ur primary responsibility as a producer of fossil fuels is to substantially reduce emissions on our facilities. We are resolutely continuing to reduce emissions from our operated sites. Across the 2015 scope of our Oil & Gas activities, emissions from our operated assets fell by more than 34% from 2015 levels, dropping from 46 to 30 Mt CO<sub>2</sub>e in 2023 (a decrease by 36% for Oil & Gas operated upstream and a decrease by 32% in Refining & Chemical).

In 2023, with more than 140 GHG emissions reduction projects coming to fruition, we reduced our emissions by 1.5 million tons of CO<sub>2</sub>e across our operated assets.

These ongoing reduction efforts have made it possible to reduce the Scope 1+2 equity intensity of our Upstream Oil & Gas assets, from 20 kg CO<sub>2</sub>e/boe in 2020 to 18 kg CO<sub>2</sub>e/boe in 2023<sup>1</sup>. These results put us among the players with the best intensities in the industry. ■

## HIGHLIGHTS ✓

### Nigeria: the realization of a major project to eliminate routine flaring

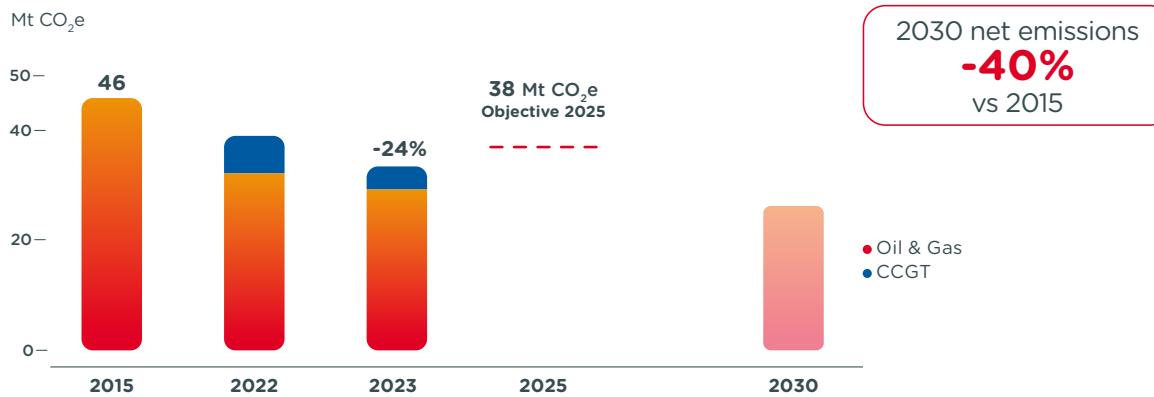
Eliminating routine flaring is a priority to reduce CO<sub>2</sub> and methane emissions. Since 2000, TotalEnergies has made a commitment to no longer use it for its new projects. As founding member of the World Bank's "Zero Routine Flaring by 2030" initiative since 2014, the Company is committed to ending this type of flaring by 2030.

In Nigeria, the OML100 asset was representing in 2020 57% of E&P global routine flaring. The end of routine flaring on the OML100 offshore block became effective in 2023 following the implementation of a vast project which was realized during planned turnaround. This was the last TotalEnergies asset in Nigeria with routine flaring by design (original design, facilities commissioned in 1993). Significant modifications to the installation were carried out in order to send the gas produced to the Bonny LNG plant instead of being flared (excess gas exported to NLNG plant and valorized). CO<sub>2</sub> reduction is around 330 kt CO<sub>2</sub>e/y.

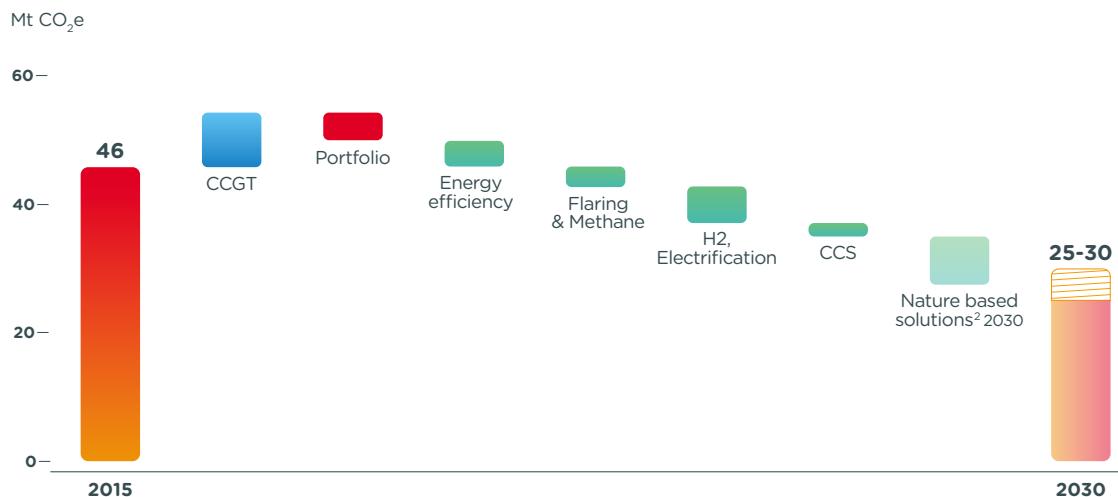
1. Equity Oil & Gas Upstream intensity is calculated excluding integrated LNG assets.

# Scope 1+2 Emissions Reduction by 2030

## SCOPE 1+2 EMISSIONS FROM OPERATED FACILITIES



## SCOPE 1+2 FROM OPERATED FACILITIES: LEVERS TO REACH OUR -40% TARGET IN 2030<sup>1</sup>



## Scope 1+2 emissions reduction objectives

TotalEnergies reaffirms its decarbonization objective, which aims to reduce its Scope 1+2 net emissions by -40% to 2030 compared to 2015, net of 5-10 Mt of natural carbon sinks. Our objectives include emissions generated by the growth strategy in electricity we have pursued since 2015, which has prompted us to create a flexible power generation portfolio of plants (CCGT).

In 2023, GHG emissions from our operated assets were 24% lower than in 2015, standing at close to 35 million tons of CO<sub>2</sub>e.

Between 2022 and 2023, the reduction in these emissions is 13%. It is mainly due to lower utilization rate of CCGTs, emissions reduction projects, such as for example the reduction of burning in Angola and Nigeria, and the improvement of energy efficiency (see next page).

To achieve our 2030 target, we are mobilizing every tool at our disposal to avoid and reduce emissions from our operations. Compensation from natural carbon sinks will only begin from 2030 onwards, to offset residual emissions in pursuit of our objective, on the basis of a consumption of about 10% of our stock of carbon credit units per year. ■

1. Net of nature-based carbon sinks. 2. NBS credits will be used from 2030, from 5 to 10 Mt/y.

# Our Energy Efficiency plan: \$1 Billion over 2 years

## ENHANCING ENERGY EFFICIENCY AT OUR OPERATED FACILITIES



### OPERATIONS OPTIMIZATION

- In E&P<sup>1</sup>, deployment of high-performance air filters to improve the operation of gas turbines on all our operated assets.
- Optimization of steam networks in all refineries and petrochemical sites.
- CCGT shutdown and restart procedures in France revised to reduce GHG emissions.



### ELECTRICITY AND RENEWABLES

- In Argentina, preparation for the connection of the Neuquén E&P<sup>1</sup> installations to the electricity network.
- In Nigeria, launch of the solarization project on OML58 (Upstream asset).
- In the Marketing & Services segment, pursuing and accelerating the solarization of our service station networks which can be combined with storage capacities (batteries).



### DIGITAL AND MONITORING

- Digital twins of our CCGTs developed to optimize their operation.
- In the Marketing & Services business unit in France, implementation of electrical sub-metering on new station sites to manage consumption by zone on the same installation.



### ASSET DESIGN IMPROVEMENT

- In European refineries: electrification of compressors, thermal integration and optimization of furnace efficiency.
- In our CCGTs in France, installation of variators on pumps and compressors.

### Energy efficiency plan - 2023 progress

Generating energy savings in our operations is beneficial in several ways: we contribute to the collective campaign for energy efficiency, we help to reduce our carbon emissions and we lower our costs.

In September 2022, TotalEnergies launched a plan to accelerate energy efficiency gains at its operated sites worldwide. We are investing \$1 billion in efforts to further reduce our energy use.

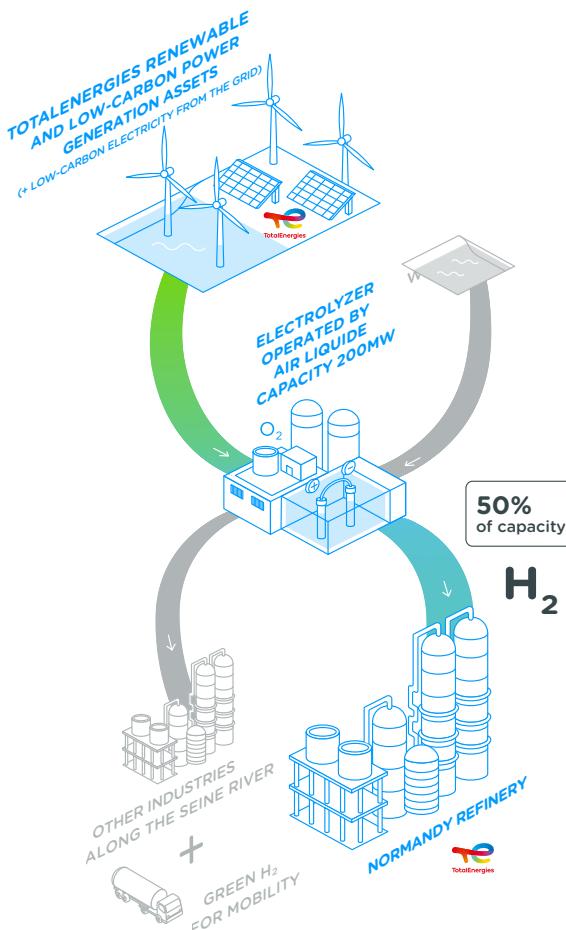
This plan, centered on four key levers, will support the measures adopted over the past several years within the Company's business segments. Each business segment has developed a plan to accelerate its energy savings, with more than 150 initiatives logged at Exploration & Production, over 200 projects at Refining & Chemicals and more than 40 initiatives at Marketing & Services and Gas, Renewables & Power.

To keep up with these efforts, a growing number of sites are ISO 50001 certified. The projects already identified which will be launched in 2024 should make it possible to achieve the reduction objective of 2 Mt CO<sub>2</sub>e. ■

1. Exploration & Production.

## FOCUS REFINING-CHEMICALS: A PRACTICAL AND AMBITIOUS DECARBONIZATION PATHWAY

### GREEN HYDROGEN PRODUCTION FOR NORMANDY REFINERY



Our actions aiming to reduce direct emissions from operated Oil & Gas activities target the entire value chain including our Refining & Chemicals activity for which Scope 1+2 emissions from operated sites have been reduced by 32% between 2015 and 2023.

There are multiple levers used to reduce emissions: continuous improvement in energy efficiency, replacement of consumed hydrogen by green hydrogen, electrification of rotating machines, replacement of liquid fuels by natural gas and use of green electricity.

#### Here are some concrete examples of current projects:

##### Improving energy efficiency thanks to our 2-years plan

More than 200 projects (associated with a 400 M\$ budget), have been implemented to reduce the segment's energy consumption by 5% (reduction of flaring thanks to state of the art equipment's, digital energy management system, improved thermal integration, optimization of processes such as exchanger fouling management, and assets design improvement such as Normandy reformer design).

##### Decarbonizing hydrogen in our European assets

The ambition of Refining & Chemicals segment is to substitute by 2030 the 500 kt/y hydrogen used in European refineries by green H<sub>2</sub>, in the framework of EU RFNBO regulation. This ambition started with a partnership which aims for the construction and management of an electrolyzer by Air Liquide (see diagram), and the supply by TotalEnergies of around 700 GWh/year of renewable electricity to power it. This action of decarbonizing hydrogen in our European assets would enable in 2030 up to 5 Mt CO<sub>2</sub>/y avoided emissions.

#### Electrification

Progress is made in the electrification of rotating machines (30 MW, GHG emissions reduction of 100 kt CO<sub>2</sub>e/year), heat tracing of pipelines, and feed preheaters.

#### Shift to Green Power supply

The ambition is to have our operated facilities in Europe and the United States benefitting from the supply of 100% green electricity from 2025 (US and Europe Refining Scope 2 power ca. 2.5 Mt CO<sub>2</sub>). It will be enabled by our Go Green initiative aiming to cover all industrial sites' power needs with green electricity in Europe and the US (~6.5 TWh/y). Hence in Europe, ~ 5 TWh/y will be supplied to R&C assets from European renewable portfolio whereas in the US, ~ 1.5 TWh/y will be supplied to R&C assets from renewable portfolio in Texas. This action of shifting to green power supply would enable in 2025 a 2.5 MtCO<sub>2</sub>/y emission reduction (~100% of Scope 2 power) representing a 10% emission reduction vs 2015 RC Scope 1+2.

#### Next step: Carbon Capture on high emitters

A next step of our decarbonization pathway in Refining & Chemicals activity is carbon capture. As an example, a study at conceptual phase is on-going to study the capture of CO<sub>2</sub> from Antwerp FCC Unit 2 and its export for sequestration (in North Sea underground storages). This action could enable a 0.8 Mt CO<sub>2</sub>/y emission reduction. ■

# Liquefied Natural Gas: a Key Fuel for the Energy Transition

A GLOBAL AND INTEGRATED LNG TOP PLAYER

## Production & Purchasing

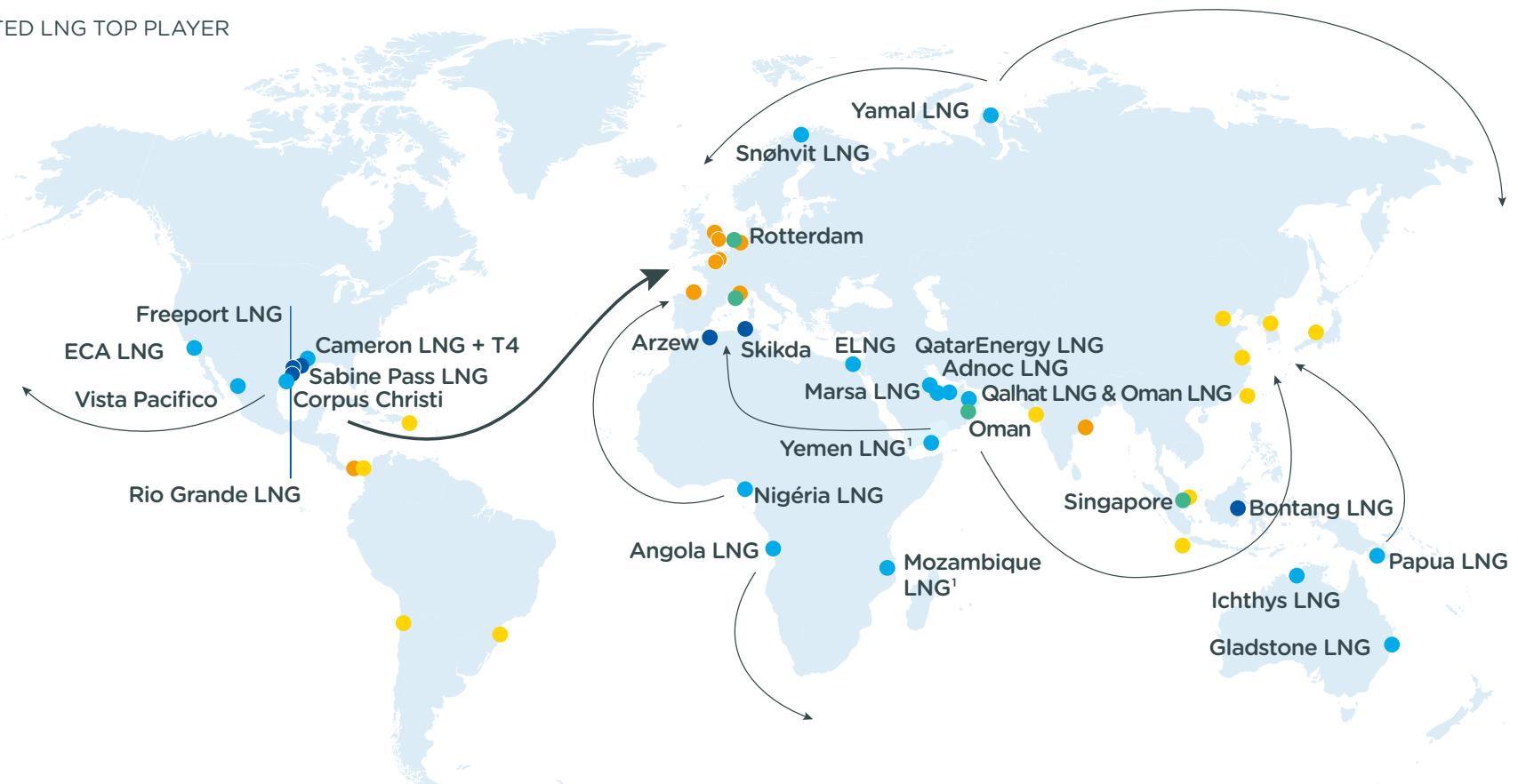
- Production share
- Supply medium- and long-term

## Imports & Sales

- Regasification terminals operational or planned
- Medium and long-term Sales

## Energy transition in shipping

- Maritime bunkering hub



1. Force majeure.

## World 3<sup>rd</sup>

LARGEST LNG COMPANY THANKS TO A DIVERSIFIED PORTFOLIO

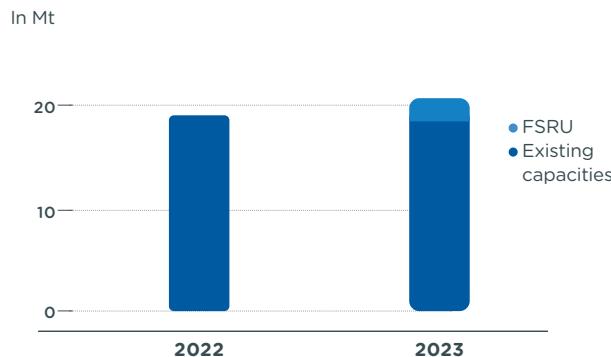
## 44.3 Mt

LNG SALES IN 2023

## +50%

EQUITY + OFFTAKE GROWTH  
2023-2030 EXCLUDING RUSSIA,  
EXCLUDING SPOT VOLUMES

## GROWING LNG REGASIFICATION CAPACITY IN EUROPE



**I**n the gas markets, TotalEnergies focuses on Liquefied Natural Gas (LNG), which can be shipped everywhere in the world and thus contributes to energy security, as it has been the case in Europe since 2022 with the strong reduction of Russian pipeline gas deliveries.

The growth of renewable electricity, intermittent and seasonal by nature, will require an increase in flexible power generation resources. The flexible production of gas-fired power plants, which emit half as much greenhouse gas as coal-fired power plants for the same amount of electricity produced<sup>1</sup>, enables to secure electricity generation which does not depend on weather conditions contrary to renewable energy, and to face demand fluctuations.

In addition, natural gas plays an essential role in reducing emissions from power generation as a replacement of coal, particularly in Asia where this one still accounts for a very large part of the electricity mix of many countries (e.g. 63% in China, 72% in India)<sup>2</sup>.

With diversified positions, and in particular its leading position of exporter in the United States - over 10 Mt in 2023 - TotalEnergies is the 3<sup>rd</sup> world's largest LNG player, with 44 Mt sold in 2023. The Company intends to consolidate its position as an integrated player by developing a first-class portfolio that will enable it to achieve 50% growth in volumes between 2023 and 2030.

## Reducing the carbon footprint of the LNG portfolio

TotalEnergies aims to gradually reduce GHG emissions of the LNG value chain, from gas production to end use. In addition to its efforts to reduce methane emissions (see *following pages*), initiatives are being implemented throughout the whole chain. The electrification of liquefaction plant processes is helping to reduce LNG's carbon footprint today, and tomorrow this reduction will be reinforced by CO<sub>2</sub> capture and storage projects. We are also working to reduce shipping emissions by renewing our fleet of chartered LNG carriers with modern, high-performance vessels. ■

### HIGHLIGHTS ✓

#### North America

Launch of the 15 billion Rio Grande LNG 17.5 Mtpa project.

#### Qatar

Signature of a purchase contracts for 3.5 Mtpa over 27 years with QatarEnergy.

#### India

First delivery of LNG cargo to Dhamra LNG terminal.

#### New floating regasification terminals (FSRUs) in Europe

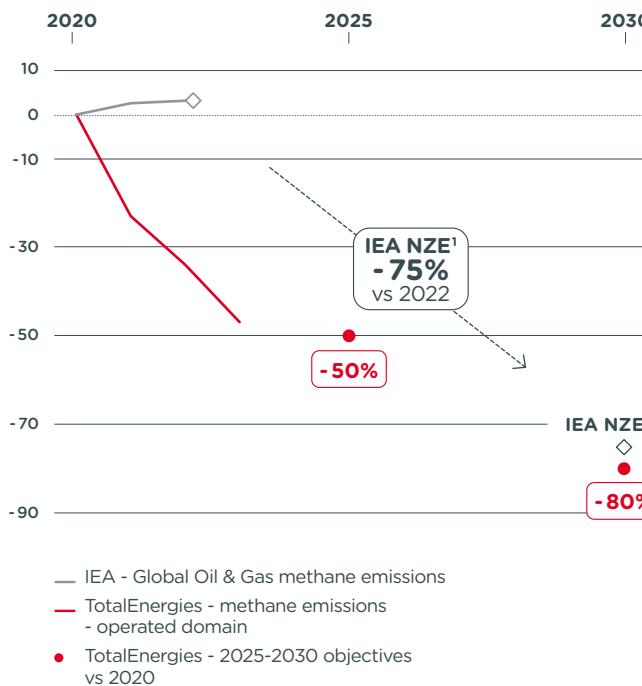
As Europe's leading regasification operator with a capacity of over 20 Mt, TotalEnergies has contributed to the continent's security of supply with the commissioning of two FSRUs in 2023, in Lubmin (Germany) and Le Havre (France).

1. IEA 2023 ; Life Cycle Upstream Emission Factors (Pilot Edition). 2. Source: Enerdata.

# Aiming For Zero Methane Emissions

## METHANE EMISSIONS ON OPERATED FACILITIES

In % vs 2020



1. 2023 Update, "Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach" report.

**M**ethane is a greenhouse gas with a global warming potential 30 times higher than that of CO<sub>2</sub> and a much shorter atmospheric lifetime<sup>2</sup>. This makes reducing methane emissions a priority in efforts to mitigate global warming. To date, more than 150 countries have signed the Global Methane Pledge launched in Glasgow in 2021, which aims to reduce methane emissions by 30% from 2020 levels by 2030. Anthropogenic methane emissions come mostly from energy, waste and agriculture. Around 25%<sup>3</sup> come from the Oil & Gas industry. TotalEnergies believes that it is the industry's responsibility to aim for zero methane emissions by 2030 and wants to set an example for the industry. Our plan is based on three actions: eliminating routine flaring, eliminating vents and repairing leaks as soon as they are detected.

### Continuous excellence in our operations

TotalEnergies has already reduced its operated methane emissions by more than 60% since 2015, date of the Paris Agreement, even though the Oil & Gas industry as a whole has maintained an almost constant level of emissions over this period, according to IEA estimates. In early 2022, we set very ambitious, specific targets for the decade ahead that call for a 50% reduction from 2020 levels by 2025 and 80% by 2030<sup>4</sup>. These targets cover all of the Company's operated assets and go beyond the 75% reduction in methane emissions from Oil & Gas by 2030 (vs 2020) as recommended by the IEA when creating the NZE scenario. TotalEnergies is making rapid progress towards this objective: in 2023, our operated methane emissions were 34 kt,

down 47% vs 2020. TotalEnergies now aims to reach its 2025 target of -50%, one year ahead of schedule, in 2024.

TotalEnergies is a signatory of the Oil & Gas Decarbonization Charter launched at COP28 (see next page), which includes the ambition *"Aiming for near-zero Upstream methane emissions by 2030"*. In line with this collective ambition, TotalEnergies is strengthening its methane intensity<sup>5</sup> target of less than 0.1% by 2030 on its gas facilities, by extending it to all its operated Upstream Oil & Gas facilities.

At the same time, TotalEnergies is fully assuming its leadership role in the fight to collectively reduce methane emissions.

2. Around 12 years compared with centuries for CO<sub>2</sub>. Global Warming Potential of 80 over 20 years and 30 over 100 years (Source: IPCC 6<sup>th</sup> Assessment Report). 3. IEA Global Methane Tracker 2023, <https://www.iea.org/reports/global-methane-tracker-2023>, License CC BY 4.0. 4. Excluding biogenic methane. 5. Methane emissions intensity in relation to commercial gas produced.



## Our drone-based methane detection and quantification technology made available to several national oil companies

TotalEnergies works alongside its partners to implement best practices on its non-operated assets.

The Company is a pioneer in the detection and quantification of emissions in real-life conditions. After deploying its AUSEA (Airborn Ultralight Spectrometer for Environmental Application) drones at all its upstream operated sites worldwide, TotalEnergies has performed in 2023 the first AUSEA flights on non-operated assets during four campaigns in: Qatar, Brazil, Azerbaijan and the United Arab Emirates.

TotalEnergies has also announced in recent months the signing of five cooperation agreements with national oil companies to make its AUSEA methane emissions detection and quantification technology available: Petrobras in Brazil, SOCAR in Azerbaijan, Sonangol in Angola, NNPC<sup>5</sup> in Nigeria and ONGC<sup>6</sup> in India. ■

## HIGHLIGHTS ✓

### OGMP 2.0 Gold standard

In its "An Eye on Methane" report for 2023, the United Nations Environment Programme (UNEP)<sup>7</sup> confirmed TotalEnergies' Gold Standard status for the 3<sup>rd</sup> year in a row, and rated our strategy for engaging partners in our non-operated assets as "all-stars"<sup>8</sup>. Each year, this report reviews the deployment by Oil & Gas companies of the Oil & Gas Methane Partnership's OGMP 2.0 framework, which was created in 2020 to guide reporting on methane in the Oil & Gas industry. The framework encourages companies to continue improving their reporting of operated and non-operated emissions and focuses on performing on-site measurements to verify that estimates are exhaustive and accurate.

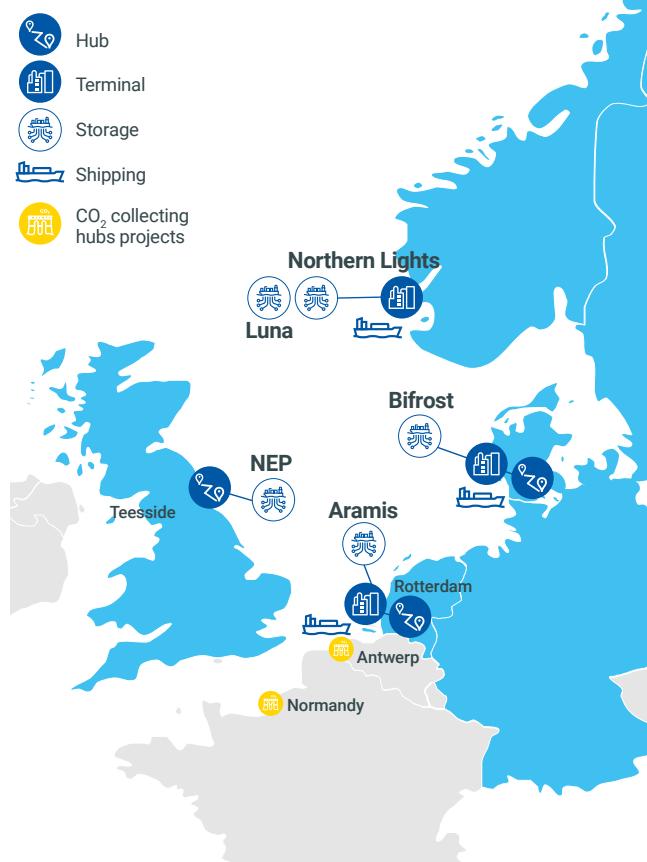
### Support for the World Bank's new methane trust fund

TotalEnergies was the first Company to announce a contribution of \$25 million over the period 2024-2030 to the Global Flaring and Methane Reduction (GFMR) trust fund launched by the World Bank at COP28. The GFMR will target, finance and support strategic projects to eliminate routine flaring and reduce methane emissions in countries with the greatest emissions reduction potential.

<sup>5</sup>. Nigerian National Petroleum Company Limited. <sup>6</sup>. Oil and Natural Gas Corporation. <sup>7</sup>. 3<sup>rd</sup> International Methane Emissions Observatory report. <sup>8</sup>. « All-stars of non-operated joint venture engagement: TotalEnergies has submitted one of the most comprehensive strategies for engaging its non-operated joint ventures. The Company has provided detailed information on how it is supporting, progressing and collaborating with each non-operated joint venture. It has also provided detailed observations on its reconciliation attempts and a gap analysis process. In addition, TotalEnergies is providing technology access and support to its non-operated joint venture operators. » (Source IMEO report 2023).

# Expanding Geological Carbon Storage to Reduce Our Emissions and Those of Our Customers

## CARBON STORAGE PROJECTS IN EUROPE



The IEA's NZE scenario<sup>1</sup> includes the use of CCS<sup>2</sup> up to 6 Gt CO<sub>2</sub> per year in 2050, to reduce part of the emissions from residual Oil & Gas consumption, as well as those from industrial processes (cement, lime, steel, etc.). This capacity is more than 100 times greater than the 45 Mt CO<sub>2</sub> per year currently captured worldwide. Our CCS strategy gives priority to decarbonizing our activities in order to reduce Scope 1+2 emissions from our Upstream Oil & Gas assets, refining and LNG plants. For example, at the Snøhvit liquefaction plant, where we are a partner alongside Equinor, around 8 Mt of native CO<sub>2</sub> have been stored since 2008. Similarly, the native CO<sub>2</sub> separated in the new NFE and NFS LNG liquefaction trains currently under development will be stored by QatarEnergy. The same will be true for the native CO<sub>2</sub> separated on Cameron LNG to be stored in the Hackberry CCS storage facility in the context of a new train project by Cameron LNG. Finally, for our Ichthys LNG asset in Australia, we are studying a native CO<sub>2</sub> storage solution for start-up before 2030. The study of CCS solutions on our assets therefore complements the efforts already mentioned to reduce emissions (electrification, energy efficiency, flaring reduction, etc.).

The Company also invests in CO<sub>2</sub> storage projects for third parties ("Storage as a Service"), offering CO<sub>2</sub> storage solutions to large industrial customers who can thus reduce their Scope 1 emissions and secure the future of their activities. By 2023, we have already invested around \$100 million in this business. We will continue to invest heavily in storage projects, both for our own assets and for third parties, to

achieve our objective of developing more than 10 Mt CO<sub>2</sub><sup>3</sup> of storage capacity by 2030.

Europe is at the heart of this CCS strategy. Our Company is one of the incumbent operators in the North Sea and has recognized operational and geological expertise in the area. The United Kingdom, Norway and Europe have set themselves objectives, regulations and provided significant financial support to promote the cross-border deployment of CCUS<sup>4</sup>. We are currently developing five projects in the North Sea that will provide decarbonization solutions for our assets and those of our customers. Our ambition is to continue to acquire new exploration permits to increase our CO<sub>2</sub> storage capacity after 2030.

We are also investigating the use of carbon in various forms (CCU<sup>5</sup>). ■

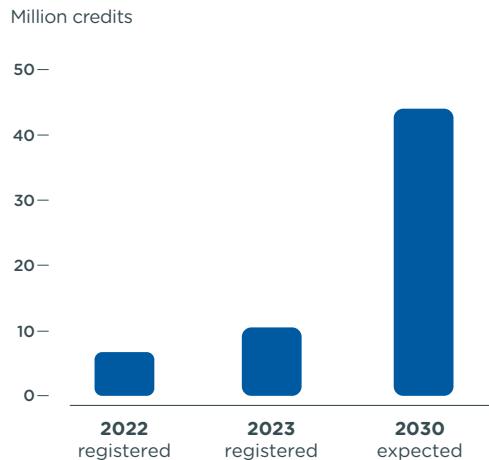
## HIGHLIGHTS ✓

TotalEnergies is expanding in Denmark, where the Company has obtained a storage license for two exploration blocks (TotalEnergies, 80%) in 2023. These two licenses cover an area including the Harald gas fields, currently operated by TotalEnergies and for which the Company is already assessing the CO<sub>2</sub> storage potential as part of the Bifrost project, as well as a saline aquifer that could increase the volumes stored. Subject to evaluation work, this project should eventually provide permanent storage for more than 5 Mt CO<sub>2</sub>/year.

1. IAE 2023 ; Net Zero Roadmap, 2023 update. License CC BY 4.0. 2. Carbon Capture & Storage.  
3. A list of our CCS projects is provided in the Performance Data section. 4. Carbon Capture, Utilization and Storage. 5. Carbon Capture & Utilization.

# Offsetting Residual Emissions with Natural Carbon Sinks

CUMULATED CREDITS GENERATED FROM THE 11 SANCTIONED PROJECTS BY THE END OF 2023



natural areas preservation and restoration can be a lever for achieving net zero emissions worldwide by 2050.

Only in 2030 will TotalEnergies begin voluntary offsetting its residual emissions via NBS (Nature Based Solutions) carbon credits and will offset only Company's Scope 1+2 residual emissions.

We are working to build a high-quality portfolio and are paying close attention to the integrity and permanence of the emissions reductions and sequestration achieved by the activities financed in this way. We are in favor of strengthening a global framework of trust to further reinforce robust and recognized voluntary crediting mechanisms.

We are investing in forestry, regenerative agriculture and wetlands protection projects. Our strategy aims to combine and balance the value of people's financial revenue from agriculture and forestry and the value of the benefits to soil, biodiversity, the water cycle and the production of carbon credits. When that approach is successful, the local standard of living improves and degradation of the land diminishes – as do emissions. This search for balance among different practices makes a just transition possible.

At 2023 year end, our stock of credits stood at just under 11 million out of which the very large majority is certified by VERRA VCS standard (> 99%; the remaining < 1% being certi-

fied by the Australian Carbon Credit Units Scheme of the Australian Government). We have allocated \$100 million annually for these projects, and the cumulative budget pledged for all of these campaigns amounts to nearly \$725 million over their cumulated lifespan, with the accumulated credits expected to total 44 million in 2030 and 71 million in 2050.

The final tally of credits obtained will be determined once the projects have been completed. If such a stock of 44 million credits is built up in 2030 and on the basis of a consumption of 10% of the stock per year from 2030, then TotalEnergies would use around 5 million credits per year from 2030 onwards. ■

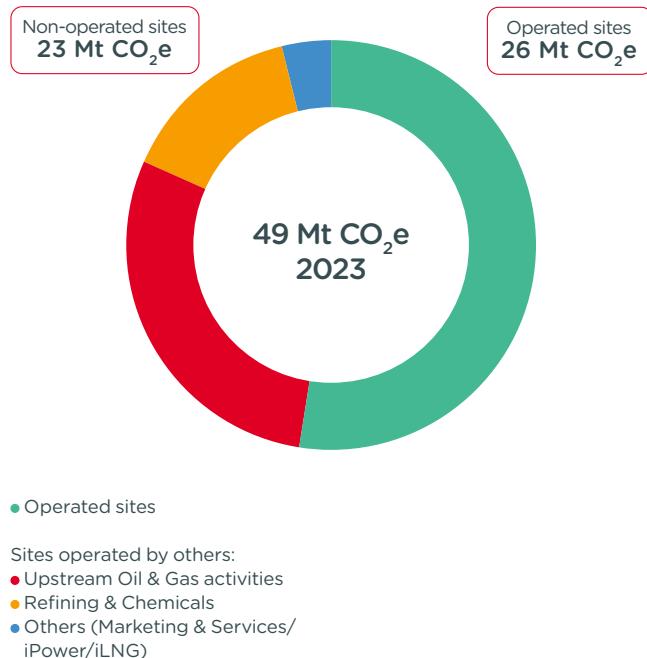
## HIGHLIGHTS ✓

### Invest in a fund

In 2023, the Company has made the decision to invest \$100 million over 15 years in the projects of the Nature Based Carbon fund managed by Climate Asset Management, which focuses on preserving or restoring three types of ecosystems: degraded natural forests, grasslands impacted by human activity and wetlands.

# Actively working With Our Partners on Non-Operated Assets

SCOPE 1+2 BASED ON EQUITY SHARE - 2023



Ur Scope 1+2 emissions based on equity share amounted to 49 Mt CO<sub>2</sub>e in 2023. Half of those emissions are attributable to our interests in sites we operate; the remaining being from our interests in sites operated by our partners. We are actively mobilizing our partners to reduce emissions from assets they operate.

At Exploration & Production, a dedicated team is tasked with sharing best practices with our partners at non-operated assets, such as deploying a decarbonization roadmap that includes an energy assessment, reduction of methane venting and routine flaring, and improving energy efficiency, particularly for gas turbines and compressors. We use the projects conducted at our operated sites to illustrate ways our partners can reduce their Scope 1+2 emissions and encourage uptake.

Upstream emissions can also be reduced by reinjecting the CO<sub>2</sub> extracted with the gas produced. This reinjected volume currently represents almost 2 Mt per year in Company's equity share, particularly in Brazil, and is set to grow significantly as associated gas production increases. ■

## HIGHLIGHTS ✓

### Our collaboration with Petrobras

The FPSOs<sup>1</sup> P-68 and P-70, operated by Petrobras, have been producing in "closed flare" mode since 2023. We also participate in joint technical forums with our partners to promote TotalEnergies' retrofit expertise. Moreover TotalEnergies' venting free oil tank design has been incorporated on Sepia 2 and Atapu 2 and FID has been taken in 2024 for an innovative subsea technology called HiSep® to reinject CO<sub>2</sub> rich gas into the Mero field.

### COP28: signing of the Oil & Gas Decarbonization Charter

At COP28, a major initiative between national and international oil companies was launched to reduce the industry's GHG emissions: the Oil & Gas Decarbonization Charter (OGDC). This initiative brings together more than 50 companies, two-thirds of which we are partner with, representing over 40% of the world's oil production. This is an historic step forward, as it brings together for the first time international oil companies (IOCs) & national oil companies (NOCs) from this sector around concrete objectives not only to act on their emissions (net-zero operations by 2050 or earlier, elimination of routine flaring by 2030 and aiming for near zero Upstream methane by 2030) but also to report on their actions. TotalEnergies was one of the first companies to sign the Charter, and its CEO Patrick Pouyanné was chosen to represent the IOCs on the OGDC's three-person co-chairmanship, formed by the CEOs of ADNOC, Aramco and TotalEnergies.

1. FPSO : Floating, Production, Storage and Offloading.

## FOCUS WHAT ARE THE RELEVANT INDICATORS FOR REDUCING GHG EMISSIONS WORLDWIDE?

We are ambitious in our targets for direct emissions (Scope 1+2), which we control in our operated facilities. We have defined medium and long-term targets and action plans aimed at Net Zero by 2050 (see p. 14/30-31).

We are also ambitious in helping our customers reduce their emissions through our multi-energy strategy, which makes a wider range of energies available to our customers, including low-carbon energies. We track progress through the decarbonization index of our sales (life cycle carbon intensity of energy products sold)<sup>1</sup>. We have been leading among our peers in terms of actually achieving decarbonization of the energy products sales mix since 2015.

As part of our contribution to the energy transition of our clients, we are thus developing activities in the production and sales of low-carbon electricity. We also produce and sell liquified natural gas, which is a necessary transition fuel for building a reliable, low-carbon power system, complementing renewable energies that are intermittent by nature.

Moreover, gas helps to decarbonize power generation in many countries, since burning gas rather than coal to

produce electricity emits half as much CO<sub>2</sub> for the same amount of energy produced (see p. 44-45).

In this respect, setting objectives to drastically reduce TotalEnergies' global indirect emissions (Scope 3)<sup>2</sup> in absolute value, without an evolution of the overall structure of energy demand, is in reality not relevant to reduce global GHG emissions.

Most of the emissions reported under Scope 3 by TotalEnergies correspond to the direct emissions (Scope 1) of the consumers of these products: the use of these products depends on their decisions and needs.

In this context, an absolute reduction target for Scope 3 for a company like TotalEnergies, without any change in energy systems and therefore without the reduction of the corresponding Scope 1 of energy users, would lead to a shift of this demand towards other suppliers, notably the national oil companies of producing countries which account for more than 70% of the world market (compared with around 1.5% for TotalEnergies).

This strategy would have no effect on lowering global green-

house gas emissions, and therefore no positive impact on climate, and would be contrary to the interests of our Company and its shareholders.

This strategy could be counter-productive for TotalEnergies' customers, as the Company has set as a goal to ensure their energy supply security while supporting them in their own decarbonization journey.

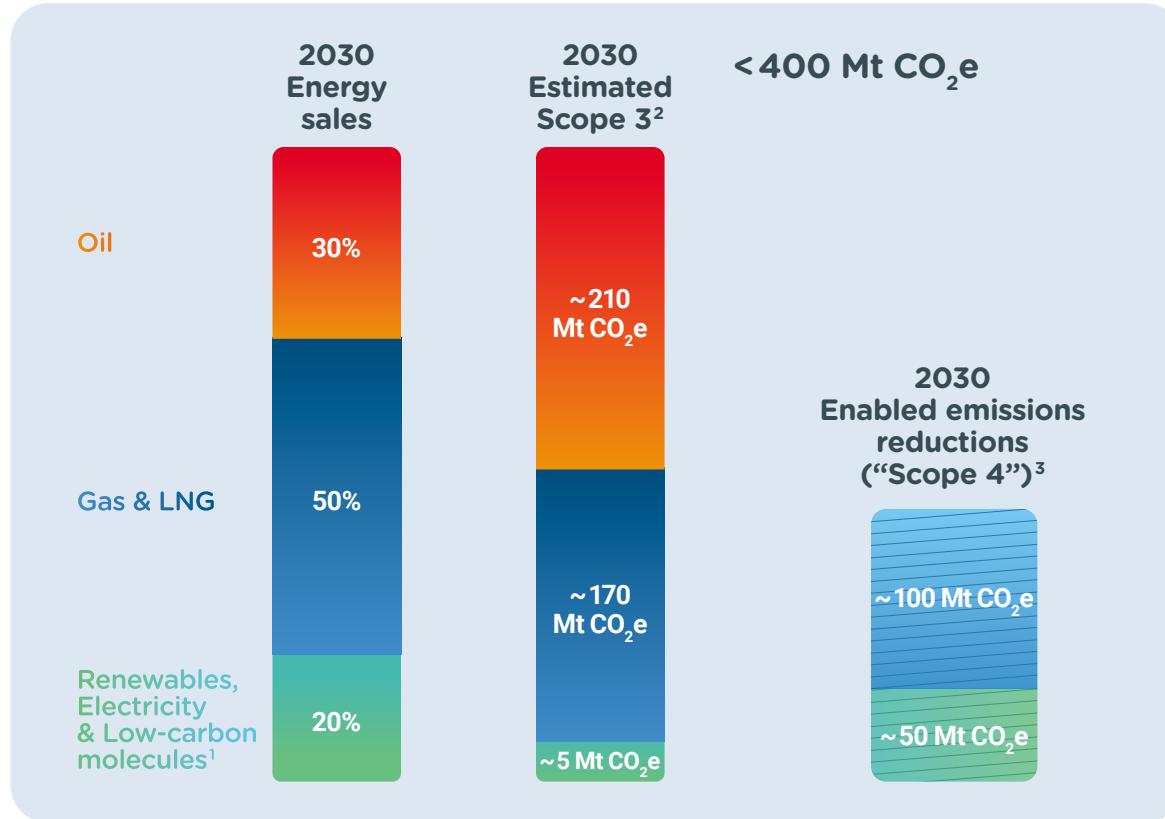
Reminder: under Scope 3, since 2016 TotalEnergies has reported Category 11 emissions related to the end use by its customers of products sold i.e., linked to their combustion to obtain energy.

Since 2023, TotalEnergies has published an estimate of indirect emissions related to the other Scope 3 categories, in accordance with the classification used by the GHG Protocol and Ipieca. We are also implementing action plans to reduce the emissions of the other categories (see p. 101). ■

1. Lifecycle carbon intensity of energy products sold. See report's glossary for further details.

2. GHG Protocol - Category 11. See report's glossary for further details.

# Helping our Customers Reduce their Own Emissions



By 2030, the Company's two-pillar balanced transition strategy aims to result in a sales mix of energy products with the view to final use whose lifecycle carbon intensity of energy products sold<sup>4</sup> would be reduced by 25%, which means:

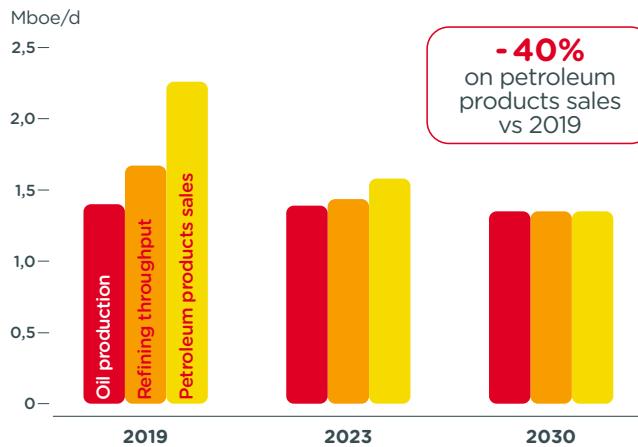
- for an equivalent quantity of energy, the carbon content of energy products would be reduced by 25% ("less emissions for same energy");
- for an equivalent quantity of emissions (Scope 1+2+3), the Company would supply 33% more energy to its customers ("more energy for same emissions").

Furthermore, by 2030, energy products sold such as LNG and low-carbon electricity might contribute to enabled emissions reductions ("Scope 4")<sup>3</sup> of around 150 Mt CO<sub>2</sub>e (around 100 Mt CO<sub>2</sub> coming from Gas & LNG sales and around 50 Mt CO<sub>2</sub> coming from Renewables), to be compared with a Scope 3<sup>2</sup> kept below 400 Mt CO<sub>2</sub>e. These reductions, which will result from our customers decisions to substitute more carbon-intensive energy products with less carbon-intensive ones, and therefore reduce their own Scope 1+2 (use of gas or renewables to generate electricity instead of fossil fuels), will definitely contribute to lower global GHG emissions.■

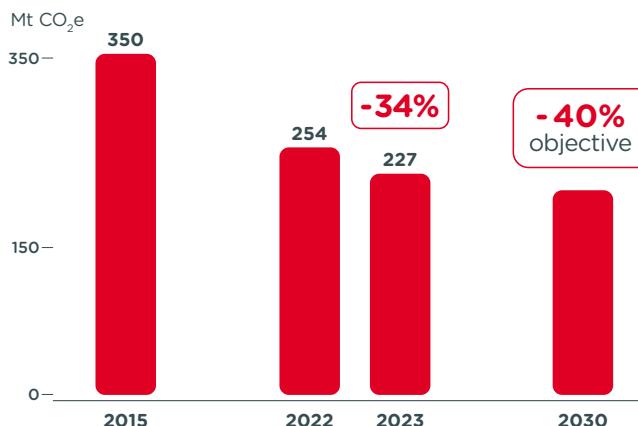
<sup>1</sup>. Biofuels, biogas, hydrogen and e-fuels/e-gas. <sup>2</sup>. GHG Protocol - Category 11. See report's glossary for further details. <sup>3</sup>. Calculation methodology described in TotalEnergies' Sustainability and Climate – 2024 Progress Report Glossary and in p. 44-45. <sup>4</sup>. Lifecycle carbon intensity of energy products sold. See report's glossary for further details.

# Anticipating Changes in Demand by Adapting our Sales of Petroleum Products

OIL PRODUCTION, REFINERY THROUGHPUT AND PETROLEUM PRODUCT SALES



SCOPE 3<sup>1</sup> OIL EMISSIONS



A

significant part of TotalEnergies' Downstream refining and marketing activities are located in Europe.

The European Union with its Green Deal and its "Fit for 55" regulatory package, has the ambition to be the first carbon-neutral continent by 2050.

These major trends are leading us to accelerate the transition of our Downstream activities in Europe to reduce our exposure to petroleum products and to develop in new mobilities. Thus, at a global level, we expect to reduce our sales of petroleum products by 40% by 2030, so that we do not sell or refine more fuel than we produce oil. This means, in particular, that our service station networks will have to adapt to lower demand for fuels, notably through disposals in Europe.

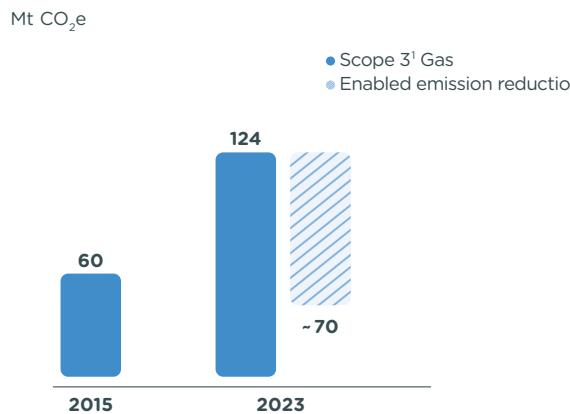
Conversely, this strategy is leading us to develop actively in new mobilities: in low-carbon molecules, we have initiated the conversion of refineries into biorefineries in Europe; in electric mobility, the Company is accelerating our growth with a plan to deploy charging points on major corridors and motorways and in large cities in Europe. In hydrogen, we are notably developing a European network of hydrogen stations for trucks, in partnership with Air Liquide. ■



1. GHG Protocol - Category 11. See report's glossary for further details.

# Reduction of Emissions Enabled by Our Sales of Gas

## SCOPE 3<sup>1</sup> GAS AND ENABLED EMISSIONS REDUCTIONS



**~70 Mt CO<sub>2</sub>e**  
ENABLED EMISSION REDUCTION FOR  
OUR CUSTOMERS BY THE USE OF LNG

**G**as-fired power plants are a flexible resource for power generation and can be mobilized quickly; as a result, they offer a secure backup for grids designed to be powered increasingly by intermittent renewable sources. CCGTs discharge half the greenhouse gases of the coal or fuel oil-powered plants<sup>2</sup> that still, in some countries, account for the majority of power generation capacity. The use of coal accounts for 36% of power generation and 74% of GHG emissions associated with electricity, while natural gas accounts for 23% of generation and 22% of emissions<sup>3</sup>.

LNG, which can be shipped by sea, can flexibly supply many gas-fired power plants. A large percentage of the natural gas we sell goes to the electricity industry.

Given the positive role played by natural gas, TotalEnergies is aiming to increase its share of the sales mix by 2030, and has made the decision not to set a gas Scope 3<sup>1</sup> reduction target. When fuel-oil or coal-fired power generation is replaced by gas-fired power generation, GHG emissions fall, whereas TotalEnergies' gas Scope 3<sup>1</sup> increases.

We have estimated the reductions of emissions enabled to which our 2023 sales of LNG may have contributed. To do that, we identified the likely competing source of flexible power generation for each LNG-receiving country. The calculation is based on generation mix and emission factors issued by Enerdata and IEA<sup>4</sup>, for each country<sup>5</sup> and generation mean.

We estimate that our customers' use of LNG has enabled emissions reductions by about 70 Mt CO<sub>2</sub>e in 2023.

## Estimated enabled emissions reductions by renewable electricity sales by 2030

Similar approach as the one described above-mentioned has been taken to estimate enabled emissions reductions for our sales of renewable electricity: the methodology compares emissions from the country's alternative non-renewable mix (following the methodology applied by IRENA) and the ones from solar and wind generation. The applied emission factors (published by IEA) cover the entire life cycle of power generation<sup>6</sup>. Non-renewable production mixes are based on IEA<sup>7</sup> projections by country<sup>8</sup> or, if unavailable, by region<sup>9</sup>. Thus, by 2030, the emissions reductions enabled by a portfolio of 100 GW of gross capacity have been estimated at around 50 Mt CO<sub>2</sub>e. ■

1. GHG Protocol - Category 11. See report's glossary for further details. 2. IEA 2023 ; Life Cycle Upstream Emission Factors (Pilot Edition). 3. The rest of power generation is generated by hydro (15%), solar and wind (10%), nuclear (10%) and fuel-oil and other renewables. Data for 2021 provided in WEO 2023 from IEA and confirmed for 2022 by Enerdata. 4. Generation mix for 2022 issued by Enerdata and emission factors for 2021 issued by AIE (data published in September 2023). 5. For this calculation, Germany, France, Belgium Luxembourg and the Netherlands are considered as a single power and gas system. For France, emission factors published by RTE have been considered. 6. Combustion and upstream emission factors published in September 2023 by IEA for the year 2021. 7. STEPS scenarios of the World Energy Outlook 2023. 8. For Brazil, India and the US. 9. For Subsaharan Africa, rest of America, Asia-Pacific (excluding China), Europe and Middle-East North Africa.

## ESTIMATE OF ENABLED EMISSIONS REDUCTION BY TOTALENERGIES' SALES

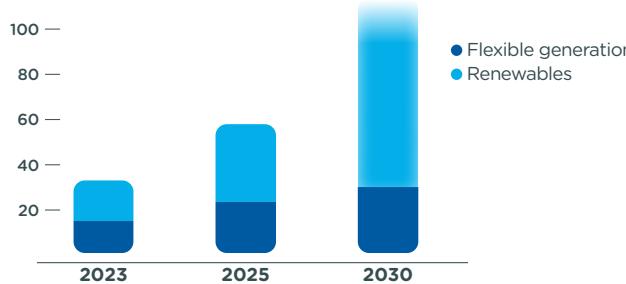
COUNTRY	Sales 2023 (Mt)	LNG displacing (oil/coal)	Emission factor Gas-to-power (kt CO <sub>2</sub> e/TWh)	Emission factor Oil-to-power (kt CO <sub>2</sub> e/TWh)	Emission factor Coal-to-power (kt CO <sub>2</sub> e/TWh)	Gas used in power generation %	Enabled Emissions Reduction (Mt CO <sub>2</sub> e)	Efficiency <sup>(2)</sup> (t CO <sub>2</sub> e reductions/t LNG)
China	5.6	Coal	337		942		<b>21.0</b>	3.8
Greece	0.9	Oil/Coal	389	763	1,184	73%	<b>2.7</b>	3.0
Italy	1.1	Oil/Coal	354	1,270	1,077	44%	<b>2.3</b>	2.2
South Korea	3.2	Oil/Coal	355	606	977	57%	<b>6.9</b>	2.1
Japan	2.3	Oil/Coal	387	797	897	67%	<b>4.7</b>	2.1
Taiwan	1.5	Oil/Coal	440	790	849	79%	<b>2.9</b>	2.0
United Kingdom	2.5	Oil/Coal	374	625	1,372	36%	<b>4.9</b>	1.9
Spain	0.9	Oil/Coal	361	629	1,193	47%	<b>1.5</b>	1.6
Bangladesh	0.5	Oil/Coal	484	872	902	57%	<b>0.7</b>	1.4
Dominican Republic	1.4	Oil	449	653			<b>1.8</b>	1.3
Turkey	1.1	Oil/Coal	340	315	988	28%	<b>1.2</b>	1.1
Indonesia	0.5	Oil/Coal	525	1,242	1,067	33%	<b>0.5</b>	1.1
Malaysia	0.6	Oil/Coal	437	834	985	27%	<b>0.6</b>	0.9
North-West Europe <sup>1</sup>	15.9	Oil/Coal	351	642	921	26%	<b>14.4</b>	0.9
Argentina	0.8	Oil/Coal	392	696	1,216	33%	<b>0.6</b>	0.8
India	1.4	Oil/Coal	497	1,217	964	18%	<b>0.7</b>	0.5
Others	4.2						<b>4.7</b>	
<b>Total</b>	<b>44</b>						<b>72</b>	<b>1.6</b>

1. Germany, Belgium, France, Luxembourg, Netherlands. 2. Enabled emissions reduction (t CO<sub>2</sub>e)/LNG sales (t).

# Our Major Development in Electricity: an Integrated Approach

## DEVELOPMENT OF A DIFFERENTIATED PROFITABLE INTEGRATED MODEL

Electricity generation – Company share, TWh



## >100 TWh

OF NET ELECTRICITY PRODUCTION BY 2030

## ~20 TWh

OF RENEWABLE ELECTRICITY IN 2023,  
MULTIPLIED BY 4 TO 5 IN 2030

## ~15 TWh

OF FLEXIBLE ELECTRICITY IN 2023

**E**lectricity demand, which is vital to the success of the energy transition, is expected to grow sharply, as decarbonization is at the heart of the roadmaps of countries committed to carbon neutrality by 2050.

In response, Integrated Power, a new pillar of the Company's strategy, is developing an integrated model encompassing the entire value chain, from power generation to sales and trading activities, with a profitability target of 12% ROACE.

TotalEnergies net electricity production target is to produce more than 100 TWh by 2030, thanks to a 4 to 5-fold increase in renewable production (19 TWh in 2023) and a 2-fold increase in flexible assets production (15 TWh in 2023). As part of its ambition to achieve carbon neutrality by 2050, TotalEnergies is building a competitive portfolio of renewable (solar, onshore and offshore wind) and flexible (CCGT, storage) assets to provide its customers with less and less carbon-intensive electricity available 24/7.

The Company's levers to grow with a return on average capital employed of 12% are selectivity in its choices of projects; integration across the entire electricity value chain; cost control using our project management and offshore devel-

opment skills; mobilizing external financing at competitive rates and making partial divestments to accelerate cash flow generation and diversify our portfolio's exposure. ■

## HIGHLIGHTS ✓

### Germany

In October 2023, TotalEnergies signed agreements to acquire the renewable energy aggregator Quadra Energy, which has a 9 GW "virtual power plant".

### United States

TotalEnergies will supply solar power to LyondellBasell, a world leader in petrochemicals, through two long-term sales contracts to supply 275 MWac (358 MW) of green electricity from the Cottonwood Bayou and Brazoria Solar farms in Texas.

### Xlinks: taking part in a pioneer project

TotalEnergies acquired a minority stake in the Xlinks project, the ambition of which is to develop a giant renewable project in Morocco (combining solar and wind), to supply green electricity to the United Kingdom through the installation of high-voltage direct current (HVDC) subsea cables, coupled with a large battery energy storage.



Renewables



Flexible Generation



Storage



Trading



Customers

# Our Renewable Electricity Capacity Build-up

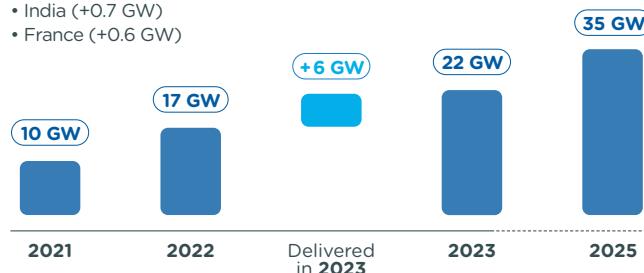
## GROSS INSTALLED CAPACITY OF RENEWABLE ELECTRICITY GENERATION

GW

**+ 6 GW IN 2023**

Of gross capacity in 2023, including:

- United States - Myrtle, Danish, Clearway (+2 GW)
- United Kingdom - Seagreen (+0.9 GW)
- Brazil - Casa dos Ventos (+0.7 GW)
- India (+0.7 GW)
- France (+0.6 GW)



We are executing our roadmap in renewables electricity.

At year end 2023, TotalEnergies reached a gross installed production capacity of 22 GW of renewable electricity and intends to continue developing these activities to reach 35 GW by 2025 and 100 GW by 2030, a level that would bring us among the world's top five producers of renewable electricity (wind and solar) excluding China. ■

## HIGHLIGHTS ✓

### Integration of Total Eren

TotalEnergies acquires 100% of Total Eren after five years of a successful strategic partnership, raising its stake from nearly 30% to 100% of a global player with 3.5 GW of renewable generation and a portfolio of 10 GW.

### Offshore wind

#### Germany.

TotalEnergies has been awarded two marine concessions in Germany to develop two offshore wind farms with a total capacity of 3 GW. From 2030, these projects will supply electricity equivalent to the consumption of more than 3 million households.

#### United States.

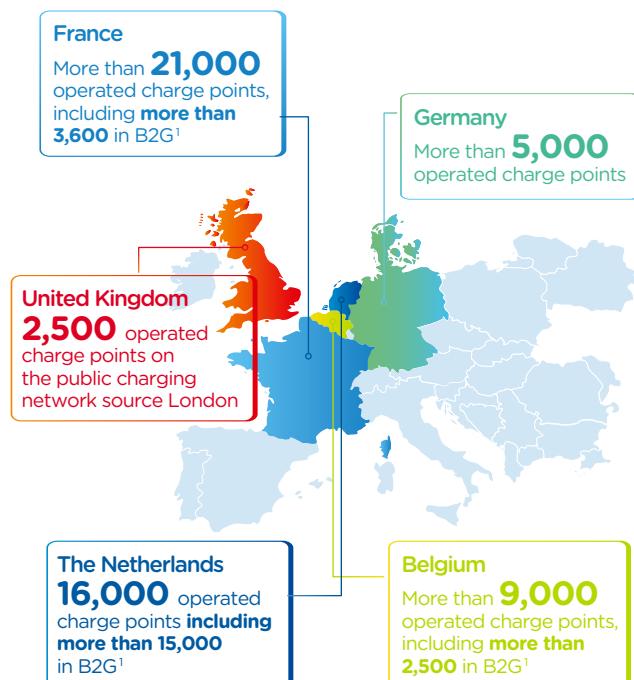
TotalEnergies joins force with Corio Generation and Rise Light & Power for its 3 GW offshore wind project of New York and New Jersey. TotalEnergies was awarded a 25-year contract to supply 1.4 GW of renewable electricity in New York and a 20-year contract to supply 1.3 GW of renewable electricity in New Jersey.

#### Scotland.

TotalEnergies and its partner SSE Renewables have commissioned the world's largest offshore wind farm: Seagreen is now fully operational at its design capacity of 1075 MW.

# Developing Electric Mobility

BREAKDOWN OF THE 55,000 CHARGE POINTS OPERATED BY TOTALENERGIES IN EUROPE BY THE END OF 2023



TotalEnergies will invest more than \$1 billion in electric mobility between 2024 and 2028, developing a network of high-power electric charging stations along motorways, major roads and in urban hubs in Europe.

By 2028, the Company's ambition is to have 1,000 high power charging sites in Europe.

In addition to this network adapted to road roaming, TotalEnergies supports its B2B customers in their transition to electric mobility by offering services for the deployment and supervision of charging stations at the workplace as well as at employee's homes. For heavy duty trucks in particular, the Company is developing a tailor-made offer for road haulers, with smart charging and green electricity supply solutions in addition to in-depot charging. To meet their charging needs outside their depots, TotalEnergies plans to install high power charging points suited to this type of vehicles along European corridor from 2024 onwards.

The Company is also developing its recharging network in a number of cities around the world, with a portfolio of over 30,000 recharging points in operation or under deployment in Paris, London, Brussels and Singapore.

Finally, TotalEnergies supports individual customers at home, with home charging solutions that include an energy supply

contract or on the road with subscription offers allowing access to a very large network of charging stations.

From the production of renewable electricity to the operation of recharging services, the Company is present across the entire electric mobility value chain. ■

## HIGHLIGHTS ✓

**In France**, in 2023, the Company passed the milestone of 1,000 high-power charging stations installed at 200 sites. In addition to these stations, we operate nearly 20,000 charge points (local authorities, corporate fleets, public charging points on roads, parking lots).

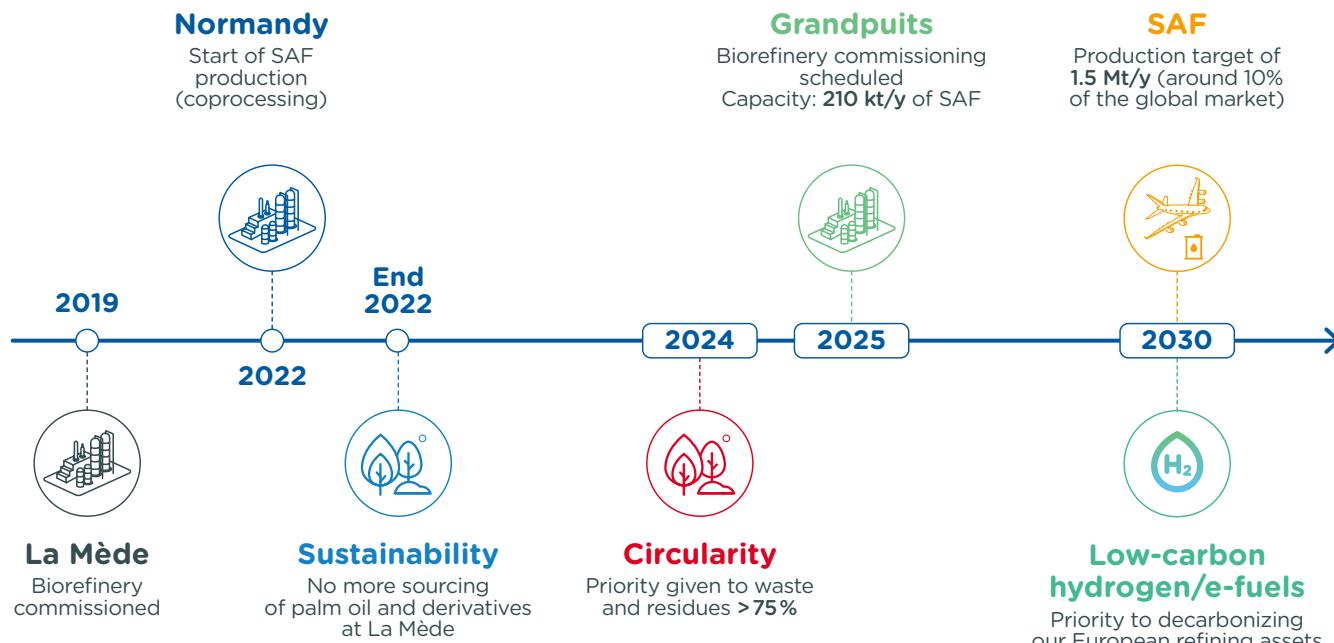
**In Germany**, TotalEnergies was selected in the Deutschlandnetz tender to install and operate 1,100 high-power charge points at 134 sites.

**In Spain**, TotalEnergies acquires 200 fast and ultra-fast charging sites from the Wenea network. TotalEnergies and Wenea sign an agreement to build a leader in electric mobility.

1. B2G : Business to Government, commercial relationship between a company and a public or local authority, or government.

# New Low-carbon Energy

TRANSFORMING OUR INDUSTRIAL SITES  
TO PRODUCE LOW-CARBON ENERGY



The energy transition also requires the development of low-carbon energy based on the conversion of biomass and waste or the production of e-fuels combining hydrogen with CO<sub>2</sub> used as a raw material. TotalEnergies is thus developing these new energy: biofuels, biogas, hydrogen and e-fuels.

## Biofuels

Today, biofuels emit 50% less CO<sub>2</sub> than their fossil fuel equivalents<sup>1</sup>, making them a decarbonization pathway for liquid fuels. Because demand is strong, this is a high-margin market, but access to feedstocks (plants, residues, sugar, etc.) remains a barrier to growth.

Among these biofuels, TotalEnergies favors the production of Sustainable Aviation Fuel (SAF) to decarbonize the aviation industry.

To avoid land use conflicts, TotalEnergies is developing solutions based on primarily food industry waste and residues (used oils, animal fats). Our aim is to increase the share of circular feedstocks to more than 75% as from 2024 in our production of biofuels (see p. 77).

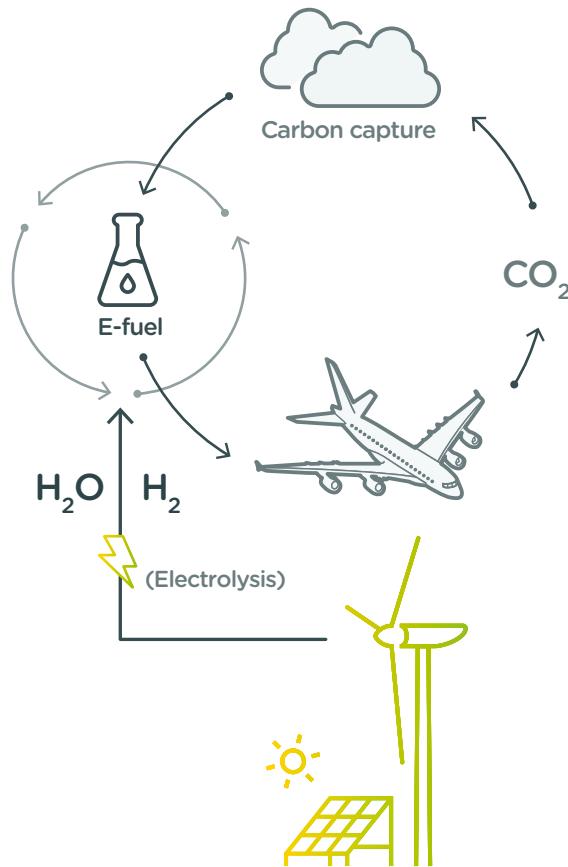
## Biogas

Biogas, produced from the decomposition of organic waste, is a renewable gas. Injected into gas networks in the form of biomethane, it contributes to the decarbonization of natural gas uses.

TotalEnergies' gross production capacity of 1.1 TWh/year eq. biomethane has almost doubled compared with 2022. The

1. According to the European Directive 2018/2001 named RED II.

## GREEN HYDROGEN PRODUCTION TO MAKE SUSTAINABLE AVIATION FUEL



# 500 kt/year

CALL FOR TENDERS FOR GREEN HYDROGEN

Company now intends to pursue its development through growth, mainly in Europe and the United States, with a 2030 target of 10 TWh of net production.

### Hydrogen and e-fuels

**Hydrogen.** The production of green hydrogen will require the massive deployment of renewable electricity production capacities, to which TotalEnergies is contributing through its investments and the development of the Integrated Power segment (see p. 46). For our operations, our priority is to

decarbonize the hydrogen consumed in our European refineries by 2030. TotalEnergies aims to replace carbon-based or grey hydrogen by green hydrogen, produced by electrolysis of water using electricity from renewable energy sources.

### Synthetic fuels, e-fuels

CO<sub>2</sub> can be combined, in reaction with renewable hydrogen, to produce synthetic fuels or gas. In 2023, TotalEnergies is setting milestones in its synthetic fuels roadmap. ■

### HIGHLIGHTS ✓

#### Biogas

Start-up of the **BioBéarn** plant in France in 2023, with a capacity of 160 GWh/year, equivalent to the average annual consumption of 32,000 inhabitants. It is one of the first plants in France to be awarded ISCC EU certification, guaranteeing the highest level of environmental performance in Europe. Since January 2024, 100% of our biomethane sites in France have been ISCC-certified.

TotalEnergies has acquired **Polska Grupa Biogazowa** (PGB) - Poland's leading biogas producer - which owns and operates 18 units in production and two under construction, for a total capacity of 166 GWh per year of renewable electricity production (0.4 TWh eq. CH4).

#### Decarbonizing our European refineries

As part of this ambition, in 2023 TotalEnergies signed agreements to supply green, low-carbon hydrogen to several of its sites (Normandie, Grandpuits, Leuna) and launched a tender for the supply of 500 kt/year of green hydrogen,

which should enable it to avoid the emission of around 5 Mt/year CO<sub>2</sub> from its European refineries by 2030. These major projects contribute to the Company's objective of reducing net greenhouse gas emissions directly related to its operations by 40% in 2030 compared with 2015.

#### Decarbonization

TotalEnergies and VNG (German natural gas distribution company) have signed an agreement for the future supply of green hydrogen to the Leuna refinery. This agreement contributes to the decarbonization of the site and will enable a reduction of up to 80,000 t/year of CO<sub>2</sub> emissions by 2030.

#### e-Gas

TotalEnergies has joined forces with Tree Energy Solutions (TES) to study an industrial-scale "synthetic methane" production unit in the United States (100 to 200 kt/year), produced from renewable hydrogen and CO<sub>2</sub> of biogenic origin, which can be transported and distributed using existing natural gas infrastructures.

## FOCUS SUSTAINABLE AVIATION FUEL (SAF)



SUSTAINABLE AVIATION FUELS  
PRODUCED FROM USED COOKING  
OIL MAKE IT POSSIBLE TO

**-80%**<sup>(1)</sup>

OF CO<sub>2</sub> EMISSIONS OVER THE ENTIRE  
LIFE CYCLE, COMPARED TO THEIR  
FOSSIL FUEL EQUIVALENT

AMBITION TO PRODUCE

**1.5Mt of SAF**

IN 2030, WORLDWIDE

TotalEnergies intends to become a major player in the production of SAF (Sustainable Aviation Fuel), with a **target of 1.5 Mt/year by 2030**.

This production is currently being developed on **our existing platforms in Europe, the Middle East and Asia**, notably Grandpuits, Normandie, La Mède and SATORP.

### Grandpuits

The biorefinery is scheduled to come on stream in 2025. It will process 420 kt/year of feedstock, mainly waste and residues, to produce up to **285 kt/year of SAF by 2028**. In 2022, TotalEnergies has joined forces with SARIA (European leader in the collection and valorization of organic materials into sustainable products) **to guarantee the supply of lipidic feedstock**.

### Normandy

TotalEnergies plans to increase SAF production from **130 kt/year in 2025 to 160 kt/year by 2027**.

### La Mède

Since 2022, biodiesel produced at La Mède has already been used to produce SAF at the TotalEnergies plant in Oudalle, near Le Havre. In 2024, TotalEnergies will continue to invest in the site, so as to be able to **process up to 100% waste from the circular economy (used oils and animal fats)** and will produce locally 14 kt/year of SAF by 2025.

### SATORP

For the first time in the Middle East, SATORP has succeeded in co-processing used cooking oil to produce a fuel that meets all the quality criteria of the SAF ISCC+ certified specifications.

### Partnerships

In Japan, TotalEnergies has partnered with ENEOS Corporation to study the feasibility of a SAF production unit at the ENEOS refinery in Wakayama. The planned unit, which would have a production capacity of 335 kt/year of SAF, would process waste or residues from the circular economy.

In China, TotalEnergies is studying with its partner Sinopec the development of SAF production of around 230 kt/year. This unit would mainly process local residues and waste.

Beyond the SAF currently produced from used cooking oil, our mission is to prepare the next generation of aviation fuels, such as e-SAF.

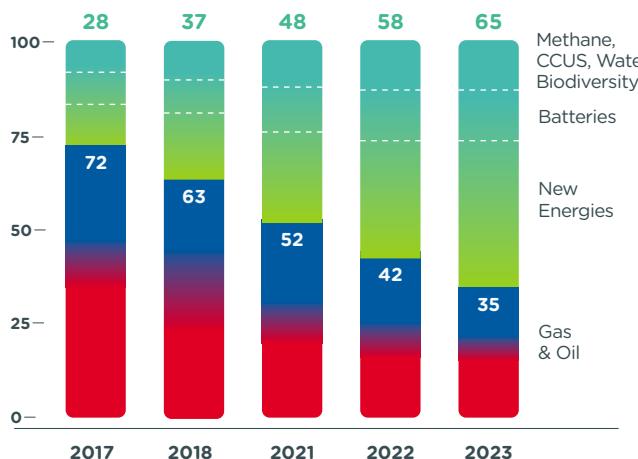
Together with Masdar, the UAE Civil Aviation Authority, Airbus, Falcon Aviation Services and Axens, TotalEnergies has demonstrated the potential for converting methanol into SAF. Based on the use of renewable electricity, it could enable the production of e-SAF from CO<sub>2</sub> converted into methanol. ■

1. Panorama 2020 - Biofuels incorporated into fuels in France, published by the Ministry of Ecological Transition and Territorial Cohesion.

# Innovating to Accelerate the Energy Transition

## R&D BUDGET ALLOCATION<sup>1</sup>

In %



1. Budget excluding Hutchinson.



ach year, TotalEnergies devotes around \$1 billion to R&D and innovation and mobilizes more than 3,500 employees.

## R&D at TotalEnergies

In 2023, 65% of our R&D focused on new energies (renewable electricity, new molecules), batteries and reducing our environmental footprint (methane, CCUS, water, biodiversity, etc.). This evolution of our research and innovation towards low-carbon energy points to the Company's future.

One of the missions of our new OneTech branch, created in 2021 to meet the Company's new challenges and mobilize the teams, is to provide solutions for reducing CO<sub>2</sub> emissions and improving the energy efficiency of our projects from the design phase, as well as to accelerate innovation in all our assets. To that end, OneTech mobilizes integrated teams working on the design, construction and operation of our energy facilities, right including R&D, reinforced by the development, testing and deployment of innovative external solutions for our assets to cope with identified issues in our operations.

## Leveraging digital technology to reduce our emissions

TotalEnergies' Digital Factory brings together around 300 developers, data scientists and other digital specialists with the objective to develop digital solutions to optimize our industrial assets (environmental impact, availability, costs) or to offer new services to our customers. ■



TotalEnergies Digital Factory:  
a transformation accelerator.



## HIGHLIGHTS ✓

### New battery coolants

TotalEnergies' R&D supports the transformation of the world of transport, the new solutions of mobility and industry applications, by developing products to enhance the performance of electric systems and combustion engines, and to reduce the environmental footprint of existing solutions. TotalEnergies has developed an innovative dielectric fluid that enables better cooling of electric vehicle batteries as well as a more efficient safety management compared to existing fluids. Building on this innovation, TotalEnergies has teamed up with Valeo, an automotive supplier, to define the best way of integrating this fluid into the heart of the battery pack, optimizing its performance and thus reducing the carbon footprint of electric vehicles.

### TotalEnergies Digital Factory: a portfolio of solutions being deployed at our facilities

The "Hydroptim" solution, which optimizes refineries' hydrogen networks to ensure the best possible use, and the "Smart Flare Tracker" solution, which optimizes flaring, help to reduce refineries' greenhouse gas emissions. Implemented at the Normandy refinery, Hydroptim will save 6,000 tons of CO<sub>2</sub> by 2023. The solution will be deployed at a new refinery in 2024. The "Smart Flare Tracker" solution saved 7,000 tons of CO<sub>2</sub> in 2023 at the Antwerp refinery, and will be rolled out at all refineries and biorefineries operated by the Company in 2024. In addition, the "CarbOptim" solution for Chemical Refining and the "MyCFR" solution for Exploration & Production are currently being deployed

at several industrial sites around the world, to track and detect abnormal CO<sub>2</sub> emissions from the most energy-intensive equipment in real time, and propose corrective action.

### Acquisition of start-ups

To help accelerate its development in the electricity business, TotalEnergies acquired 3 start-ups in 2023 that benefited from TotalEnergies' On acceleration program, based in Paris at the Station F premises.

### PlaneTerr R&D partnership

The PlaneTerr project responds to the challenge of energy transition, which requires the massive integration of renewable energy and the electrification of uses (mobility, industrial processes, etc.). It is a collaborative project deployed over 4 years from September 2023 as part of the France 2030 plan operated by ADEME. The consortium comprises two network operators, RTE (coordinator) and GRTgaz, two industrialists, TotalEnergies and Air Liquide, and a public laboratory, Mines Paris PERSEE.

The project has two closely related objectives: to provide a tool for modeling and planning energy systems (gas and electricity), and to implement demonstrators that meet the future needs of energy systems, particularly in terms of flexibility. TotalEnergies OneTech is in charge of preparing studies on Electric Vehicle Charging Infrastructure (IRVE) and thermal storage.



# Our Actions for a Just Transition



Dayapar windfarm, Gujarat, India.

- 55  Our Just Transition Plan
- 58  Advocacy and Sector Initiatives in Support of the Energy Transition
- 60  Acting for the Well-Being of Employees
- 71  Caring for the Environment
- 82  Having a Positive Impact for Stakeholders

# Our Just Transition Plan



**H**ow can we move to a sustainable development model that meets the vital needs of the planet's 8 billion current inhabitants today, and over 8.5 billion by 2030<sup>1</sup>, without compromising the ability of future generations to meet their own needs? As the effects of global warming become more visible, nations are now faced with the essential task of a large-scale transformation, particularly of their energy systems.

Beyond the technological and financial challenges it will pose, this transition process must be just if it is to succeed. It must provide the least developed countries with the clean, reliable and affordable energy they need for their growing populations aspiring to a higher standard of living. The most developed nations, in turn, will need to assist those who could be adversely affected by that transition, should for example their job disappear or the cost of this transition put them in energy poverty.

TotalEnergies is a major player in the energy transition. We are mindful of the issues related to a just transition raised by our activities and our own transformation to achieve net zero emissions by 2050, together with society, and we are providing concrete answers at the heart of our strategy and operations (see table).

We are particularly sensitive to the need to enhance our employees' skills, guarantee decent wages and maintain social dialogue, in the spirit of the International Labour Organization's guiding principles on just transition and the Paris Agreement. We also take actions towards our customers, our suppliers and more generally the communities and countries where we operate. ■

1. Source: un.org



## 100,000 EMPLOYEES

Ensure employability, equal opportunity, social protection and attractive jobs

### OUR DIALOGUE AND CONSULTATION MEANS

- Meetings with employee representatives
- Listening (annual survey - TotalEnergies Survey / TotalEnergies Pulse Survey).

### OUR PROGRESS IN 2023

- 100% of employees receive direct remuneration at least equal to the country's living wage (global reporting in place since 2022).
- Consolidation of the Care Together by TotalEnergies program, guaranteeing high social standards for our employees worldwide.
- 5 training days per year per employee in 2023.
- Upskilling: Visa electricity training (27,000 employees, 118 countries).
- Nearly 10,000 of our employees work in low-carbon energies.
- 24 meetings of the European Central Committee in 2023 (Strategy and Sustainable Development Commissions, safety site visits, etc.).

### OUR 2024-2030 OBJECTIVES

- Deployment of the Care together by TotalEnergies program.
- Continuation of the Upskilling: Visa for TotalEnergies Season 3 programs on digital and generative AI in 2024.
- Deployment of the €2,000 "energy efficiency and transition" individual envelope agreement for our 35,000 employees in France.



## ~120 HOST COUNTRIES

Participate in national energy transition projects by promoting responsible and transparent business conduct

### OUR DIALOGUE AND CONSULTATION MEANS

- Cooperation and partnerships.
- Advocacy and lobbying based on the values and principles of our Code of Conduct.
- Participation in the Extractive Industry Transparency Initiative (EITI).

### OUR PROGRESS IN 2023

- Signing of the Oil & Gas Decarbonization Charter (OGDC).
- Cooperation agreements with national utilities in 5 countries to measure methane emissions (AUSEA).
- Publication of the second tax transparency report.
- Confirmation of agreements for the Gas Growth Integrated Project in Iraq.
- Start-up of floating LNG terminals (France and Germany).
- Two marine concessions to develop two giant wind farms (3GW) in Germany.

### OUR 2024-2030 OBJECTIVES

- Continued deployment of our multi-energy strategy with our partner countries.
- Continuation of AUSA campaigns with national companies.
- Regular publication of our tax transparency reports.



## COMMUNITIES

Contribute to their resilience and sustainable socio-economic development through a constant dialogue

### OUR DIALOGUE AND CONSULTATION MEANS

- Public consultations and societal impact studies for projects, meetings with local stakeholders.
- Dialogue sessions with local/national/international NGOs.

### OUR PROGRESS IN 2023

- By the end of 2023, the EACOP project employed more than 1200 Ugandans and 3,200 Tanzanians.
- Signing (March) of a new Free, Prior and Informed Consent (FPIC) agreements in Tanzania, with the community of Taturu.
- Over 1,500 socio-economic development initiatives supported worldwide.
- Creation of a foundation in Mozambique to support socio-economic development in the province of Cabo Delgado.
- 14,000 solidarity actions around the world by 2023 by 10,000 employees (Action! program).
- France: 37 meetings of the regional think tanks "Territoires des énergies et au-delà", with 500 local players.

### OUR 2024-2030 OBJECTIVES

- Local jobs Tilenga & EACOP: aim to create 78,000 direct and indirect jobs during the construction phase and 4,200 during the operations phase.
- 2024: Lionel Zinsou mission to evaluate the land acquisition program and socio-economic development initiatives.
- Mozambique LNG: Continued deployment of the action plan, based on the recommendations of Jean-Christophe Rufin.



## Millions of customers

Support the transition towards low-carbon, affordable energy consumption

**8 million customers** every day at service stations in 70 countries, nearly **9 million** gas and electricity customers.

### OUR DIALOGUE AND CONSULTATION MEANS

- B2B and B2C commercial relations.
- Management of our 334 key accounts (Energies OneB2B Solutions) and B2B technical and commercial partnerships.

### OUR PROGRESS IN 2023

- Fuel prices capped at €1.99/l at all TotalEnergies service stations in France.
- 50 million people have access to LPG for clean cooking.
- 7.7 million beneficiaries of our renewable electricity production in emerging countries.
- 55,000 charging points operated in Europe, including 1,300 ultra-fast charging stations.
- France: Operation "Bonus Conso" winter 2022-2023 on electricity and gas to encourage sobriety.

### OUR 2024-2030 OBJECTIVES

- France: fuel prices to continue to be capped at €1.99/l in 2024.
- Provide access to LPG for clean cooking to 100 million people in Africa and India by 2030.
- 40 million people served by electricity in emerging countries by 2030.
- 2026: 500 stations equipped with HPC charging stations in France, one HPC charging station every 100 km in towns and on motorways, 1,000 high-power recharging sites in Europe by 2028.
- France: renewal of the "Bonus Conso" scheme for winter 2023-2024.



## 100,000 SUPPLIERS

Encourage the reduction of their environmental impact and promote respect for human rights

### OUR DIALOGUE AND CONSULTATION MEANS

- Awareness campaigns.
- Surveys and questionnaires.
- "Supplier Day".
- Monitoring and auditing platform.

### OUR PROGRESS IN 2023

- 61% of buyers trained in responsible purchasing in 2023.
- 740 supplier audits since 2016 (230,000 workers concerned).
- 171 working conditions improvement plans verified (60,000 workers positively impacted).

### OUR 2024-2030 OBJECTIVES

- Train all our buyers in sustainable development and responsible purchasing by 2025.
- 1,300 suppliers audited by the end of 2025.

# Advocacy and Sector Initiatives in Support of the Energy Transition

## COLLECTIVE INITIATIVES SUPPORTED BY TOTALENERGIES

Axes	Name of the initiative	Perimeter
<b>ENERGY &amp; CLIMATE</b>	<ul style="list-style-type: none"> <li>• 3x Renewables</li> <li>• Oil and Gas Decarbonization Charter</li> <li>• OGMP 2.0</li> <li>• Aiming For Zero Methane</li> <li>• TCFD</li> <li>• UAE- France Bilateral Climate Investment Platform</li> </ul>	Worldwide Worldwide Worldwide Worldwide Worldwide UAE and France
<b>ACTING FOR THE WELL-BEING OF EMPLOYEES</b>	<ul style="list-style-type: none"> <li>• Global Deal</li> <li>• Women's Empowerment Principles – Equality Means Business (UNGP)</li> <li>• Closing the gender gap - a call to action (WEF)</li> <li>• ILO Global Business and Disability Network Charter</li> <li>• The Valuable 500</li> <li>• Manifesto for the inclusion of people with disabilities in economic life</li> <li>• Inclusion and Diversity Pledge (ERT)</li> <li>• LGBT Commitment charter + de L'Autre Cercle (signed again in 2023)</li> <li>• Elles bougent</li> </ul>	Worldwide Worldwide Worldwide Worldwide Worldwide France Europe France France
<b>CARING FOR THE ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• Act4Nature International</li> <li>• CEO Water Mandate</li> <li>• Circular economy commitment AFEP</li> <li>• UN Global Compact Ocean Stewardship Coalition</li> </ul>	Worldwide Worldwide Worldwide Worldwide
<b>HAVING A POSITIVE IMPACT FOR STAKEHOLDERS</b>	<ul style="list-style-type: none"> <li>• The Voluntary Principles on Security and Human Rights (VPSHR)</li> <li>• The United Nations Guiding Principles on Business and Human Rights as endorsed by the UN Human Rights Council in 2011</li> <li>• The United Nations Global Compact Principles</li> <li>• The BTeam Responsible Tax Principles</li> <li>• Partnering Against Corruption Initiative (PACI)</li> <li>• Extractive Industries Transparency Initiative (EITI)</li> </ul>	Worldwide Worldwide Worldwide Worldwide Worldwide Worldwide



successful energy transition requires closer collaboration between all the players involved.

### **Support for government action and climate sectorial initiatives and disclosures**

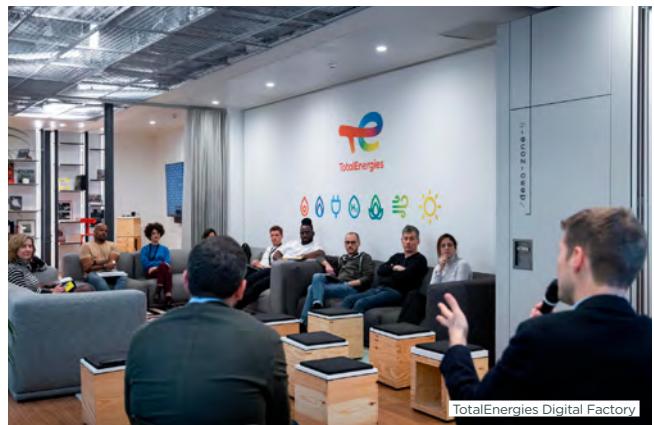
TotalEnergies supports the pledges made by nations worldwide to combat global warming as part of the Paris Agreement and publishes its positions on its corporate website<sup>1</sup>.

At COP28, we supported the goal of tripling renewable energy capacity and doubling energy efficiency measures by 2030. We also joined the Oil and Gas Decarbonization Charter (OGDC) (see p. 40).

In Europe, TotalEnergies supports the "Fit-for-55" package and specifically some of its key components, such as the broader use of carbon pricing, the large-scale expansion of renewable energies, deployment of infrastructure and the development of fuels and renewables for the transportation industry. Our responses to the European Commission's public consultations on climate are public and may be viewed online.

In France, TotalEnergies, along with 60 other major companies, signed the Entreprises Pour l'Environnement (EpE) association's statement calling for an acceleration of the ecological transition, ahead of COP28.

1. Website link: <https://totalenergies.com/sustainability/stakeholder-relationships-advocacy/advocacy-principles>



## Review of affiliations

TotalEnergies has published a list of its industry affiliations on its website since 2016.

The Company typically cooperates with these organizations on technical subjects, but some take public stances on other issues, such as climate. Since 2019, TotalEnergies has conducted a biannual assessment of the public positions on climate and other issues of the main industry organizations of which it is a member. The Company examines whether those positions are aligned with its own, based on the six principles from its Advocacy Directive. A new review was carried out in 2023.

In 2023, most of new associations in the energy field joined by our entities is related to renewable energies and low-carbon technologies.

## Review of affiliations – 6 key principles

### • Scientific position

TotalEnergies recognizes the link established by science between human activities, in particular the use of fossil fuels, and climate change.

### • The Paris Agreement

TotalEnergies recognizes the Paris Agreement as a major step forward in the fight against global warming and supports the initiatives of the implementing States to fulfill its aims.

### • Carbon pricing

TotalEnergies supports the implementation of carbon pricing.

### • The development of renewable energies

TotalEnergies supports policies, initiatives and technologies aimed at promoting the development of renewable energies and sustainable bioenergies (biofuels, biogas) as well as energies and technologies aimed at decarbonizing industrial processes transportation, such as hydrogen, carbon capture and electric vehicles.

### • The role of natural gas

TotalEnergies promotes the role of natural gas as a transition fuel, in particular as a replacement for coal. TotalEnergies supports policies aimed at measuring and reducing methane emissions aiming for zero methane emissions. TotalEnergies promotes a policy of reducing greenhouse gas emissions: avoid; reduce by using the best available technologies; offset the minimized residual emissions.

### • Carbon offsetting

TotalEnergies supports the carbon offset mechanisms necessary to achieve carbon neutrality, through organized and certified markets ensuring the quality and sustainability of carbon credits. ■



# Acting for the Well-Being of Employees

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- 64 \_\_\_ Our Employees at the Heart of the Transition
- 65 \_\_\_ Engaging Every Employee
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# Ensuring People's Safety

## OCCUPATIONAL SAFETY

TARGET

**Zero** fatal accident



### TOTALENERGIES TRIR

Total recordable injury rate per million hours worked.



The number of injuries per million hours worked (TRIR) for Company employees and contractors has improved regularly for many years. It stood at 0.67 in 2022 and 0.63 in 2023.

**S**afety is more than a priority at TotalEnergies; it is a core value on which we will not compromise for any reason. Everyone who works at our sites must be able to return home safe and sound at the end of their workday.

The Company has set a goal of "zero fatalities", and is aiming for ongoing reductions in the number of accidents. Sadly, we recorded two accident-related fatalities in 2023 among contractors staff. An analysis of these cases led to specific action plans (see opposite).

### Actions to prevent fatal accidents

Our actions plans to prevent fatal accidents are based on long-term work to continuously adapt and systematically implement our two global programs in the field: "Our Lives First" and "The Golden Rules". This indispensable fundamental work is supplemented by specific action plans resulting from investigations carried out when new events occur.

### Worldwide roll-out of the "Our Lives First" program

The program is designed to implement three types of practical actions at all of our sites:

- **Life Saving Checks:** five activities have been identified as generating the highest risks which could be the cause of fatal accidents. Safety checklists have been drafted for these activities, to check that work is carried out correctly in the field, in compliance with the safety rules;

## LESSONS LEARNED FROM THE TWO ACCIDENT-RELATED FATALITIES IN 2023

### Zeeland refinery, Netherlands - February 03, 2023

Torsten lost his life during a catalyst unloading operation in an inert atmosphere reactor. Despite the existence of strict rules, intervention by certified personnel and regular checks, this accident unfortunately occurred. We have decided to ban all entry into confined spaces under inert atmosphere for this type of activity. For each new intervention, alternative solutions have been developed, implemented at all TotalEnergies-operated sites and communicated within the industry's safety networks.

### Service station Montpellier, France - May 05, 2023

Isidore was struck by a metal beam he was guiding while handling it with a mechanical shovel. This activity was part of the installation of shoring to consolidate an excavation for the installation of underground wastewater recycling equipment. For these high-risk jobs, work supervision measures at the service stations were stepped up: a TotalEnergies representative is required to be present in the field, detailed procedures specific to each work site were systematically drawn up, and monitoring cameras are now being used.

The lessons learned from this event were shared with all those involved in the field.

## OUR LIVES FIRST PROGRAM

"Our Lives First" program across the Company, in 2023:

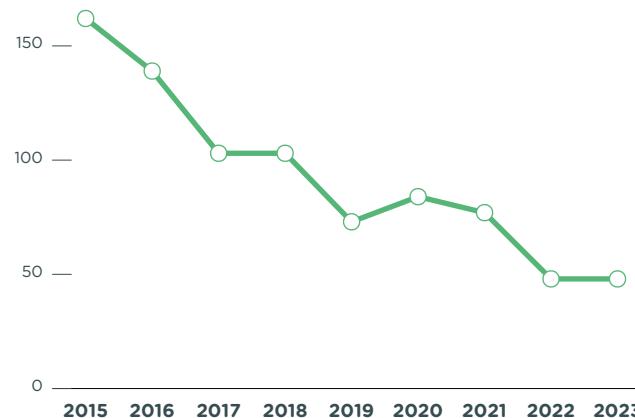
 **200,000**  
Life Saving Checks

 **10,000**  
Joint Safety Tours

 **100%**  
of sites deployed the Safety Green Light

## TOTALENERGIES NUMBER OF TIER 1 AND TIER 2 INCIDENTS (SEE OPPOSITE)

An indicator of the number of losses of primary containment as defined in the API and IGOP standards (excluding acts of sabotage and theft), Tier 1 incidents being those that may have the most serious consequences.



• **Joint Safety Tours:** front-line presence and safety dialogue have been enhanced to promote a shared safety culture. Joint safety tours with TotalEnergies senior management and contractor partners are held in addition to daily visits from local management;

• **Safety Green Light:** the goal is to ensure that the intervening teams understand the risks involved, notably of a fatal accident, before starting work. To this end, a ritual of questions associated with the work permit was integrated into the Our Lives First program from the outset. After two years of practice, we carried out an observation phase to capitalize on feedback and assess the level of adoption. As a result, the form of the document has been revised, and the objectives and expectations clarified. The revised version of the Safety Green Light will be rolled out to all Company sites in 2024.

This program has 3 main focuses:

- reassess the effectiveness of critical barrier management for each major accident scenario.
- facilitate the management of major risks by visualizing critical barriers.
- improve understanding and management of prevention tools for operational staff.

On April 28, 2023, World Safety Day, the prevention of major technological risks was the theme of discussions and presentations were made to all employees of the Company and partner companies.

We track Tier 1 and Tier 2 losses of primary containment, as defined by the industry standards. The prevention policy we have implemented, based on managing technical integrity and operational excellence, has resulted in a four-fold decrease since 2015. The Company did not experience any major industrial accidents in 2023.

## PREVENTING MAJOR TECHNOLOGICAL RISKS AND ACCIDENTAL POLLUTIONS

TotalEnergies' facilities and activities are exposed to technological risks, and the prevention of major industrial accidents is an essential part of the Company's safety policy. All our facilities are subject to systematic studies to identify hazards and analyze the associated risks, with the aim of controlling risks in order to prevent a major accident, to protect people, the environment and assets. All risks are studied, and technical-, organizational- and human barriers are identified and implemented to guarantee risk control.

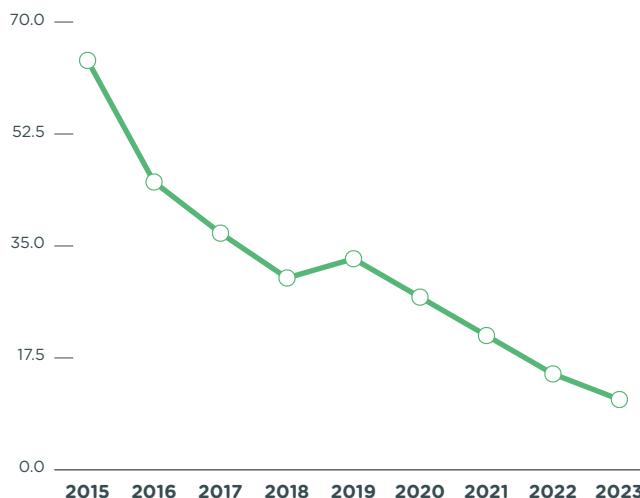
In 2023, a multi-year plan has been initiated to continue strengthening the control of major technological risks for all field operatives.





### NUMBER OF SEVERE ROAD ACCIDENTS

Number of road accidents resulting in the vehicle rollover or an injury of the driver or the passenger.



## ROAD TRANSPORTATION

The risk of road accidents is one of the main safety risks at the workplace for TotalEnergies. The Company has for many years had a policy based on rules, driver training, communication, technical vehicle specifications and an extensive carrier inspection program.

This policy has led to a steady decline in the number of accidents. The number of serious accidents has been divided by 6 since 2015. To prevent road accidents, several technological innovations have been tested, implemented as a priority in countries with high road risk and we have decided to extend them to all countries where the Company operates.

These technologies are:

- lane departure warning system;
- forward collision warning;
- advanced emergency breaking;
- fatigue and distraction detection. ■

### HIGHLIGHTS ✓

#### #Safe Driver

Since 2016, TotalEnergies has been carrying out #SafeDriver awareness campaigns aimed at all TotalEnergies employees and those of our partner companies who use light and heavy vehicles in the course of their duties. The aim is to challenge users, to remind them of the basic rules of driving and the importance of respecting them, and to encourage change in practices and behavior, accompanying it with a participative approach and exchanges in the field.

#### Road Safety Index

On June 26, 2023 in Stockholm, the Fédération Internationale de l'Automobile (FIA)



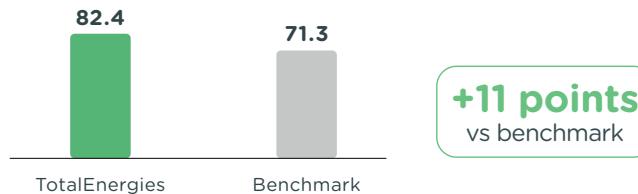
awarded 3 stars, the highest level of recognition, to TotalEnergies as part of its new Road Safety Index. The FIA Road Safety Index is a tool that enables organizations

and companies of all sizes to measure their road safety impact across their entire value chain, report on their action in this area and improve their performance. More broadly, the Road Safety Index supports the commitment of all players to safer, more sustainable mobility. TotalEnergies is the first private-sector Company to receive 3 stars in the FIA Road Safety Index.

# Our Employees at the Heart of the Transition

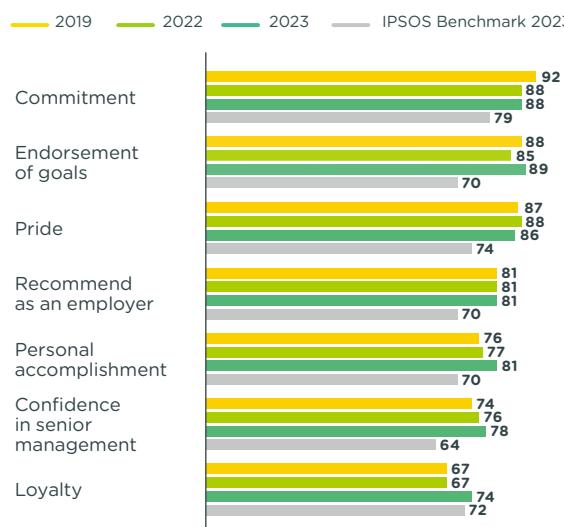
## 2023 TOTALENERGIES ENGAGEMENT SCORE

IPSOS Benchmark composed of companies larger than 10,000 employees throughout the world. In %.



## TOTALENERGIES ENGAGEMENT INDEX 2023 AND IPSOS BENCHMARK<sup>1</sup>

IPSOS Benchmark composed of companies larger than 10,000 employees throughout the world. (% agree)



ur employees are at the heart of our performance, and their engagement is essential to the success of our transition. Our people ambition *Better Together* brings together a set of measures to make the Company a good place to work together, and to lead a just transition.

We believe that listening to our stakeholders is an essential part of the just transition, and this is achieved through social dialogue and participatory approaches with our employees.

Every two years, our employees around the world take part in the TotalEnergies survey to understand their perception of the Company along different themes (the Company ambition, collective performance, management, talent development, working conditions, etc.).

On the Executive Committee's decision, a complementary and more concise survey was launched in 2023, the TotalEnergies Pulse Survey, which will now take place alternately every other year, to enable the measurement of employee engagement and well-being, on an annual basis. In 2023, the engagement score for TotalEnergies was 82.4%, up 2 points from 2022<sup>1</sup>.

After the invitation of 300 young employees in 2022, nearly 300 employees aged 35 to 45 were invited in 2023 to discuss and debate with members of the Executive Committee and senior executives on key topics for the Company. In 2024, the program for the next campus will focus on technical professions. ■

## HIGHLIGHTS ✓

### Visa for TotalEnergies, a global upskilling program

As part of its just transition plan, TotalEnergies has designed the "Visa for TotalEnergies" program as a global upskilling program, aimed at preparing all employees for the new challenges facing the Company and society in general, as well as supporting the development of their skills. This multi-year training program is deployed in several seasons, each one devoted to a key aspect of the Company's transition. After a first season focusing on the climate challenges and the answers provided by the Company's ambition, season 2 has enabled the training of more than 27,000 employees in 118 countries in the fundamentals of electricity, the main lever for decarbonizing the energy mix (production, uses, value chains, markets and business models). In 2024, the program continues and with an aim to accelerate the appropriation of generative Artificial Intelligence tools in the service of collective performance.

1. Results scope: Company without Hutchinson.

# Engaging Every Employee

SUSTAINAB'ALL

**10** OBJECTIVES AND KPIs  
TO MOBILIZE ALL EMPLOYEES  
IN THE TRANSITION

**±250**

SITES, BUSINESS UNITS, DEPARTMENTS  
OR SUBSIDIARIES COMMITTED TO  
A 3-YEAR ACTION PLAN WITH TARGETS

MORE THAN

**94%** OF EMPLOYEES  
MOBILIZED<sup>1</sup>

**34,000**

EMPLOYEES TOOK PART  
IN THE 1<sup>ST</sup> SUSTAINB'ALL DAY  
ON OCTOBER 6, 2023



TotalEnergies' ambition calls for the mobilization of its employees. In 2022, more than 27,000 of them participated in the development of **10 objectives and indicators linked to the United Nations Sustainable Development Goals (SDGs)**, organized around 4 axes: climate and sustainable energy, employees' well-being, care for the environment and positive impact for our stakeholders. Together, they form the Sustainab'ALL program (see p. 70).

In 2023, nearly 250 sites, business units, departments or subsidiaries of the Company worldwide, representing over 94% of employees<sup>1</sup>, have committed to a 3-year action plan for each of the 10 indicators, with targets to be reached by 2025. These action plans are linked to the activities of the entity concerned, and its specific local features.

The aim of this program is to mobilize the entire Company around the Sustainable Development Goals. With Sustainab'ALL, we want to show that every subsidiary, site or entity can contribute to the SDGs, and that the SDGs enable us to participate in the Company's transition.

On October 6, 2023, the Company organized the first global day dedicated to the Sustainab'ALL program and the challenges of sustainable development. This event, which took place in all entities, sites and local business units, brought together more than 34,000 employees, who were able to

discuss their concrete actions through workshops, stands and conferences. These actions are highlighted in the form of "stories", concrete illustrations of the Company's contribution to sustainable development. ■

1. Results scope: Company without Hutchinson.

## HIGHLIGHTS ✓

### A pioneering collective agreement for the energy transition of our employees in France

TotalEnergies is committed to support its 35,000 employees in France in their own ecological transition efforts to make their energy consumption or their mobility in their daily lives more sustainable, thereby making a positive contribution to our decarbonization targets in France. The 5-year agreement signed with the Company's trade union representatives provides an individual "energy efficiency and transition" allowance of €2,000, and complements the services and products offered to employees by the Company's businesses. We will be sharing our experience of this initiative with members of EpE (Entreprises pour l'Environnement) who have undertaken similar actions for their employees.

# Attracting, Developing and Retaining Talents

AVERAGE NUMBER OF TRAINING DAYS  
PER YEAR AND PER EMPLOYEE



WE ARE ONE OF THE

## Top 10

COMPANIES PREFERRED BY YOUNG MANAGERS  
IN FRANCE ACCORDING TO THE ANNUAL RANKINGS  
ESTABLISHED BY THE UNIVERSUM AGENCY

**23** UPSKILLING COURSES DEVELOPED OVER  
2 YEARS IN ORDER TO OFFER EMPLOYEES  
THE ACCURATE TRAINING TO MOVE  
INTO OTHER TECHNICAL DISCIPLINES

**D**eveloping everyone's skills is a major challenge for a just transition. Our goal is to empower all employees to take charge of their career development, notably through the internal mobility platform, or to freely decide which training courses they consider important for their development, up to three days per year, in addition to mandatory training.

Launched in 2022, the Transforming with our people program has enabled us, over a 2-year period, to support the skills development of our employees with the "Visa for Total-Energies" training program (see p. 64), and the "live round-tables", which over 18 months, between January 2022 and July 2023, have highlighted 32 key projects that illustrate the opportunities offered by the energy transition.

The OneTech branch, which brings together 3,400 engineers, technicians and researchers from the various sectors of the Company, has created a hub of technological excellence serving all the Company's multi-energy activities. The concentration of technical skills makes it possible to build multidisciplinary teams to carry out new industrial projects, regardless of the sector of activity. This decompartmentalization of skills thus strengthens the operational excellence of the Company. In 2023, the engineers of the Technologies department worked on average on more than 11 different assets, divided between the exploration and production of hydrocarbons, refining, electricity, renewables or low-carbon fuels, thus increasing opportunities to develop their skills and

allowing different assets to benefit from their expertise. For example, our naval architecture experts are now deploying their skills on our new offshore wind farm construction and installation sites. ■

### HIGHLIGHTS ✓

#### Acquisitions: integrating new skills

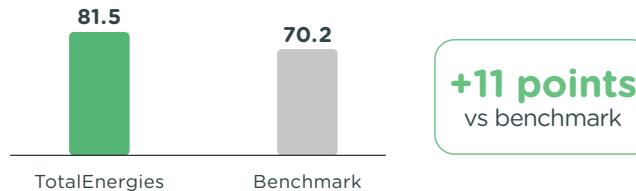
Our ambition to rank among the top 5 producers of wind and solar energy, and to become an integrated electricity player, led us, in 2023, to acquire companies specializing in renewable energies with Total Eren, biogas with Polska Grupa Biogazowa in Poland, agrivoltaics with Ombrea in France and renewable energies aggregation in Germany with Quadra Energy.

These acquisitions will enable us to meet our growth challenges and integrate the skills of nearly 700 people, essential to the energy transition to which we are committed. To retain these talents and strengthen their sense of belonging, we have set up a comprehensive onboarding program, harmonized in France and internationally. It includes all the information needed to understand how the Company and the Gas, Renewables & Power Division work, how to develop everyone's individual talents, as well as face-to-face events to encourage live encounters and exchanges between teams.

# Building a Good Place to Work

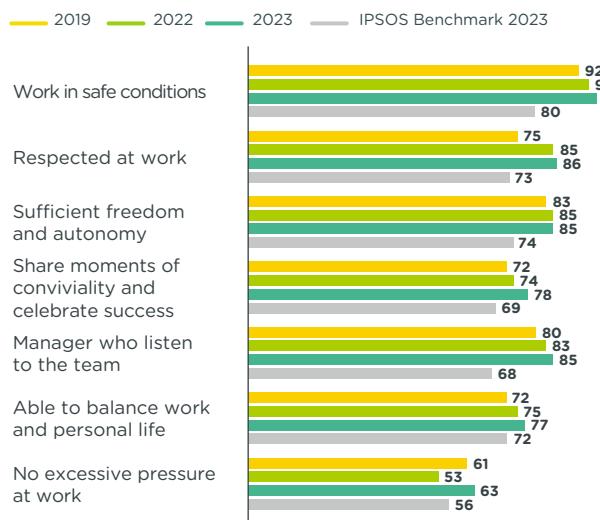
## TOTALENERGIES CARE SCORE 2023

IPSOS Benchmark composed of companies larger than 10,000 employees throughout the world. In %



## TOTALENERGIES CARE INDEX 2023 AND IPSOS BENCHMARK<sup>1</sup>

IPSOS Benchmark composed of companies larger than 10,000 employees throughout the world. (% agree)



The Company's commitment to social responsibility is reflected in the Care Together by TotalEnergies program. In addition to commitments specific to each affiliate, this program guarantees compliance with high social standards for all its employees worldwide, regardless of the legislation in force in any given country.

Remarkable for its scope, this program is based on concrete measures revolving around four essential pillars: social protection, health, the family sphere and working conditions. For example, every employee worldwide has access to medical monitoring, health insurance and a death benefit plan, and childcare leave. In terms of mental health, the Company has a worldwide policy of preventing psychosocial risks (see table on next page).

With the aim of developing a culture that fosters well-being on a daily basis, we help our employees to preserve their balance in a safe working environment, by reinforcing the attention that everyone pays to the well-being of their colleagues and encouraging local managers to create a working environment conducive to sustainable performance. We are thus providing our employees with a specific training offer within a framework that, since early 2023, has enabled every employee to take three days of training of his or her choice. Since 2023, the Company has been running "Green Fridays". This innovation liberates calendar from any collective meetings scheduled by management every other Friday, and allow employees to organize their work.

In order to measure our progress and draw up action plans, in 2022 we defined, in collaboration with IPSOS, an annual measurement of our employees' level of well-being using a Care index based on 7 criteria (see graph). In 2023, our score is 81.5%, an increase of almost 3 points<sup>1</sup>. ■



**Care Together by TotalEnergies reflects our intention to make TotalEnergies a company that is a good place to work together. We believe that employees' well-being is a key factor in our performance and attractiveness. This program increases our social commitments and establishes us as a responsible company for all our employees by promoting high standards worldwide."**

**PATRICK POUYANNÉ**

Chairman and Chief Executive Officer, TotalEnergies

1. Results scope: Company without Hutchinson.

**OBJECTIVES**
**OUR WORLDWIDE ACTIONS**

# 100%

of employees receive direct remuneration at least equal to the living wage in the country or region in which they work

## Social protection

Ensuring living wage and quality social protection for all our employees, regardless of their location

- Ensure all employees a direct wage at least equal to the living in the country or region in which they work.
- Where appropriate, set up a health insurance plan, in addition to the legal plans in force.
- Set up a death benefit plan, whatever the cause, at least equivalent to two years' gross reference salary.

# 77%

of employees received medical follow-up every two years

## Health

Preserving the physical and mental health of all our employees worldwide

- Provide medical follow-up to our employees exposed to occupational risks that may have harmful effects on their physical and mental health.
- Propose to our employees a health check at least every two years unless specific local regulations or contexts require otherwise.
- Deploy a global policy for the prevention of psychosocial risks to protect employees' mental health.

# 99%

of female employees benefit from 14-week maternity leave with 100% pay

## Family sphere

Give employees the opportunity to take care of their families

For pregnancy or adoption:

- Guarantee a minimum of 14 weeks of childcare leave for the first parent and two weeks for the second parent, with basic salary maintained at 100% (subject to more protective local measures).
- Neutralize absences for childcare leave, by granting the first parent, when returning from childcare leave, an increase equal to the average of individual increases received over the last three years.

# 94%

of the Company's companies run information campaigns or organize events to promote employee well-being

## Working environment

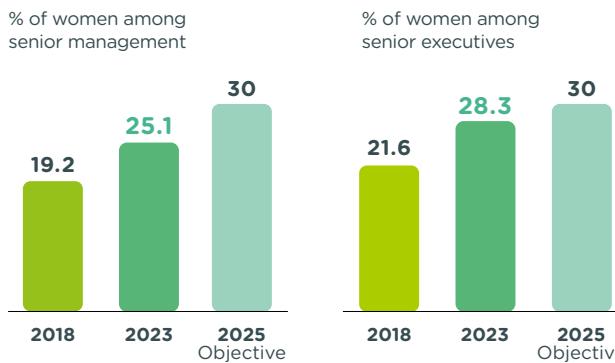
Promote a flexible, modern and attractive work organization for our employees, while preserving collective efficiency in a safe working environment

- Generalize the use of flexible working hours with clear rules and trust our employees to take responsibility for the way they manage remote working as part of their day to day activities.
- Conduct information campaigns and awareness-raising initiatives on employee well-being and work-life balance.

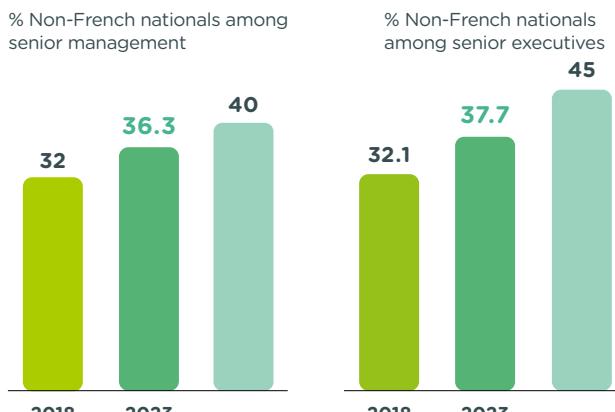
# Promoting Diversity and Inclusion

## Diversity 2025 roadmap: Ongoing progress

### EVOLUTION OF GENDER DIVERSITY



### EVOLUTION OF INTERNATIONALIZATION



D

iversity of talent and management is a decisive lever for progress for a company like TotalEnergies, in that it increases our competitiveness, our capacity for innovation and also our attractiveness. Being inclusive means taking into account all talents within a team, and recognizing that we need all talents. It's the key to making a success of the transition to which we are collectively committed, without leaving anyone behind.

### Understanding our differences

In 2023, Inclusion Talks awareness campaigns were held around a variety of themes: LGBTQIA+, unconscious bias, the place of women in the transformation, inclusive management, domestic violence... These talks help everyone to take ownership of these issues, and demonstrate the links between these subjects and the Company. Testimonials from employees in different subsidiaries around the world also illustrated that inclusion is shaped by the culture and history of different countries.

### Acting for the disabled

Since 2018, we have joined the International Labour Organization (ILO) network, committing ourselves to promoting as a priority, 5 major principles of the Global Business and Disability Network Charter. To date, 41 Company subsidiaries have committed to creating a more inclusive working environment for employees with disabilities, while respecting the specific features of each country. ■

### HIGHLIGHTS ✓

#### Preventing discrimination based on sexual orientation and gender identity

In June 2023, TotalEnergies signed the LGBT+ commitment charter created by the organization L'Autre Cercle for the second time, in the presence of its CEO Patrick Pouyanne and other members of the Company's Diversity and Inclusion Council. In addition, a first round table on the inclusion of LGBTQIA+ employees in the workplace was also organized in May 2023 with representatives from other companies. The aim? To share best practices and promote discussion on the subject within the Company in order to prevent all forms of discrimination based on sexual orientation and gender identity.

TotalEnergies has also revised its parenting policy to adopt a neutral definition of the family that takes into account the diversity of existing family structures. By the end of 2023, 67.3% of the Company's companies had amended their practices to reflect this new concept<sup>1</sup>.

1. Results scope: Company without Hutchinson.

# Sustainab'ALL

## TOTALENERGIES' AMBITION IN SUPPORT OF SUSTAINABLE DEVELOPMENT

TotalEnergies' ambition to be a major player in the energy transition, on the road to net zero by 2050, together with society, will require the mobilization of our 100,000 employees.

More than 27,000 TotalEnergies employees took part in workshops during 2022, to develop ten objectives and indicators aligned with the United Nations Sustainable Development Goals (SDGs). In 2023, every TotalEnergies site, business unit and affiliate worldwide has adopted an action plan with targets to be met by 2025. Each plan is based on actions that are directly related to the entity's local operations in the field. These plans form our Sustainab'ALL program, in which TotalEnergies sets out its material contribution to sustainability.

### 10 KPIS COVERING THE PERIOD 2023-2025 IN SUPPORT OF OUR TRANSITION

#### OUR KPIs

#### OUR CONTRIBUTION TO SDGS

##### TotalEnergies, becoming a global player in Sustainable Energy

- ① Low-carbon energy produced, or low-carbon energy sold (in energy unit)



- ② Energy consumption (in energy unit) and low-carbon energy consumption (in energy unit)



- ③ Number of suppliers with local sales over \$10,000 with a climate commitment, i.e. having a plan with climate goals (in number and in % of total number of suppliers)



- ④ Number of innovative solutions that help us use less and better energy, or produce and sell more low-carbon energy



##### Thanks to our commitment to a just transition for our people

- ⑤ The level of employee engagement measured once a year via TotalEnergies' engagement index



- ⑥ Number of hours of training per employee per year



- ⑦ Share of women among NP14+ (in %) and share of international staff among NP15+ (in %)



##### TotalEnergies saves natural resources

- ⑧ Sum of weight of recycled waste and recycled feedstock (in tons)



- ⑨ Number of biodiversity plans being deployed



##### TotalEnergies creates shared value

- ⑩ Share of spending with local stakeholders as a % of total spending = local wages + local spend + societal spend/opex + capex (in %)



TotalEnergies has been a member of the UN Global Compact since 2016 and supports the United Nations Sustainable Development Goals. We issue a special report<sup>1</sup> that details our progress in fulfilling the SDGs. That report supplements the Company's other voluntary reporting initiatives, including our GRI report<sup>2</sup> and the Global Compact Communication on Progress<sup>3</sup>.

1. [https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2022-11/SDG\\_Report\\_2021-2022.pdf](https://totalenergies.com/sites/g/files/nytnzq121/files/documents/2022-11/SDG_Report_2021-2022.pdf) 2. <https://totalenergies.com/sustainability/reports-and-indicators/reporting-standards/gri>

3. <https://cop.unglobalcompact.org/view/8462>

# STORIES

## Sustainab'ALL Day: a collective success

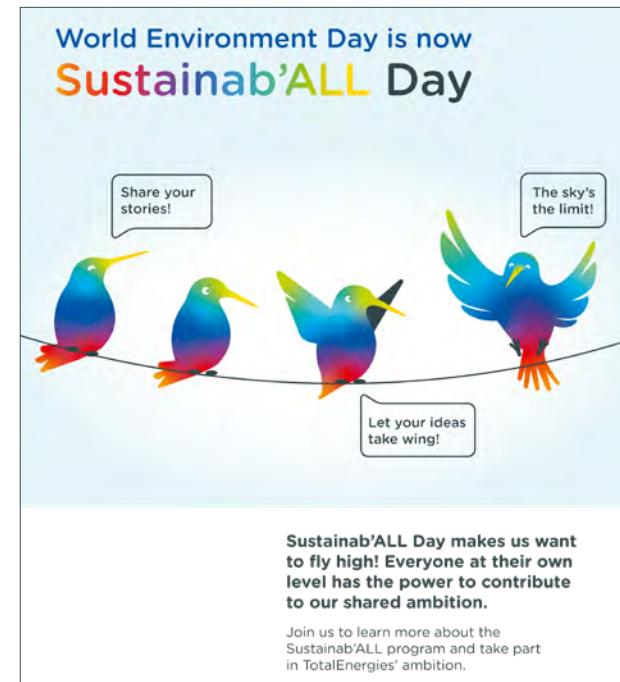
This year, the Company celebrated its first Sustainab'ALL Day, a day dedicated to the program that gives concrete expression to our contribution to sustainable development. Each site organized activities and events adapted to its context and priorities. Here's a selection from each site.

• **For sustainable energy growth, at Normandie in France:** on this occasion, all eyes turned to the platform's future, thanks to the organization of an information session on the project with Air Liquide to install an electrolyzer and supply green hydrogen to the Compagnie's facilities.

• **Reducing our carbon footprint, in La Défense, France:** IT teams got together to carry out a major clean-up of their IT tools. The result: 132 participants, 12 workshops, 80 kg of IT equipment collected, 6 terabytes of data deleted and advice shared.

• **Involving employees in the transition to sustainable development in Singapore:** the Sustainab'ALL Day was not 1 day, but 3. A marathon event for teams, who were able to discover and share the Company's sustainable development objectives, through round tables, screenings and awareness-raising workshops.

• **Preserving natural resources in Dubai, United Arab Emirates,** where our teams took action in favor of the environment



and biodiversity. On the program: clean-up and waste collection in teams on the beach. Objective: to protect the mangroves and wildlife of the Jebel Ali marine sanctuary.

• **Creating shared value by increasing local content:** this is the objective that teams working on the Begonia project in Angola wanted to celebrate at Sustainab'ALL Day. This was a way of highlighting the close partnership with local subcontractors to maximize the supply of services needed to build subsea equipment locally in Lobito. ■

## OneTech Graduate Program, a talent integration accelerator

In 2022, TotalEnergies welcomed the first class of the OneTech Graduate Program to its OneTech branch. This integration-accelerating program offers 60 young engineers of 23 nationalities, the majority of whom were women, the opportunity to gain initial experience in all areas of energy, from oil and gas to electricity (solar, wind, batteries, gas power plants) and low-carbon molecules (hydrogen and biogas).

This two-year program is structured around 3 successive 8-month assignments, including at least one in a Research and Development entity. A special feature of the program is the rapid recruitment process, which encourages exchanges with the Company's managers and experts; cross-functional learning expeditions and tailor-made assignments to meet operational needs.

**The result:** creating a collective of young multi-energy engineers, for whom accelerated learning of the Company's challenges and the building of a network are an essential factor of integration. Building on the success and attractiveness of the program, a new class of 30 graduates will be recruited in October 2024, for a new two-year OneTech Graduate Program. ■



Marsh Harrier at the Zeeland refinery site (Netherlands).

# Caring for the Environment

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# Caring for the Environment



Our ambition is to place environmental performance at the heart of our projects and operations. For us, it's a question of operational excellence. In concrete terms, this means developing our activities, including renewable ones, while protecting the environments in which we operate, in particular by limiting our discharges.

It means taking into account the freshwater issue and therefore the preservation of water bodies in our upstream and downstream operations. It means being a player in circularity by developing recovery channels for the waste from our sites, and by making a concrete contribution to this "resource

efficiency" particularly through our production of circular polymers. This means acting to protect biodiversity, by paying close attention to land use and making commitments to preserve forest areas.

Finally, it means integrating these issues into our value chain: through our responsible purchasing roadmap (see p.94). In 2023, we made progress in implementing our environmental objectives. ■

1. World Business Council for Sustainable Development. 2. PricewaterhouseCoopers. 3. Ipieca: association for the advancement of environmental and social performance in the context of energy transition.

**N**ature provides a large range of services, known as "ecosystem services", which are directly or indirectly necessary for all human activities on earth. We are one of the many players who depend on these services. What's more, like all human activities, our operations have an impact on ecosystems.

In 2022, the world adopted a Global Biodiversity Framework, with quantified targets for States by 2030. We support this ambitious and concrete agreement. It also calls on companies to be transparent across their value chain. This agreement highlights the importance of nature in the broadest sense. It recalls the link between climate and biodiversity, climate change being listed by the IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) as the third leading cause of biodiversity loss.

## TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD)

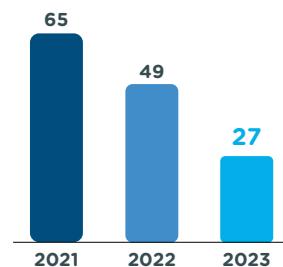
TotalEnergies is a member of the Taskforce on Nature-related Financial Disclosures (TNFD) forum and took part in the pilot for the energy sector coordinated by the WBCSD<sup>1</sup> and PwC<sup>2</sup>. We shared the feedback from our pilot widely with TNFD members on the sidelines of COP 15 Biodiversity, with Ipieca<sup>3</sup> and at a meeting organized by EpE and the *Institut de la Finance Durable* in 2023. With a view to implementing the CSRD (Corporate Sustainability Reporting Directive), the Company has also begun mapping its Nature-related Dependencies, Impacts, Risks and Opportunities. The first elements of this analysis, shared with the Company's main Business Units, highlight the following points:

- the dependence of its installations on water resources (refineries, petrochemical sites, CCGT), on the availability of land (direct for solar farms and indirect for its feedstock of agricultural origin), and on weather conditions (renewable farms);
- the impacts linked to its greenhouse gas emissions, potential pollution, its physical footprint, for example for the establishment of wind farms;
- the risks associated with extreme climatic events, water stress and rising land prices;
- opportunities for reducing greenhouse gas emissions, CO<sub>2</sub> capture and sequestration, reduction of plastic pollution, improvement of biodiversity, reduction in the use of chemical fertilizers (biogas digestate).

# Environmental Protection

## NUMBER OF ACCIDENTAL SPILLS

Number of accidental spills of liquid hydrocarbons in excess of one barrel into the environment, excluding acts of sabotage



# 100%

PROPORTION OF OUR SITES THAT HAVE IDENTIFIED A RISK OF ACCIDENTAL POLLUTION THAT HAVE AN ANTI-POLLUTION PLAN IN PLACE

## OUR DISCHARGE REDUCTION TARGETS

**-75%  
in 2030** IN 2030 COMPARED WITH 2015 SULFUR DIOXIDE EMISSIONS

**<1 MG/L  
in 2030** HYDROCARBON CONTENT IN WATER DISCHARGED FROM ONSHORE SITES



Reducing the environmental risks associated with liquid, gaseous and solid discharges into the environment is our top priority in controlling the environmental impact of our operations.

### Preventing the risk of accidental pollution

We apply the highest standards to reduce the risks inherent to the nature of our activities:

- maritime and river transport of hydrocarbons; selection and vetting of chartered vessels in accordance with the best international standards (OCIMF and EBIS) and use of Marine Terminal Management and Self Assessment (MTMSA) in operated terminals;
- Implementation of a Company-wide crisis management system to deal with a major accidental spill, backed up in the field by regular mandatory exercises to test the pollution control plans of Company-operated sites at risk of spills reaching surface water.

In 2023, training and a specific exercise were organized for TotalEnergies' Sea Transport activities, based in Singapore, Geneva and Paris, with the intervention in Singapore of the Oil Spill Response Ltd center.

### Reducing our industrial discharges

Our activities generate emissions such as combustion fumes, atmospheric emissions from transformation processes and water discharges.

The Company often goes beyond compliance with applicable regulations to limit the quantities discharged into the various environments:

#### • Sulphur dioxide ( $\text{SO}_2$ )

Target of 75% reduction in emissions between 2015 and 2030. By 2023, we have reduced these emissions to 12 kt  $\text{SO}_2$ , a reduction of 80% compared to 2015.

#### • Discharge of hydrocarbons into water

In January 2022, the Company set itself a new target for the quality of water discharged from our **onshore sites** by 2030. Compared with the previous target of 15 mg/l, it divides by 15 the maximum hydrocarbon content expected for these discharges. To date, 100% of onshore sites comply with the previous 15 mg/l target, and 86% with the reinforced 1 mg/l target introduced in 2022. Studies have been launched to improve discharges from sites that have not yet met the new target.

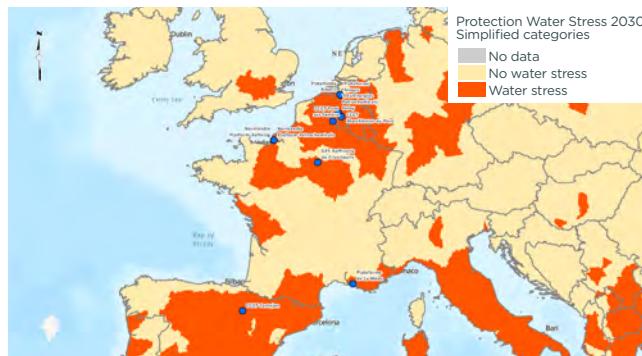
At our **offshore sites**, the average hydrocarbon content of water discharges is 11.6 mg/l, well below our objective of keeping it below 30 mg/l. ■

1. Oil Companies International Marine Forum: industry association of the world's leading oil companies. 2. European Barge Inspection Scheme.

# Taking Action to Preserve Water Resources

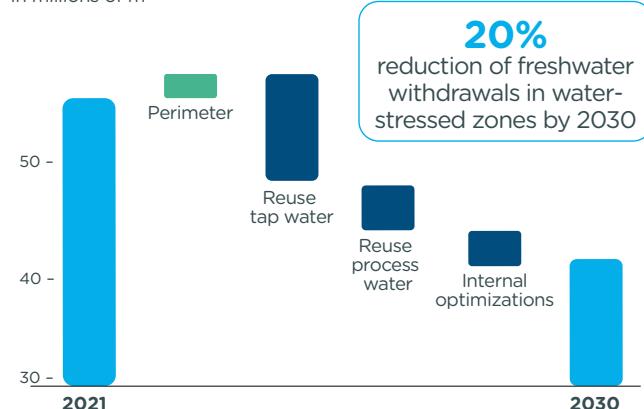
## SIMPLIFIED MAP OF WATER-STRESS AREAS IN 2030

Location of sites in water-stressed areas in Europe. Simplified map fed with Aqueduct 4.0 data (World Resources Institute) and combining the 3 scenarios for 2030.



## OUR ACTION-LEVERS TO REDUCE WATER WITHDRAWALS AT PRIORITY SITES

In millions of m<sup>3</sup>



In 2022, we joined the CEO Water Mandate, part of the United Nations Global Compact, joining a platform of over 200 companies committed to advancing water management. Our 2023 actions are in line with this mandate.

### Reducing freshwater withdrawals in our direct operations

Freshwater represents 7% of the water used at our operated sites, and we have decided to focus our efforts on this unevenly distributed resource on the planet that we share with our neighbors.

Our target is to reduce our overall<sup>1</sup> freshwater withdrawals by 20% at sites located in water-stressed zones<sup>2</sup> between 2021 and 2030. In 2023, we have reassessed the priority sites on the basis of updated projections from WRI's Aqueduct tool. Eleven priority sites are now covered by this target<sup>3</sup>, with the inclusion of one of the combined-cycle power generation plants acquired in Texas in early 2024. Located mainly in Western Europe, they represent, in 2023, 49% of the Company's total freshwater withdrawals, i.e. 50 Mm<sup>3</sup>.

In 2023, the sites concerned launched detailed studies to reduce their freshwater withdrawals, in line with our 2030 target. Our Antwerp platform, for example, has a plan to reduce its freshwater consumption by 65%, replacing it by water from the Antwerp municipal wastewater treatment plant. The La Mède biorefinery has put in place a plan to

reduce its water withdrawal by 50% by 2030 by optimizing its processes and installing a variable flow pump.

### Contributing to collective programs

**The French government's Water Plan** (March 2023): we are contributing with water-saving plans for our sites at Donges (Loire-Atlantique), La Mède and SOBEGI (Pau region).

**Eco d'Eau:** we joined in December 2023 this collective initiative by French companies to promote sustainable water management and in 2024 will be raising awareness of eco-gestures among our employees and customers at our truck stops in France.

**Mobilizing industrial players:** we participate in the work of the Ipieca working group on water and welcomed its members in October 2023 for a sharing of best practices.

<sup>1</sup>. 20% is the target integrated in the reduction for each of the site. This is an initial approach aligned with the definition of water stress. <sup>2</sup>. Water-stressed zone 2030: Water-stressed zones as defined by WRI (zones in which withdrawals exceed 40% of available resources). <sup>3</sup>. Sites concerned: our refineries at Normandie, Grandpuits and La Mède (France), Leuna (Germany), Feluy and Antwerp (Belgium), the CCGTs at Marchienne-au-Pont (Belgium) and Pont-sur-Sambre (France), and Castejón (Spain) as well as Wharton (USA), and our operated assets at Barnett (USA). These sites represent 97% of our withdrawals in water-stressed areas. These sites are located in the following watersheds: Maas and Scheldt (Belgium), Seine, Côtes Ouest and Sud (France), Elbe (Germany), Ebro (Spain) and Gulf Coast (USA).



Swamp in Mesopotamia, Iraq.

### Seawater treatment plant project in Iraq

In Iraq, to maintain reservoir pressure in the oil fields of southern Iraq, oil operators are currently drawing large quantities of water from the country's two main rivers (the Tigris and the Euphrates) and from aquifers.

The project for the sustainable development of natural resources in the Basra region, entrusted to TotalEnergies by the Iraqi authorities, includes the construction of a seawater treatment plant at Khor Zubair with a capacity of 290 million m<sup>3</sup> per year. This project will reduce water stress on the two rivers, which supply water to the local population and agriculture, while providing the volume of water needed to maintain pressure on the oil fields in southern Iraq.

### Promoting access to fresh water for local populations

Access to water is fundamental to local development. As part of our fuel distribution activities in Africa, we run several Water Sanitation And Hygiène (WASH) programs to provide access to water for local communities in connection with our operations.

In Kenya, our Marketing Services subsidiary experimented in 2023 leasing space in service stations to Glug, a local company specializing in water supply, to distribute drinking water to neighboring communities by digging wells and installing a water treatment system.

In Mozambique, we support actions aimed at guaranteeing equitable access to drinking water and improving sanitation and hygiene services for all local communities. Since the start of the program, 75,000 people have benefited from the rehabilitation of over 100 water sources in the districts of Palma and Mocímboa da Praia, which are now managed by local communities. ■

# 290M m<sup>3</sup>/year

SEAWATER TREATMENT CAPACITY OF THE SEAWATER TREATMENT PLANT CONTRACTED TO TOTALENERGIES BY THE IRAQI AUTHORITIES

# Developing Circular Management of Our Products



## CREATING VALUE FROM CIRCULAR RAW MATERIALS

### Reduce • Recycle

- Double the quantity of circular raw materials entering our facilities by 2030.
- Achieve 75% waste and residues in our biofuel production by 2024.
- Produce 2 TWh of biogas by 2025, mainly from waste, with a target of 10 TWh in 2030 (eq 20 TWh in 100% capacity).

## OFFERING OUR CUSTOMERS A RANGE OF LOW-CARBON ENERGY AND CIRCULAR POLYMERS

### Reduce • Rethink • Recycle

- Produce 1 Mt/year of circular polymers in 2030.



## PRODUCING RESPONSIBLY

### Reduce • Reuse • Recycle

- 70% recovery of waste from our sites.

### Reduce

- Evaluate our 1,300 priority suppliers with regard to their overall sustainable development performance by the end of 2025 (GHG emissions, biodiversity, water, waste/circularity).



Making progress in the circularity of our products and waste is another way of reducing our environmental footprint. We do this through our production of biofuels, biogas and circular polymers. At our sites, promoting the circular management of resources starts with responsible management of our waste.

### Valorizing waste from our sites

In early 2022, we have set ourselves the goal of valorizing over 70% of our waste. Our approach, based on the “Reduce - Reuse - Recycle – Recover” principle, has enabled us to recover 61% of waste from our operated sites by 2023. This is the same ratio as in 2022. This is due to the long timeframes we take to develop new processes. To meet our objective, we are setting up demanding waste management contracts and partnerships with international waste treatment companies, both in France and in our host countries. This contributes to the local development of waste treatment industries in the countries where we operate. Lastly, we integrate the issue of resource saving into the value chain with our suppliers (see p. 94).

### Creating value from circular raw materials

For biofuel production, we have set ourselves the target of increasing the share of circular feedstocks (waste oils, animal fats) to over 75% by 2024. Biogas is mainly produced from agricultural waste (see p. 49-50). Our goal is to reach a capacity of 20 TWh biomethane equivalent by 2030 (i.e. 10 TWh of production in TotalEnergies’ share).

## HIGHLIGHTS ✓

### Our partnerships: le Club Circul'R

In 2023, we joined the Circul'R Club, which brings together over 100 French companies and institutions (businesses of all sizes, funders, local authorities...) and aims at encouraging the transition of existing business models towards circular models.

Since the end of 2023, we have been participating in Circul'R's two coalitions focusing on measuring circularity in companies and assessing the relevance of a circular project (or product).

### Saft and battery recycling

Saft is a member of the Global Battery Alliance, a public-private collaboration platform founded in 2017 to help establish a sustainable battery value chain by 2030. Saft batteries are designed to have a reduced environmental footprint. For nickel batteries, Saft has developed and a take-back and recycling network that recovers 75% of the weight of recovered batteries, notably at its Oskarshamn recycling site (Sweden). Today, lithium-ion batteries are processed at end-of-life using the best available techniques. The R&D project launched by Saft with Orano, Paprec, MTB Manufacturing and the CEA to develop the recycling of metals from batteries for electric vehicles (lithium and cobalt in particular) entered the pilot phase in 2023.

## RE:clic



## Circular polymers at the heart of our strategy

Increasing the circularity of our polymers is essential in the fight against plastic pollution. We offer our customers a range of RE:clic low-carbon polymers:

### RE:clic organized around 3 product lines

**RE:use**, polymers containing mechanically recycled plastic. Our subsidiary Synova is the leader on the French market, supplying high-performance recycled polymers to markets such as the automotive industry.

**RE:build**, polymers manufactured by chemical recycling, which converts non-mechanically recyclable waste into raw materials. Chemically recycled polymers can be used for food applications, for example.

We currently produce chemically recycled polymers at our Antwerp (Belgium) platform, from pyrolysis oil produced in Belgium by Indaver or in Spain by our partner Plastic Energy. Since 2020, we have been working with Plastic Energy to build a waste plastic recycling unit in Grandpuits (France). In 2022, we entered into a partnership with New Hope Energy to promote the chemical recycling of plastics in the United States.

**RE:newable**, our range of biopolymers. TotalEnergies is developing new polymers based on vegetable oils and used edible oils processed at the La Mède biorefinery in France, and tomorrow at the Grandpuits biorefinery. The TotalEnergies Corbion joint venture produces PLA (polylactic acid), a biosourced, recyclable and biocompostable bioplastic, at its 75 kt/year plant in Rayong (Thailand).

We are also working with our stakeholders to reduce the global footprint of plastics:

- we develop “ecodesign” solutions to reduce the amount of material needed for packaging and enable the recycling of plastic waste at the end of its life cycle (monomaterials);

- we support regulatory initiatives aimed at banning certain single-use plastic applications;
- we are rolling out the Operation Clean Sweep certification program, which aims to prevent the loss of pellets to the environment throughout the plastics value chain;
- we are involved in coalitions such as the Alliance to End Plastic Waste, of which we are a founding member and which brings together players in the plastics value chain, from the production of raw materials to waste collection, to work on solutions to eliminate plastic waste in the environment. ■

## LCA

WE HAVE CARRIED OUT INDEPENDENTLY-REVIEWED LIFE CYCLE ASSESSMENTS (OR LCAS) TO CONFIRM THE BENEFITS OF OUR CIRCULAR BIOPOLYMER AND CHEMICAL RECYCLING SOLUTIONS COMPARED WITH THEIR FOSSIL ALTERNATIVES

**1 M tons/year**

OUR TARGET FOR THE PRODUCTION OF CIRCULAR POLYMERS BY 2030

### HIGHLIGHTS ✓

#### Spain

Acquisition of IberResinas, which recycles over 30 kt/year of plastics from household and industrial waste.

#### Carling (France)

Construction of a production line with a capacity of 15 kt/year of high-performance recycled polypropylene for the automotive industry, containing up to 100% recycled plastics (start-up scheduled for 2024).

#### Grandpuits (France)

Announcement of the construction of a new mechanical recycling unit with a capacity of 30 kt/year of high value-added polymers containing an average of 50% recycled plastics (start-up scheduled for 2026).

# STORIES

## Sustainab'ALL



### Recycling platforms of the L7 offshore natural gas field in the Netherlands

In 2017, after 40 years of production, TotalEnergies in the Netherlands ceased operations at the L7 natural gas field, one of the country's very first offshore fields. As part of the site handover, 97% of the waste was transported to AF offshore Decom's environmental base in Vats, Norway in 2023. This represents almost 19,000 tonnes of material (the equivalent of 2 Eiffel Towers!) which will be reused for dedicated projects (CO<sub>2</sub> capture and storage, road construction...) or reconverted into raw materials (steel, copper, compost...) for marketing purposes. ■

### *Incorporation of recycled plastic in our product containers*

In France, Belgium, Luxembourg and the Netherlands, since September 2023, all our 5-liter AdBlue® cans contain 50% recycled plastic from a recycling unit run by our partner Emb-I-Pack. We are now working to develop a collection system at our French service stations, to create a complete recycling loop. In 2023, AdBlue® sales represented over 2.5 millions cans in more than 60 countries.

Since September 2023, TotalEnergies Lubrifiants' European range of premium products has been packaged in platinum-colored cans containing 50% post-consumer recycled plastic (PCR), notably produced at our Antwerp plant and part of the RE:clic range of circular polymers. The resulting cans have the same design and weight as 100% fossil bottles. Since February 2024, TotalEnergies and its partner Beericap have also been marketing bottle-caps incorporating 50% PCR for 20-liter lubricant packaging. ■

### *Developing local waste treatment processes in Africa*

In 2023, we started our first local plastics recycling facility in Nigeria, as part of a project supported by UNITAR (United Nations Institute for Training and Research) and the Nigerian authorities. The construction of 2 additional facilities is scheduled for 2024, and the possibility of collecting plastic waste from rivers is currently under study. ■

### *Pellets packaged in recycled bags*

TotalEnergies Premium wood pellets are now packaged in polyethylene bags containing 50% post-consumer recycled material. This innovative packaging consists of a central layer of 100% recycled polyethylene and 2 outer layers of virgin resins. Its properties are identical to those of fossil alternatives. The printed surface of the packaging has been reduced to improve recyclability and limit ink use. ■

# Acting for Biodiversity



## OUR COMMITMENTS

RESPECTING VOLUNTARY EXCLUSION ZONES

1

MANAGING BIODIVERSITY IN NEW PROJECTS

2

PROMOTING BIODIVERSITY

4

MANAGING BIODIVERSITY AT EXISTING SITES

3

**A**cting for biodiversity is a driver for collective action across our sites, and is the subject of an ambition and concrete objectives<sup>1</sup> in four areas (see opposite).

Our approach is to conciliate the development of energy resources with the protection of biodiversity to build a sustainable future. We apply the Mitigation Hierarchy to all our operations and projects: **Avoid, Minimize, Restore, Offset**. In concrete terms, we implement an environmental impact assessment for all our projects, including renewable energy projects, in all the countries where we operate.

### A voluntary continuous improvement approach

Our ambition is based on the Act4Nature International voluntary commitments<sup>2</sup>, made in 2018. We have also added a target of “zero net deforestation” for each of our projects on new sites in 2022. We use the United Nations definition of “forest”<sup>3</sup>, and we compensate on the basis of surface (hectares). With our Sustainab'ALL program launched in 2023, our commitment to deploy actions to support biodiversity now applies to all our operated sites.

### RESPECTING OUR VOLUNTARY EXCLUSION ZONES

- No oil or gas exploration or extraction in Unesco zones.
- No oil exploration activities in the Arctic sea ice areas.

### MANAGING BIODIVERSITY IN OUR NEW PROJECTS

- Implementation of a biodiversity action plan for each new project in areas of interest such as IUCN I to IV and Ramsar sites.
- Production of a positive impact on biodiversity, confirmed by a third-party, for all new project in priority zones of interest (IUCN zones I to II and Ramsar).

### MANAGING BIODIVERSITY AT OUR EXISTING SITES

- Implementation of a biodiversity action plan for each of our environmentally significant sites<sup>4</sup>.
- Assessing the possibility of creating areas rich in biodiversity (habitats for rare species, etc.) for sites reaching their end of life, as an option for their rehabilitation.

### PROMOTING BIODIVERSITY

- Promoting biodiversity among young people, to our employees, and sharing the biodiversity data collected from our projects.

1. More details on our axes on [our Website](#). 2. <https://www.act4nature.com/wp-content/uploads/2023/10/TotalEnergies-VA.pdf> 3. Forest: land larger than 0.5 ha with trees higher than 5 m and a canopy cover of more than 10%, or trees capable of reaching these thresholds in situ (source: Food and Agriculture Organization of the United Nations). 4. Exploration-Production subsidiaries, refineries, petrochemical sites, gas-fired power plants operated by the Company.



Biodiversity survey operation as part of environmental impact study of the Papua LNG project.

# 119

CITATIONS IN SCIENTIFIC PUBLICATIONS  
OF BIODIVERSITY DATA SHARED  
BY TOTALENERGIES ON THE GBIF  
PLATFORM SINCE 2020



## Our progress in 2023

In 2023, we have respected our voluntary exclusion zones.

We are deploying eight biodiversity action plans on our new projects and operated production sites located in the most sensitive protected areas, notably for our Tilenga project, for which we are committed to having a net gain on biodiversity. Our other net gain projects are EACOP in Uganda and Tanzania, Ratawi in Iraq, Mozambique LNG and Papua LNG.

We have also completed 26 biodiversity surveys at our existing environmentally significant sites in 2023, bringing our 2025 target to 90% completion. The associated action plans are currently being rolled out. Biodiversity assessments have also been carried out at 12 brownfield sites, 2 of which have already initiated associated action plans.

In 2023, the TotalEnergies Foundation supported 10 projects, including a dune restoration pilot project in France. Six datasets from our projects in Namibia, Papua New Guinea and Brazil were shared on the international GBIF<sup>5</sup> platform. Since 2020, data shared on this platform by the Company have been cited in 119 scientific publications.

**Zero Net Deforestation objective:** in 2023, our new projects required the deforestation of 81 ha. 59 ha of forest were replanted during the year. Offsetting actions on a solar project in the United States, corresponding to the balance, are scheduled for 2024.

## Our collaborations for nature

On these complex topics of biodiversity, we collaborate with scientific partners to ensure that our operations take biodiversity into account:

- **Uganda:** partnership with a NGO and local communities to restore forest connectivity by replanting 350 ha between two forest blocs in the Bugoma-Budongo corridor, the natural habitat of chimpanzee populations.

- **Indicators:** continuation of work based on UNEP-WCMC's Biodiversity Indicator for Sites Impacts (BISI) methodology is supported by an independent critical review committee made up of representatives of international institutions and NGOs<sup>6</sup>. We are also working with IUCN, as part of the REN2 program, on assessing the impacts of renewable energies.

- **R&D:** continued development of the environmental DNA program in partnership with the Centre des Espaces Naturels de Nouvelle-Aquitaine. ■

5. Global Biodiversity Information Facility. 6. World Conservation and Monitoring Center of the United Nations Environment Programme (UNEP-WCMC), Wildlife Conservation Society (WCS), International Union for Conservation of Nature (IUCN) and globalbalance.

## Sustainab'ALL

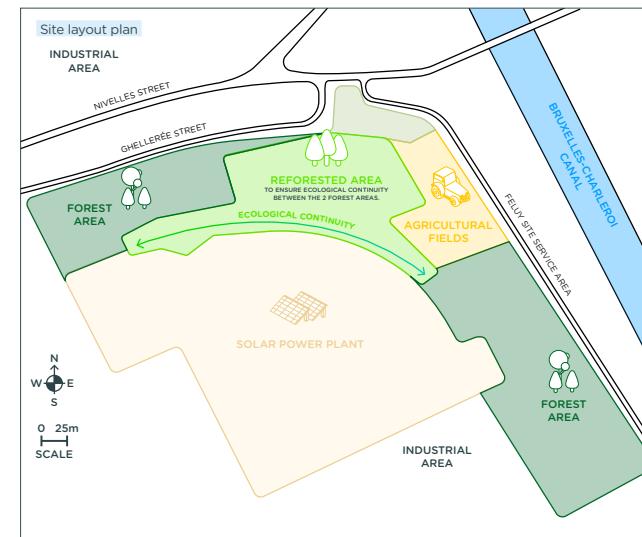


### Protecting lizards and trees in arid environments (GRP – Qatar)

The Al Kharsaah solar power plant in Qatar, with a capacity of 800 MWp, has implemented voluntary measures in favor of biodiversity. Ecological surveys were carried out prior to construction, identifying the presence of spiny-tailed lizards (Agama lizard) and Ghaf trees, both with vulnerable IUCN status, as well as other tree species. An action plan was put in place to protect them, including the relocation of over 100 lizards and the relocation of 140 trees. These actions have made it possible to preserve biodiversity while developing a sustainable energy infrastructure. ■

### Creation of an ecological corridor (RC Feluy – Belgium)

The creation of an ecological corridor between two forest areas on the Feluy site in Belgium is a voluntary action aimed at restoring connectivity between these natural spaces. By linking two isolated forest areas with a corridor of native trees and shrubs, the edge habitat for local fauna has been extended, contributing to the conservation of the Nightingale and the brown long-eared bat for which the edge is a favored hunting ground. ■



### Mobilizing our employees

- Biodiversity awareness raising of **2,722 employees** during Sustainab'ALL day and **mobilization of 3,809 employees** who took part in actions to support biodiversity as part of the **Action!** program.
- Creation of an in-house '**One Biodiversity**' platform bringing together all the tools (guides, awareness-raising materials, decision-making tools, training courses, sharing of best practices) to enhance the Biodiversity Action Plans at our sites.
- Launch of **The Biodiversity Collage facilitator's network** to deploy this awareness raising tool throughout the Company (60 employees trained in 2023).
- TotalEnergies Marketing France has set up a **Biodiversity Ambassador Network** made of 200 volunteer employees. ■



# Having a Positive Impact for Stakeholders

- 84 \_\_\_ Upholding Human Rights
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- 87 \_\_\_ Engaging with Our Stakeholders
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- 90 \_\_\_ *Focus. Mozambique*
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- 95 \_\_\_ Sharing the Economic Value We Create

# Upholding Human Rights

## OUR SALIENT RISKS



## OUR COMMITMENTS

### Our values and Code of Conduct

#### Compliance with international standards and principles:

- Universal Declaration of Human Rights
- United Nations Guiding Principles on Business and Human Rights (UNGPs)
- Fundamental Conventions of the ILO
- Voluntary Principles on Security and Human Rights (VPSHR)
- The OECD Guidelines for Multinational Enterprises

Respect for each other is a core value at TotalEnergies, at the heart of our collective ethics and our Code of Conduct. The Code of Conduct applies to all our employees, as well as to our suppliers and contractors.

Respect for each other means respect for human rights, which are non-negotiable in our operations around the world. It is also a collective and individual requirement.

Our salient risks of impacting human rights break down into three categories:

#### Human rights in the workplace

We take action against all forms of discrimination, forced labor and child labor; ensure fair, satisfactory and safe working conditions (see p.60 and following) and require the same of our suppliers in their operations (see p. 94).

In the field, we emphasize training to explain, anticipate and prevent human rights risks. In 2023, more than 3,500 employees participated in classroom training and since 2019, more than 69,000 have received online training.

We are also engaged in conducting external audits of our affiliates using the consulting firm GoodCorporation. In 2023, 4 assessments were conducted (Vietnam, Morocco, South Africa and Congo), and an audit plan targeting 300 suppliers was launched, with the aim of reaching 1,300 audited suppliers by the end of 2025. From 2016 to date, 740 potentially high-risk suppliers in terms of human

rights have been audited, in 86 countries, involving 100 affiliates and covering 230,000 people. 385 of these required the implementation of corrective measures.

#### Human rights and local communities

In our project development process, we conduct specific due diligence as soon as studies begin to identify the potential negative impacts of our activities on local communities, as well as appropriate remediation plans, in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGPs). We pay particular attention to salient risks concerning access to land, the right to health and an adequate standard of living. We are setting up mechanisms to manage grievances in our affiliates.

#### Human rights and safety

When security contractors or government forces in charge of protecting our employees and installations have to intervene, we make sure they have been vetted individually and received adequate training. In 2023, over 900 people have been trained in this way. We perform analyses each year to assess the security risks at our sites and publish an annual VPSHR report<sup>1</sup>.

1. TotalEnergies VPSHR report 2022.

OVER  
**900**  
PEOPLE TRAINED  
IN HUMAN RIGHTS  
AND SECURITY IN 2023

MORE THAN  
**170**  
REPORTS LOGGED BY THE COMPANY'S  
NETWORK OF ETHICS OFFICERS IN 2023

GRIEVANCE MANAGEMENT IN OUR AFFILIATES

**638**  
GRIEVANCES LOGGED  
IN 2023

RESOLUTION RATE OF  
**80%**

## We listen to whistleblowers

The Chairwoman of the Company's Ethics Committee reports directly to the Chairman and CEO and oversees a network of more than 100 Ethics Officers. The Ethics Committee maintains a system for reporting situations or behavior that

violate the Code of Conduct, including a grievance reporting mechanism (via the address [ethics@totalenergies.com](mailto:ethics@totalenergies.com)) accessible to all employees internally and to external stakeholders. In 2023, more than 170 reports were logged and processed. ■

### FAITS MARQUANTS ✓

#### Use of external experts

When the context of a project is complex, we seek the advice of independent third parties. In 2022, we entrusted Jean-Christophe Rufin, a recognized expert in the field of humanitarian action and human rights, with an independent mission to assess the humanitarian situation in the province of Cabo Delgado, where the Mozambique LNG project is located. The report was published on May 23, 2023. It highlights the execution quality and the positive impact of the actions undertaken by Mozambique LNG on the living conditions of local population and makes recommendations for improving Mozambique LNG's actions in the field (see *Mozambique Focus page*).

In January 2024, Lionel Zinsou, recognized for his expertise in African economic development, was entrusted with a mission to assess the land acquisition program carried out in Uganda and Tanzania as part of the Tilenga and EACOP projects.

#### FPIC agreements in Tanzania

In Tanzania, three free, prior and informed consent (FPIC) agreements have been signed, with the community of Akie

in July 2022<sup>2</sup>, the community of Taturu<sup>3</sup> in March 2023 and the community of Barabaig in January 2024<sup>4</sup>. These agreements cover their sacred sites and cultural heritage affected by land acquisition under the EACOP project<sup>5</sup>.

#### Third edition of our Human Rights Briefing Paper

We promote transparency in our approach and actions in terms of respecting human rights, in our own activities and our contractors' activities. In this regard, we have published in January 2024 the third edition of our Human Rights Briefing Paper, covering the period 2018 to 2023. It includes the Company's approach to human rights, describing how we implement international standards and conventions in this respect. We also highlight our governance to address human rights matters, as well as our due diligence process across our operations. Concrete examples and facts illustrating our approach are also provided, such as the Grandpuits refinery conversion project in France, which is part of a just transition approach, stakeholder engagement in Papua New Guinea or our approach with respect to human rights defenders in Uganda.

2. Free prior and informed consent agreement signed with the Akie Community – EACOP. 3. Free prior and informed consent agreement signed with the Taturu community – EACOP. 4. Free prior and informed consent agreement signed with the Barabaig community of Gorimba Village, Hanang District – EACOP. 5. East African Crude Oil Pipeline, whose shareholders are TotalEnergies (62%), UNOC (15%), TPDC (15%) and CNOOC (8%).

# Promoting Fiscal Transparency and Fighting Corruption

ZERO TOLERANCE TOWARDS CORRUPTION

IN 2023, MORE THAN

**17,000**

EMPLOYEES HAVE TAKEN THE NEW ONLINE ANTI-CORRUPTION TRAINING COURSE

**15** ANTI-CORRUPTION ASSESSMENTS CARRIED OUT IN AFFILIATES IN 2023

ABOUT

**200** INCIDENTS RELATING TO FRAUD, CORRUPTION OR INFLUENCE PEDDLING WERE IDENTIFIED IN 2023



We work with governments to promote fiscal transparency and fight corruption, helping to create the right environment for economic development.

## Promoting fiscal transparency

TotalEnergies is a member of the Extractive Industries Transparency Initiative (EITI) and made its tax policy public in 2014. This policy is approved by the Board of Directors and published in the Company's Universal Registration Document. We also publicly endorse the Responsible Tax Principles developed by the B Team, a non-profit organization of business leaders and civil society representatives, which aims to promote sustainable economic and social development.

The Company published in April 2023 its second fiscal transparency report, providing additional information on the taxes paid in its main host countries in 2021 and 2022, in order to give its stakeholders a fuller and more pertinent view of its tax situation.

## Fighting corruption

TotalEnergies is exposed to corruption risks owing to its presence in certain countries that have a high perceived level of corruption according to the index drawn up by Transparency International. We apply a principle of zero tolerance for corruption among our employees and suppliers. We promote the value of "Respect for Each Other", which is part of our Code of Conduct, and advocate a "SpeakUp!" culture. In 2023, our annual "Business Ethics Day" event was dedicated to the handling of ethics alerts. Our employees and third parties are

encouraged to report any situation that they believe to be in breach of our Code of Conduct.

To take action in all areas of its value chain, TotalEnergies has made preventing and fighting the risk of conflicts of interest and corruption part of its Responsible Purchasing Program (see p. 94). A tool was launched at the end of 2023 to facilitate systematic checks during the supplier evaluation process. ■

## HIGHLIGHTS ✓

### Anti-corruption: our actions in 2023

- In 2023, more than 17,000 employees have taken the new online training course, designed to adapt to their greater maturity on these subjects. In addition, in 2023, webinars designed to train the populations most exposed to the risk of corruption were launched. They involve about 18,000 employees.
- 15 assessments were carried out in our affiliates in 2023.
- About 200 incidents relating to fraud (excluding attempted fraud), corruption or influence peddling were recorded in 2023, and resulted, when they concerned an employee, in nearly 130 disciplinary actions including dismissal.
- Each of the Company's business segments reviewed its risk mapping in 2023. A summary was presented to the TotalEnergies Risk Management Committee in December 2023.

# Engaging with Our Stakeholders

## MAPPING OF OUR MAIN STAKEHOLDERS



Our activities have a significant effect on society, and directly or indirectly concern a very large number of stakeholders. With growing expectations of businesses, legitimate questions are raised about our strategy, how we implement it and the impact it has.

We firmly believe that we need dialogue, and strive to provide honest and useful answers to the questions we are asked about what we do. We take part in existing bodies that facilitate this dialogue and we create them when necessary to anticipate expectations, particularly those of our local stakeholders.

On the ground, all over the world, we work hand in hand with local NGOs. These relationships, most of which receive little media coverage, enable us to identify and respond to priority needs, and contribute to taking a responsible approach in our operations.

TotalEnergies is also a member of a number of coalitions and think-tanks committed to advancing corporate sustainability, such as the WBSCD, the Global Compact, CSR Europe, ORSE, Comité 21<sup>1</sup> and EpE (Entreprises pour l'Environnement).

From the most local to the most global level, dialogue helps to identify and analyze the main risks and impacts relating

1. TotalEnergies has been a member of the World Business Council for Sustainable Development since 2014, the United Nations Global Compact since 2002, the Corporate Sustainability and Responsibility network since 2016, the Observatoire de la Responsabilité Sociétale des Entreprises since 2000 and of the Comité 21 since 1995. 2. Independent Advisory Panel - Papua LNG.

to our activities, as well as giving a better understanding of the complex challenges involved and the sometimes contradictory expectations we have to deal with, and to identifying opportunities for collaboration.

Discussion between local and central teams, as well as regular monitoring and tracking of social trends, provides us with a global understanding of the challenges at stake, to feed the Company's strategy.

We organize informal discussion channels in order to dialogue with all stakeholders, including the most critical, in a context of growing polarization of opinion. As a result, we pay particular attention to any controversies raised, which usually reflect unmet expectations, whether or not it is within our power to provide a response.

## HIGHLIGHTS ✓

### Papua New Guinea - Independent panel

The advisory panel of experts set up in 2022 in Papua New Guinea met 5 times in 2023 and had 7 experts at the end of 2023. 26 recommendations on the conduct of the project with regard to local communities and biodiversity were formulated and published<sup>2</sup>, 20 of which were followed by concrete actions, either completed or in progress.

### **The main controversies that we faced in 2023 related to:**

- our strategy to get to Net Zero by 2050, together with society, the pace and the reality of our transition;
- our climate impact, and particularly that of new oil and gas production projects;
- the role of Nature-Based Solutions projects in our Net Zero strategy;
- LNG's role in ensuring security of supply in Europe, and in France in particular;
- human rights and the impact of our activities on local communities, particularly those concerned in Uganda and Tanzania by the Tilenga-EACOP projects; in Mozambique;
- our activities in relation with Russia;
- the impact of our operations on the environment and health;
- the Company's rate of taxation, its profits and dividends paid, and the amount redistributed to its employees.

### **Social Dialogue: an essential commitment to the success of our transition**

TotalEnergies encourages and maintains regular dialogue with employees and their representatives. In countries where employee representation is not mandatory under local legislation, the creation of a body to foster dialogue is proposed: in 2023, a total of 92% of Company employees had union representation or employee representatives.

In Europe, TotalEnergies European Works Council met 24 times. The proposed total or partial sale of the service station network in Germany, the Netherlands, Belgium and Luxembourg to the company Alimentation Couche-Tard was the subject of an information-consultation procedure involving the Committee in parallel with the social procedures in each of the countries concerned.

### **Investors: ongoing demanding and fruitful dialogue**

We attach particular importance to dialogue with all our shareholders, with whom the members of the Executive Committee, the Lead Independent Director and the Investor Relations team maintain an ongoing dialogue about the Company's strategy and sustainability policy. The many interactions with our individual and institutional shareholders, as well as investor coalitions such as CA100+ or the IIGCC helped provide content for this report and its evolution between 2023 and 2024. The Chairman & CEO and the Lead Independent Director also met twice in 2023 with representatives of the shareholder coalition having submitted a resolution to our Annual General Meeting 2023.

### **Transparency as a principle of action**

We believe that transparency is essential if we are to build relationships of trust with our stakeholders. We report on our performance through the various commonly used extra-financial disclosure frameworks. For example, we refer to the standards of the GRI (Global Reporting Initiative) since 2003 and the SASB (Sustainability Accounting Standards Board) since 2020. We also include in our reporting the "Core" metrics recommended by the World Economic Forum. ■

### **HIGHLIGHTS ✓**

#### **Civil society and business: publication of the study “Étape 2030 de la transition écologique”**

TotalEnergies is a member of the French association Entreprises pour l'Environnement (EpE), which brings together more than 60 large companies; Patrick Pouyanné has been its Chairman since June 2022. Following on from the ZEN 2050<sup>3</sup> study of 2019, the association published on December 12, 2023 the results of the ETE 2030 study<sup>4</sup>. Based on the work of the IPCC, IPBES and sociologists, this study offers a global vision of the actions that need to have been taken by 2030 to put France on a credible ecological transition trajectory. On the occasion of its publication, the contributing companies came to share their visions, proposals and commitments for the ecological transition. TotalEnergies is involved in 7 collective initiatives, including one on sobriety.

#### **France: exchanges with local players**

The “Territoires des énergies et au-delà” regional think tanks, convened 37 times in 2023 by the Direction France of TotalEnergies, brought together 500 local stakeholders, members of the business world, civil society (associations, academia, NGOs), public authorities and elected representatives. Their aim was to discuss the challenges of energy transition and economic development. Recommendations and courses of action were published by region<sup>5</sup> and shared with our stakeholders. Partnership agreements were concluded in 2023 with the Régions de France association and the Association des Communes et Collectivités d'Outre-mer, as well as a declaration of cooperation with the Grand Est region. We are also continuing our work with the FNSEA<sup>6</sup>.

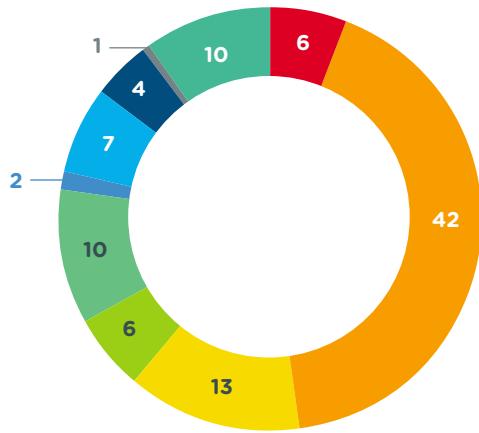
3. Net Zero Emission Study 2050 ([epe-asso.org](http://epe-asso.org)) 4. Étape 2030 de la Transition Écologique study ([epe-asso.org](http://epe-asso.org)) 5. Territoires: des énergies et au-delà ! | TotalEnergies direction France.

6. French umbrella organization representing local agricultural unions and regional federations.

# Supporting Our Host Communities

## SOCIO-ECONOMIC DEVELOPMENT INITIATIVES BY TOPIC

In %



- Road safety
- Youth inclusion and education
- Cultural dialogue and heritage
- Climate, coastal areas and oceans
- Support for local economic development
- Energy access
- Environment, other
- Health access
- Public infrastructure and equipment
- Good neighbor and solidarity initiatives

The nature of our operations involves close interaction with local communities in our host countries. Our vision of shared prosperity is based on three principles: dialogue and engagement with all our host communities, assessing and reducing the impact of our operations, and contributing to local social and economic development that meets the needs of the community.

### Contributing to local socio-economic development

Long-term operations in a host territory means developing profitable, sustainable projects that create jobs and develop skills locally. TotalEnergies is committed to prioritizing local jobs and subcontracting locally wherever possible, in accordance with operational constraints. In addition to jobs and using local suppliers for projects, we support education and getting young people into employment, protecting cultural heritage, access to water, health and road safety, which all contribute to reduce inequality. In 2023, more than 1,500 initiatives were supported in these areas.

### Building ties with host communities

Another way of building these ties is by giving our employees the opportunity to get involved in causes close to where they work. The Action! program enables all employees to donate up to 3 workdays a year to local causes. Mentoring a young person or taking care of natural spaces are opportunities to play a part, individually or with others, in achieving

the Company's aim of driving positive change locally. In 2023, 10,000 employees took part in more than 14,000 citizenship initiatives worldwide as part of this program. ■

### HIGHLIGHTS ✓

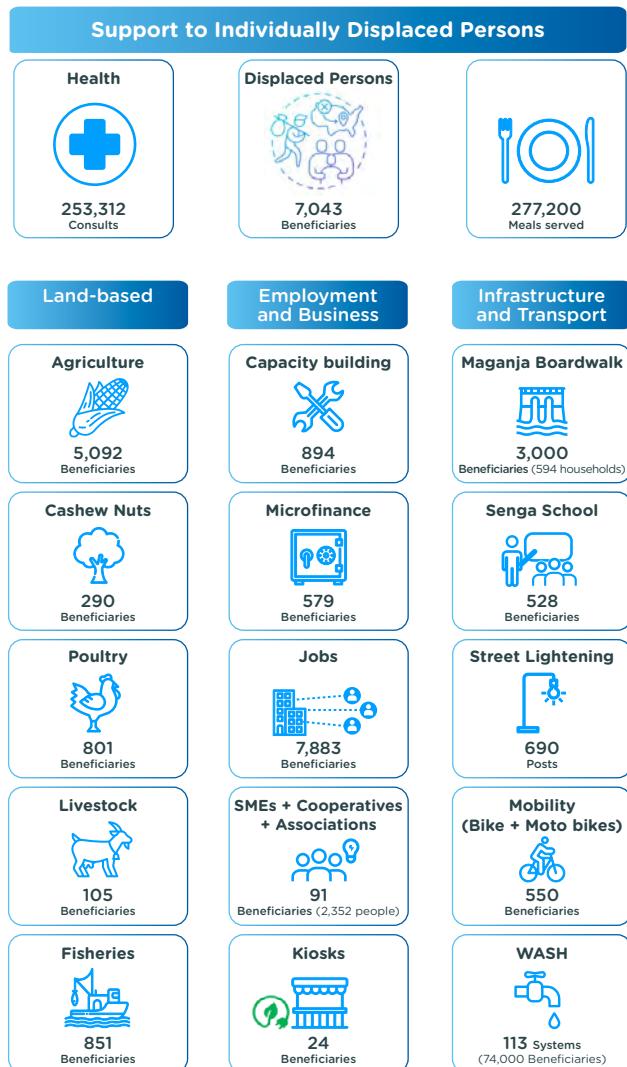
#### The EACOP project

In Uganda and Tanzania, TotalEnergies has been contributing to economic development since 2022 through the EACOP project, by purchasing goods and services from local companies (\$45 million cumulated in Uganda and \$172 million in Tanzania), by upgrading the skills of local suppliers or by creating jobs. By the end of 2023, the project employed over 1,200 Ugandans and 3,200 Tanzanians, and 92% of the hours worked since the start of the project correspond to jobs for nationals. Since 2022, the project has provided more than 180,000 hours of training to 21,000 people. Also in Uganda and Tanzania, the development of "business centers" has been launched to encourage the participation of local SMEs.

#### Support for SMEs in France

Our actions in favor of the local economic fabric are illustrated in France by our help to create and support jobs through interest-free, unsecured loans to French SMEs. In 2023, 130 SMEs benefited from loans worth €5 million, helping to create or support nearly 3,400 jobs.

## FOCUS MOZAMBIQUE



The Mozambique LNG Project has been under Force Majeure since 2021. Nevertheless, activities continued in Cabo Delgado province, with priority given to emergency initiatives including humanitarian support to displaced persons, with shelter, food and access to health services. Societal activities were able to resume as the security situation gradually improved.

As the livelihoods of communities have been significantly disrupted by this security crisis, Mozambique LNG engaged in supporting various socio-economic development projects providing sustainable incomes for local families. These include micro-credit for small and medium-sized enterprises. 7,800 jobs have been created to date and more than 2,300 businesses have benefited from financial and technical support, which the Mozambique LNG project continues to monitor. In 2023, the project supported the implementation of 49 socio-economic development initiatives, in the fields of agriculture and food security, infrastructure, and support for entrepreneurship, among others, with a full value chain approach to key sectors (see opposite left).

Published in May 2023, Jean-Christophe Rufin's independent report on the humanitarian situation in Cabo Delgado (see p. 85) highlighted the positive impact of the actions implemented on the living conditions of local population. It made a number of recommendations, including the need for a dedicated structure to promote an ambitious and sustainable strategy of local development covering the whole province. The decision was taken by the project to establish the Mozambique LNG Foundation, which will support interventions throughout Cabo Delgado province from 2024 onwards.

### Agricultural development

Mozambique LNG supports the development of the agricultural sector through the supply of agricultural inputs, technical assistance and market access. 6 projects are underway, benefiting 5,000 beneficiaries, in the production of grains, nuts, seeds, beans and flowers. Over 200 tons of agricultural products were harvested locally in 2023. In addition to contributing to food security, these initiatives serve to restore people's livelihoods. The purchase of food products for the camps set up under the project has generated over \$1.5 million in direct income for local communities. 23 communities in the districts of Palma and Mocimba da Praia have supplied local products, and consumption in the Mozambique LNG camps is 80% local. ■

# Making a Commitment to Young People

VIA ROAD SAFETY EDUCATION PROGRAM



BY THE END OF 2023

# 630,000

YOUTH TRAINED, SINCE  
THE START OF THE PROGRAM



## 3.6 Road traffic injuries

By 2030, halve the number of global deaths and injuries from road traffic accidents

**S**ince there is no sustainable development that would leave young people by the wayside, TotalEnergies takes action to give them the means to take charge of their own futures, focusing on the most vulnerable.

### Helping young people to find work

TotalEnergies takes an active approach as an employer: in 2023, we renewed our commitment to welcoming 2,000 work-study students per year into our teams, including 10% work-study students from priority neighborhoods by 2025. At the end of 2023, more than 2,400 work-study students were working within the Company throughout France, including 6.4% from priority neighborhoods.

The Company also takes action through its corporate foundation, and notably funds L'Industreet, a campus it launched at the end of 2020 in Stains, Seine-Saint-Denis. L'Industreet provides free professional training for young people in industrial sectors struggling to recruit. By the end of 2023, 250 18- to 30-year-olds received training and 116 obtained their qualification.

The Corporate Foundation also contributed to the opening of a further 10 Production Schools in 2023, bringing the total to 67, as part of a €60 million partnership over 10 years.

### Making the roads safer, educating about road safety

We are committed to road safety for our operations and our customers, to make the roads safer for all users, in particular

the youngest users, for whom this is the leading cause of death. By sharing our expertise in schools, for example, we are contributing to support reaching SDG 3.6. This is the aim of our VIA Road Safety Education Program. In 2023, the program trained nearly 250,000 school-children in 43 countries, including over 150,000 in Africa and 40,000 in India. The program rollout is supported by employees of the Company's affiliates. ■

### HIGHLIGHTS ✓

#### "Helmet4Life" initiative

In May 2023, TotalEnergies launched the "Helmet4Life" initiative. Supported by its local subsidiaries, it aims to provide 100,000 motorcycle helmets meeting the strictest safety standards to two-wheeler riders in 40 countries in Africa, South America and Asia in 2023 and 2024. It is accompanied by a road safety awareness campaign for motorized two-wheelers. The operation is part of the "Global Safe & Affordable Helmet" campaign spearheaded by Jean Todt, the United Nations Secretary-General's Special Envoy for Road Safety. By 2023, 37,000 helmets had been distributed in 22 countries.

#### Our Corporate Foundation

Created in 1992, the TotalEnergies Corporate Foundation now takes action in four priority areas: inclusion and education; road safety; climate, coastal areas and oceans; cultural dialogue and heritage. In 2023, it provided €54 million of support to its non-profit partners.

# Accessible and Affordable Energy for All

## UNIVERSAL ACCESS TO CLEAN ENERGY

**7.7** MILLION BENEFICIARIES  
OF OUR RENEWABLE  
ELECTRICITY PRODUCTION  
IN EMERGING COUNTRIES

**379,000**

AWANGO LAMPS AND SOLAR KITS  
SOLD IN 2023 IN 27 COUNTRIES



7. By 2030, ensure universal access to affordable, reliable and modern energy services

**U**niversal access to clean energy is one of the main aims of the United Nations Sustainable Development Goals (SDG 7). TotalEnergies' mission is to deliver energy that is more available, more affordable, more sustainable and accessible to the greatest number of people.

The energy transition relies in part on using more electricity, to which we have devoted 30% of our investments in 2023, reaching in particular 22 GW of gross installed renewable electricity generation capacity, including nearly 6 GW in India. We estimate that around a third of our development will be in emerging countries, as described in our SDG7 Energy Compact<sup>1</sup> which will enable around 40 million people to benefit from decent or more reliable access to energy for the first time by 2030.

Access to clean energy, particularly for cooking, is another essential prerequisite for economic and social development in emerging countries (see p. 93).

In OECD countries, the focus on defending buying power and combating energy insecurity remained strong in 2023. In France, we took measures to help our customers. In February, we unilaterally decided to cap fuel prices at €1.99/l at our 3,400 French service stations. In September, we announced that this cap would be extended beyond 2023, as long as prices remain high. TotalEnergies distributed more than €100 million through the 'Bonus Conso' operation to encourage energy sobriety in France during the winter of 2022-2023. 50% of our customers reduced their electricity

consumption by around 15% during this period, i.e. 380 GWh (the consumption of 860,000 inhabitants).

Also in France, we have decided to reopen 20 rural stations, to maintain our network and provide local service. Finally, we are developing electric charging stations in France and Europe, with over 19,000 installed in 2023, including almost 1,300 fast or ultra-fast charging stations (> 50 kW). ■

## HIGHLIGHTS ✓

### South Africa - Solar Power Plant

In 2023, we launched the construction of a 216 MW solar plant in South Africa, combined with a battery storage system to manage the intermittency of solar production. Located in the Northern Cape province, the site will supply renewable electricity to the South African national grid for 20 years. In particular, it will supply 75 MW to the national utility Eskom on a continuous basis from 5 am to 9.30 pm, i.e. for longer than the available sunshine. Expected to be operational in 2025, the project is part of a national program to alleviate the country's electricity supply constraints.

<sup>1</sup> www.un.org

## FOCUS CLEAN COOKING

# 2.3

BILLION PEOPLE WORLDWIDE  
DO NOT HAVE ACCESS TO CLEAN ENERGY,  
NOTABLY FOR COOKING

IN 2023

# 50M

BENEFICIARIES  
OF OUR BOTTLED  
LPG SALES IN  
AFRICA AND ASIA

Access to clean energy, particularly for cooking, is a prerequisite for economic and social development in emerging countries. Today, 2.3 billion people in the world do not have access to it<sup>1</sup>.

By substituting Liquefied Petroleum Gas (a fossil fuel) in the form of bottled gas for wood and charcoal, "clean cooking" has a positive effect on people's health, the environment and the economy<sup>2</sup>. LPG is more efficient for cooking and emits less CO<sub>2</sub> than charcoal. It improves air quality, reducing the risk of respiratory complications and cardiovascular disease. It also reduces some of the negative impacts of traditional biomass use, notably on women (time saved facilitating access to education, employment or entrepreneurship, and financial independence) and on the environment (deforestation).

In 2023, TotalEnergies distributed 910 kt of bottled LPG in Africa and Asia, serving 13 million households and around 50 million people.

### An enhanced ambition

We are stepping up our efforts in Africa and India, and have enhanced our ambition to serve 100 million people by 2030. To achieve this, TotalEnergies plans to invest \$400 million in LPG for "clean cooking", primarily in cylinders but also in storage and filling facilities.

In Africa, this new ambition includes opening new LPG activities in Mozambique and Namibia, and continuing the

recent development in Rwanda and Tanzania, where LPG activities were launched in 2023. We also intend to significantly increase our growth in Kenya, Cameroon, South Africa, Ivory Coast and Senegal. In Asia, it concerns India. ■



A woman in Kenya uses bottled LPG to cook, replacing charcoal.

1. www.iea.org: "Vision for clean cooking access for all". 2. www.cleancooking.org

# Working Alongside Our Suppliers

SUPPLIER AUDITS

SINCE 2016

**740**

SUPPLIERS  
AUDITED

CONCERNING

**230 000**

WORKERS

CORRECTIVE ACTION  
PLANS AUDITED FOR

**171**

OF THEM

IMPROVEMENT OF  
WORKING CONDITIONS OF

**60 000**

WORKERS



TotalEnergies works with over 100,000 suppliers of goods and services worldwide, for a total spend of around \$30 billion in 2023. We can play a major role in encouraging our suppliers to improve their sustainability.

## Priority 1 • Training our buyers

By the end of 2023, 61% of TotalEnergies' buyers had been trained in sustainable procurement. Additional awareness-raising actions are regularly carried out through thematic webinars.

## Priority 2 • Raising awareness and mobilizing suppliers

The Company regularly raises awareness among its suppliers regarding sustainable development: it engages its main suppliers through a platform, through supplier days such as those organised in March 2023 in China and in July in Nigeria, and also through dedicated training sessions, such as the one organized in May 2023 in Vietnam.

## Priority 3 • Integration of our sustainability requirements into our purchasing process

On the basis of its Fundamental Principles, updated in 2022 to precise climate and sustainability matters, and shared with our suppliers, the Company ensures that societal, environmental and climate criteria are taken into account during tender evaluation.

## Priority 4 • Evaluating our suppliers

The Company has set itself the target of assessing its 1,300

priority suppliers on all aspects of sustainable development by the end of 2025. In 2023, 37% of priority suppliers have been assessed through documentary and on-site audits.

## Priority 5 • Support for continuous improvement of suppliers

The follow-up of audits and the implementation of action plans have improved working conditions for over 60,000 workers. In particular, corrective measures have ensured that workers' rights to weekly leave, overtime pay and direct access to drinking water in the workplace are respected. For example, after audits revealed that construction suppliers were not granting their employees a weekly day off, TotalEnergies teams worked with these suppliers to ensure that rest periods were respected. Verification audits in 2023 demonstrated the success of this approach, and rest time is now respected by these suppliers. ■

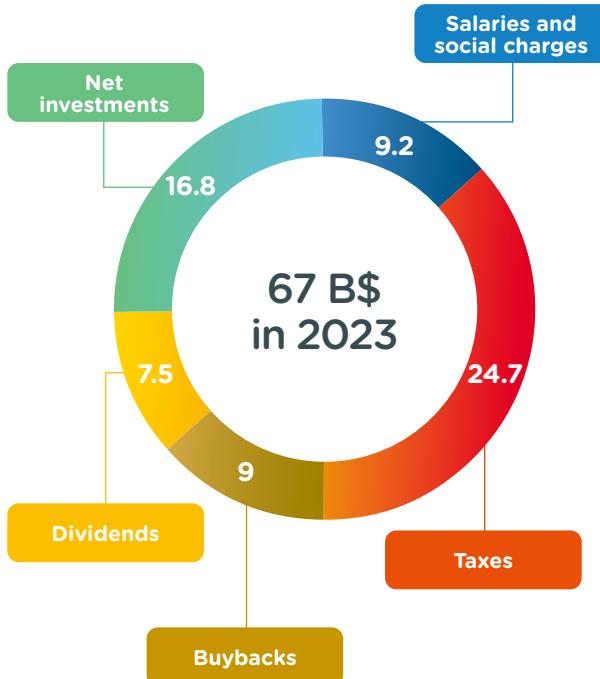
## HIGHLIGHTS ✓

### Workers' Voice survey on EACOP and Tilenga projects

In order to test an approach that complements existing audit and grievance mechanisms, TotalEnergies has set up a "workers' voice survey" pilot in 2023 at two of its major industrial projects in Uganda and Tanzania: Tilenga and EACOP. The aim of this pilot is to directly survey workers from tier 1 suppliers and beyond, via their mobile phones, in order to gather information on their working conditions.

# Sharing the Economic Value We Create

SHARING TOTALENERGIES'S  
VALUE CREATION IN 2023



TotalEnergies creates economic and financial value in the 120 countries in which it operates, which benefits governments, economic partners including suppliers, its employees and its shareholders.

## Sharing value with governments

TotalEnergies pays its share of taxes, making a substantial contribution to the economic development of its host countries. In 2023, the amount of income tax and production taxes paid by the Company across all operations, came to just over \$24.7 billion. The average tax rate was 38.2% in 2023. Payments made by the Company's extracting entities to governments or territories in which we operate amounted to \$28.3 billion in 2023 (mainly taxes, duties and production rights).

At the other end of the value chain, product retail, the Company collect excise taxes for government from consumers of energy products. In 2023, it collected \$18.2 billion in excise taxes on petroleum products.

## Sharing with our 100,000 employees worldwide

Wages and payroll taxes amounted to \$9.2 billion in 2023, including the payment by the Company of an exceptional bonus to all employees, corresponding to 0.75 months' pay, capped for high salaries. At the Socle Social Commun level in France, representing a total of 14,000 employees, the agreement also provided a 5% pay rise to reflect inflation of 3.6% over the year. In addition, there was a 5% increase in managers' variable pay.

TotalEnergies also encourages employee shareholding: in 2023, more than 52,600 employees and former employees from 94 countries subscribed to a capital increase in the amount of €353.8 million; more than 10,000 employees also received performance shares. Finally, more than 65% of the Company employees are shareholders in TotalEnergies, and their stake in the Company's capital stood close to 8% at December 31, 2023, up 50% over the last 10 years. As such, in 2023 they received around €524 million in dividends.

## An attractive shareholder returns policy

TotalEnergies has not reduced its dividend since 1982. The Company's financial strength enables it to successfully implement its transition strategy and offer shareholders an attractive returns policy.

Over the past 10 years, the average annual gross dividend yield has been 5.9%. In 2023, in addition to the 7.1% increase in quarterly interim dividends, a \$9 billion share buyback program has been implemented. Payout to shareholders represented therefore 46% of cash flow in 2023. ■



# Performance Indicators

- 97  Verification by an Independent Third Party
- 98  Energy Transition
- 99  Taxonomy
- 100  Climate: Scope 1+2
- 101  Climate: Scope 3 and Intensity Indicators
- 102  Health and Safety
- 103  Employees
- 104  Environment
- 105  Positive Impact for Stakeholders
- 106  The Carbon Capture and Storage Projects
- 107  Glossary
- 110  Value Chain

## VERIFICATION BY AN INDEPENDENT THIRD PARTY

The extra-financial Performance Indicators presented below are taken from the Extra-Financial Performance Declaration for which EY & Associés, in its quality as an independent third-party accredited by the COFRAC, has issued a reasoned opinion expressing a moderate assurance conclusion. In addition, TotalEnergies asked PricewaterhouseCoopers Audit to carry out a review in order to obtain a reasonable level of assurance on the climate indicators marked with an asterisk.

The report of the independent third party organization on the verification of the consolidated extra-financial performance statement and the reasonable assurance report by PricewaterhouseCoopers Audit are available in section 5.12 of the Company's Universal Registration Document, available at: <https://totalenergies.com>

### Climate

- Number of sites with an auditable energy management system.
- Direct GHG emissions at operated sites (Scope 1)\*.
- Direct GHG emissions based on equity share (Scope 1).
- Indirect GHG emissions from energy use at operated sites (Scope 2)\*.
- Indirect GHG emissions from energy use as equity share (Scope 2).
- GHG emissions (Scope 1+2) from operated Oil & Gas facilities\*.
- Other indirect GHG emissions related to the use by customers of energy products (Scope 3 category 11).
- Other indirect GHG emissions related to the use by customers of petroleum products.
- Flared gas (Upstream Oil & Gas activities, operated Scope).
- Routine flaring.
- Estimates of enabled emissions reductions by TotalEnergies' LNG sales.
- Lifecycle carbon intensity of energy products sold.
- Intensity of GHG emissions (Scope 1+2) of operated Upstream Oil & Gas activities.
- Methane emissions from Company operated activities\*.
- Methane emissions based on equity share.
- Intensity of methane emissions from operated Oil & Gas facilities (Upstream).
- Net primary energy consumption (operated Scope).
- Global energy efficiency indicator (GEEI).

### Health Safety

- Loss of primary containment Tier 1 and Tier 2.
- Millions of hours worked.
- Number of occupational fatalities.
- Number of occupational fatalities per hundred millions hours worked.
- TRIR (number of recorded injuries per million hours worked).
- LTIR (number of lost time injuries per million hours worked).
- SR (number of days lost due to accidents at work per million hours worked).
- Number of severe road accidents.
- Number of occupational illnesses recorded in the year (in accordance with local regulations).
- Percentage of employees with specific occupational risks benefiting from regular medical monitoring.

### Social

- Total number of employees.
- Total number of employees hired on permanent contracts.
- Total number of departures per category.
- Percentage of the Company's entities including HSE criteria in the variable compensation.
- Average number of training days/year per employee (onsite training).
- Average number of training days/year per employee (remote training).
- Average number of training days/year per employee, per segment, per geographical areas and per type of training.
- Average training cost per employee.

- Percentage of women among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives.
- Percentage of employees of non-French nationality, among permanent contract recruitment, among management recruitment, among total employees, among managers, among senior executives.
- Percentage of companies offering the option of regular remote working.
- Percentage of employees choosing remote working when given the option.
- Percentage of companies offering voluntary parttime work.
- Absences for medical reasons.
- Percentage of companies with labor union representation and/or employee representation.
- Percentage of employees covered by a collective bargaining agreement.
- Number of active agreements signed with employee representatives worldwide and in France.
- Percentage of employees that received direct remuneration that is at least equal to the living wage in the country or region in which they work.

### Human Rights

- Percentage of subsidiaries in the One MAESTRO rollout scope with an operational activity which have a grievance mechanism in place.

### Environment

- Number of operated sites important for the environment ISO 14001 certified.
- Number of sites operated by the Company ISO 14001 certified.
- Number of sites whose risk analysis identified at least one risk of major accidental pollution to surface water.
- Proportion of those sites with an operational oil spill contingency plan.
- Proportion of those sites that have performed an oil spill response exercise or whose exercise was prevented following a decision by the authorities.
- Accidental liquid hydrocarbon spills of a volume of more than one barrel that affected the environment, excluding sabotage (number and total volume of spills, total volume recovered).
- SO<sub>2</sub> emissions.
- NO<sub>x</sub> emissions.
- NMVOC emissions.
- Hydrocarbon content of offshore water discharges.
- Hydrocarbon content of onshore water discharges.
- Percentage of sites that meet the target for the quality of offshore discharges.
- Percentage of sites that meet the target for the quality of onshore discharges.
- Fresh water withdrawals excluding cooling water.
- Fresh water consumption.
- Fresh water withdrawal in water stress area.
- Quantity of non-hazardous and hazardous waste.
- Quantity of non-hazardous and hazardous waste valorized.
- Percentage of waste processed per treatment process (valorization, landfill, other).

\* Indicators reviewed with reasonable level of assurance.

Energy Transition	Unit	2015	2019	2020	2021	2022	2023
<b>Energy mix (sales)</b>							
Petroleum products <sup>1</sup>	%	65	53	47*	44*	41	43
Gas <sup>2</sup>	%	33	40	45*	48*	50	47
Low-carbon energies <sup>3</sup>	%	2	7	7*	8*	9	10
<b>Petroleum products</b>							
Petroleum products - sales	Mb/day	2.4	2.3	1.8	1.8	1.7	1.6
<b>Gas</b>							
LNG-Sales	Mt	13	34	38	42	48	44
<b>Electricity</b>							
Gross renewable electricity capacity <sup>4</sup>	GW	0	3	7	10	17	22
Net production <sup>5</sup>	TWh	2	11	14	21	33	33
Clients BtB and BtC	Millions	<2	6	8	9	9	9
EV charging points	Thousands	0	0	22	26	42	60
<b>Low-carbon molecules</b>							
Biofuels - production	Mt	-	0.2	0.3	0.5	0.2	0.3
Biogas - production	TWh	-	-	-	<1	1	1
<b>Net investments</b>							
Oil	B\$	13	9	6	7	10	6
LNG & Gas	B\$	7	7	5	3	2	5
Low-carbon energies	B\$	0	1	2	4	4	6
Integrated Power	B\$	0	1	2	3	4	5
Low-carbon molecules	B\$	0	<1	<1	<1	<1	1
<b>Energy consumption</b>							
Net primary energy consumption <sup>6</sup>	TWh	153	160	147	148	166	157
Renewable energy consumption <sup>6</sup>	TWh	-	-	-	-	1	2
Global Energy Efficiency Indicator (GEEI)	Base 100 en 2010	90.8	88.0	90.2	87.0	85.1	86.4
<b>Energy management system</b>							
Operated sites with an auditable energy management system (annual consumption > 50 ktoe) <sup>7</sup>	Nb	-	-	26	27	27	34
Operated sites with annual consumption > 50 ktoe <sup>8</sup>	Nb	-	-	42	46	46	43

\* Valuation of these indicators excluding Covid-19 effect. **1.** Sales of petroleum products (from Marketing & Services and bulk refining sales). **2.** Marketable gas production of Exploration Production and LNG sales. **3.** Sales of electricity, distribution of biofuels, sales of biomass, biogas and H2. **4.** Gross installed renewable electricity generation capacity. **5.** Equity interest domain. **6.** Operated domain. **7.** The ISO 50001 standard accompanies the implementation in companies of an energy management system that allows better use of energy. **8.** Combined-cycle natural gas power plants are power generation facilities whose gas consumption is optimized for maximum efficiency. These installations benefit from efficient energy management and do not require the implementation of a specific energy management system.

Taxonomy	Unit	ELIGIBLE ACTIVITIES				ALIGNED ACTIVITIES			
		2022	2023	2022	2023	2022	2023	2022	2023
<b>Controlled perimeter</b>		<b>Turnover</b>		<b>CapEx</b>		<b>Turnover</b>		<b>CapEx</b>	
Electricity and renewables	%	3.0	2.1	13.7	23.5	1.1	1.1	13.3	22.9
<i>Incl. Electricity generation from natural gas</i>	%	1.8	0.9	0.3	0.3	0.0	0.0	0.0	0.0
Biofuels and chemicals	%	4.4	4.2	3.1	3.8	0.1	0.2	0.6	2.3
Other eligible activities	%	0.1	0.2	0.6	0.8	0.1	0.1	0.6	0.5
<b>TOTAL</b>	<b>%</b>	<b>7.5</b>	<b>6.5</b>	<b>17.4</b>	<b>28.1</b>	<b>1.3</b>	<b>1.4</b>	<b>14.5</b>	<b>25.7</b>
<b>Proportional view</b>		<b>Turnover</b>		<b>CapEx</b>		<b>Turnover</b>		<b>CapEx</b>	
Electricity and renewables	%	3.2	3.1	29.8	29.5	1.4	2.0	29.5	29.0
<i>Incl. Electricity generation from natural gas</i>	%	1.6	0.8	0.2	0.2	0.0	0.0	0.0	0.0
Biofuels and chemicals	%	5.5	5.3	3.5	3.5	0.1	0.3	0.6	2.1
Other eligible activities	%	0.2	0.2	0.7	0.9	0.2	0.2	0.7	0.6
<b>TOTAL</b>	<b>%</b>	<b>8.9</b>	<b>8.6</b>	<b>34.0</b>	<b>33.9</b>	<b>1.7</b>	<b>2.5</b>	<b>30.8</b>	<b>31.7</b>

1. Described in Delegated Regulations (EU) 2021/2139 of June 4, 2021, (EU) 2021/2178 of July 6, 2021 and (EU) 2023/2486 of June 27, 2023. 2. Activities for which there is currently no economically or technologically viable low-carbon alternative. 3. Activities that enable other activities to contribute to the achievement of one of six environmental objectives. 4. The Taxonomy regulation includes two climate objectives: (1) mitigation of climate change, and (2) adaptation to climate change. It also includes four other environmental objectives for which no eligible activities have been identified. 5. Relating to the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; and the protection and restoration of biodiversity and ecosystems.

#### Eligible activities – Aligned activities

An eligible activity<sup>1</sup> is an activity that falls into one of the following categories on the list established by the European Commission: low-carbon, transitional<sup>2</sup> or enabling<sup>3</sup>.

An aligned activity is an eligible activity that also meets a sustainability criterion; in other words, it contributes to one of the climate objectives<sup>4</sup> without adversely affecting the other environmental objectives<sup>5</sup> and meets minimum social standards.

Climate	Unit	OPERATED DOMAIN						EQUITY INTEREST DOMAIN					
		2015	2019	2020	2021	2022	2023	2015	2019	2020	2021	2022	2023
<b>GHG Emissions - Scope 1+2</b>													
<b>Scope 1- Direct emissions</b>	Mt CO <sub>2</sub> e	42	41	38 <sup>1</sup>	34 <sup>1</sup>	37	32	50	55	52	49	51	45
<b>Breakdown by segment</b>													
Upstream oil & gas activities	Mt CO <sub>2</sub> e	19	18	16	14	14	12	22	26	24	23	22	19
Integrated LNG, excluding upstream gas operations	Mt CO <sub>2</sub> e	-	0	<1	<1	<1	<1	-	1	1	1	1	1
Integrated Power	Mt CO <sub>2</sub> e	-	3	3	5	9	6	-	3	4	5	9	6
Refining & Chemicals	Mt CO <sub>2</sub> e	22	20	17	15 <sup>1</sup>	15	14	27	25	22	19	20	18
Marketing & Services	Mt CO <sub>2</sub> e	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
<b>Breakdown by geography</b>													
Europe: EU 27 + Norway + UK + Switzerland	Mt CO <sub>2</sub> e	22	24	22 <sup>1</sup>	20 <sup>1</sup>	23	19	22	23	20	18	21	18
Eurasia (inclu. Russia) / Oceania	Mt CO <sub>2</sub> e	5	1	1	1	<1	<1	13	18	17	17	15	12
Africa	Mt CO <sub>2</sub> e	12	11	10	9	9	8	9	8	7	7	7	7
Americas	Mt CO <sub>2</sub> e	4	4	4	5	5	5	5	6	7	7	8	7
<b>Breakdown by type of gas</b>													
CO <sub>2</sub>	Mt CO <sub>2</sub> e	39	39	34	32	36	31	-	-	-	47	50	43
CH <sub>4</sub>	Mt CO <sub>2</sub> e	2	2	2	1	1	1	-	-	-	1	1	1
N <sub>2</sub> O	Mt CO <sub>2</sub> e	<1	<1	<1	<1	<1	<1	-	-	-	<1	<1	<1
<b>Scope 2- Indirect emissions from energy use</b>	Mt CO <sub>2</sub> e	4	4	3 <sup>1</sup>	2 <sup>1</sup>	2	2	-	-	-	5	5	4
of which Europe: EU 27+ Norway + UK + Switzerland	Mt CO <sub>2</sub> e	2	2	2 <sup>1</sup>	1 <sup>1</sup>	1	1	-	-	-	2	2	2
<b>Scope 1+2</b>	Mt CO <sub>2</sub> e	46	44	41 <sup>1</sup>	37 <sup>1</sup>	40	35	-	-	-	54	56	49
vs 2015			-3%	-9%*	-20%*	-13%	-24%						
of which oil & gas facilities	Mt CO <sub>2</sub> e	46	42	39 <sup>1</sup>	33 <sup>1</sup>	33	30	-	-	-	49	48	44
of which CCGT	Mt CO <sub>2</sub> e	-	2	3 <sup>1</sup>	4	7	4	-	-	-	5	8	5
<b>GHG Emissions – Methane</b>													
<b>Methane emissions<sup>1</sup></b>	kt CH <sub>4</sub> vs 2020	94	68	64	49	42	34	-	-	-	51	47	40
<b>Breakdown by segment</b>													
Upstream oil & gas activities	kt CH <sub>4</sub>	92	66	62	48	41	33	-	-	-	48	43	36
Integrated LNG, excluding upstream gas operations	kt CH <sub>4</sub>	0	0	<1	<1	0	<1	-	-	-	2	3	2
Integrated Power	kt CH <sub>4</sub>	0	<1	<1	<1	1	<1	-	-	-	<1	1	<1
Refining & Chemicals	kt CH <sub>4</sub>	1	1	1	1	1	1	-	-	-	1	1	1
Marketing & Services	kt CH <sub>4</sub>	0	0	0	0	0	0	-	-	-	0	0	0
<b>Breakdown by geography</b>													
Europe: EU 27 + Norway + UK + Switzerland	kt CH <sub>4</sub>	9	15	12	7	7	5	-	-	-	5	5	4
Eurasia (inclu. Russia) / Oceania	kt CH <sub>4</sub>	33	3	3	1	1	1	-	-	-	16	15	11
Africa	kt CH <sub>4</sub>	49	39	31	23	23	18	-	-	-	18	17	19
Americas	kt CH <sub>4</sub>	3	10	18	18	12	9	-	-	-	12	10	7
<b>Flaring</b>													
Flared gas <sup>2</sup> (Upstream oil & gas activities operated scope)	Mm <sup>3</sup> /d	7.2	5.7	4.2	3.6	3.3	2.5						
of which routine flaring	Mm <sup>3</sup> /d	2.3 <sup>3</sup>	0.9	0.6	0.7	0.5	0.3						

\* Excluding Covid-19 effect for 2020 and 2021 emissions data. 1. Excluding biogenic methane.  
2. This indicator includes safety flaring, routine flaring and non-routine flaring. 3. Volumes based on historical data.

## Climate

	Unit	2015	2019	2020	2021	2022	2023	2023	
<b>Indirect GHG emissions and estimates of enabled emissions reductions</b>									
<b>Scope 3<sup>1</sup></b>									
of which Europe: EU 27 + Norway + UK + Switzerland	Mt CO <sub>2</sub> e	410	410	400*	400*	389*	355		
<b>Breakdown by product</b>	Mt CO <sub>2</sub> e	256	232	215*	220*	191*	216		
Petroleum products	Mt CO <sub>2</sub> e vs 2015	350	335 -4%	320* -9%	285* -19%	254* -27%	227 -35%		
Biofuels	Mt CO <sub>2</sub> e	-	-	-	-	4	4		
Gas	Mt CO <sub>2</sub> e	60	75	80*	115*	130	124		
<b>Estimates of enabled emissions reductions by TotalEnergies' LNG sales<sup>2</sup></b>	Mt CO <sub>2</sub> e	-	-	-	-	~70	~70		
<b>Detailed value chain – Scope 3<sup>1</sup></b>									
<b>Production</b>		<b>Midstream</b>		<b>Sales</b>					
 <b>Oil 1.4 Mb/d</b> (183 Mt CO <sub>2</sub> e)		<b>Refining 1.4 Mb/d</b> (179 Mt CO <sub>2</sub> e)		<b>Petroleum products 1.6 Mb/d</b> (227 Mt CO <sub>2</sub> e)					
 <b>n/a</b>		<b>Biorefining 28 kb/d</b> (2 Mt CO <sub>2</sub> e)		<b>Biofuels sales 73 kb/d</b> (4 Mt CO <sub>2</sub> e)					
 <b>Natural gas + condensates 1.1 Mboe/d</b> (121 Mt CO <sub>2</sub> e)		<b>Liquefaction 0.4 Mboe/d</b> (42 Mt CO <sub>2</sub> e)		<b>LNG + BtB/BtC gas sales 1.2 Mboe/d</b> (124 Mt CO <sub>2</sub> e)					
		<b>Third party long-term LNG purchases 0.5 Mboe/d</b> (50 Mt CO <sub>2</sub> e)							
The emissions associated with the various points on the value chains are not meant to be aggregated, given the integrated nature of our operations.									
<b>Intensity indicators</b>									
Lifecycle carbon intensity of energy products sold (73 g CO <sub>2</sub> e/MJ in 2015)	Base 100 in 2015	100	94	92*	90*	88	87		
Intensity of GHG emissions (Scope 1+2) of operated Upstream oil & gas activities <sup>3</sup>	kgCO <sub>2</sub> e/boe	21	19	18	17	17	17		
Intensity of GHG emissions (Scope 1+2) of Upstream oil & gas activities <sup>3</sup> on equity basis	kgCO <sub>2</sub> e/boe	-	-	-	19	19	18		
Intensity of methane emissions from operated oil & gas facilities (Upstream)	%	0.23	0.16	0.15	0.13	0.11	0.11		
Intensity of methane emissions from operated gas facilities (Upstream)	%	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
<b>Estimates of indirect GHG emissions - Scope 3</b>									
<b>Categories of Scope 3</b>									
Cat. 1 Purchased goods and services <sup>4</sup>	Mt CO <sub>2</sub> e	30	27						
Cat. 2 Capital goods <sup>5</sup>	Mt CO <sub>2</sub> e	<1	3						
Cat. 3 Fuel-and-energy-related activities (not included in Scope 1+2) <sup>6</sup>	Mt CO <sub>2</sub> e	3	4						
Cat. 4 Upstream transportation <sup>7</sup>	Mt CO <sub>2</sub> e	9	8						
Cat. 5 Waste generated in operations <sup>8</sup>	Mt CO <sub>2</sub> e	<1	1						
Cat. 6 Business travel <sup>9</sup>	Mt CO <sub>2</sub> e	<1	<1						
Cat. 7 Employee commuting <sup>10</sup>	Mt CO <sub>2</sub> e	<1	<1						
Cat. 8 Upstream leased assets <sup>11</sup>	Mt CO <sub>2</sub> e	0	0						
Cat. 9 Downstream transportation <sup>12</sup>	Mt CO <sub>2</sub> e	1	1						
Cat. 10 Processing of sold products <sup>13</sup>	Mt CO <sub>2</sub> e	6	5						
Cat. 11 Use of sold products <sup>14</sup>	Mt CO <sub>2</sub> e	389*	355						
Cat. 12 End of life treatment of sold products <sup>15</sup>	Mt CO <sub>2</sub> e	11	10						
Cat. 13 Downstream leased assets <sup>16</sup>	Mt CO <sub>2</sub> e	n/a	n/a						
Cat. 14 Franchises <sup>17</sup>	Mt CO <sub>2</sub> e	<1	<1						
Cat. 15 Investments <sup>18</sup>	Mt CO <sub>2</sub> e	n/a	n/a						

\* Excluding Covid-19 effect for emissions data from first half 2020 through first half 2022. **1.** GHG Protocol - Category 11. Petroleum products including bulk refining sales; biofuels; natural gas excluding minority stakes in public companies. See report glossary for further details. **2.** Potential emissions reductions that may have been contributed by TotalEnergies' LNG sales. **3.** This indicator doesn't include integrated LNG assets in its perimeter. **4.** Cradle-to-gate emissions from purchases of goods and services, excluding those reported in category 2 or 4. Calculated with the sum of purchases (excluding energy products resold) multiplied by specific monetary ratios, as well as 20 Mt CO<sub>2</sub>e in 2022 and 17 Mt CO<sub>2</sub>e in 2023 relating to purchases of oil and petroleum products (net of our production) and medium and long-term LNG supply contracts. **5.** Cradle-to-gate emissions from purchases of capital goods such as drilling, subsea equipment, valves, static equipment's purchase categories. Calculated with the sum of the purchases multiplied by specific monetary ratios. **6.** Cradle-to-gate emissions related to B2B/B2C electricity sales (excluding trading) net of TotalEnergies' electricity production in Europe. **7.** Upstream emissions related to the transport of energy products, including measured shipping emissions and estimated emissions related to land transport purchase categories, calculated with the sum of purchases multiplied by specific monetary ratios. **8.** Cradle-to-gate emissions from purchase categories linked to waste treatment and remediation. Calculated with the sum of purchases multiplied by specific monetary ratios. **9.** Emissions related to employee business travel as reported by contractors. **10.** Emissions related to the commuting of the Company's employees. The estimate uses the average emission factor reported by INSEE per employee. **11.** Direct emissions related to long-term contracted assets, which mainly correspond to sea charters for the transport of energy products, already included in category 4. **12.** Emissions related to the downstream transport of B2B marketing sales in M&S and petroleum products bulk sales of Refining. **13.** Emissions related to the transformation of the main non-energy intermediate products sold (sulphur, polymers, bitumen), based on most representative or conservative physical emission factors. **14.** Oil products including bulk refining sales; biofuels; natural gas excluding minority stakes in public companies. **15.** Emissions related to the end of life of the main non-energy products sold (lubricants, polymers, bitumen). **16.** Not applicable, the Company did not identify emissions linked to third party leasing. **17.** Emissions associated with service stations operated by third parties, calculated with TotalEnergies' Scope 1+2 emission intensity. **18.** Not applicable, emissions associated with non-operated activities are included in Scope 1+2 equity reporting.

In line with our commitment to transparency, this year we are publishing an estimate of indirect emissions in other Scope 3 categories according to the GHG Protocol and ipieca classification. The scope of reporting is specified for each category. The values of these estimates may change from year to year as estimation methodologies progress.

## Health and Safety

	Unit	2019	2020	2021	2022	2023
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### Occupational Safety

<b>Millions of hours worked - All personnel</b>	Mh	467	389	389	392	400
Company Employees	Mh	243	211	215	217	212
Contractors Personnel	Mh	224	178	174	175	188
<b>Number of occupational fatalities<sup>1</sup> - All personnel</b>	Nb	4	1	1	3	2
Company Employees	Nb	0	0	1	0	0
Contractors Personnel	Nb	4	1	0	3	2
<b>Number of occupational fatalities per hundred millions hours worked - All personnel</b>	Nb/100 Mh	0.86	0.26	0.26	0.77	0.50
Company Employees	Nb/100 Mh	0.00	0.00	0.46	0.00	0.00
Contractors Personnel	Nb/100 Mh	1.79	0.56	0.00	1.71	1.06
<b>Number of occupational injuries - All personnel</b>	Nb	376	289	285	263	252
Company Employees	Nb	181	134	127	130	108
Contractors Personnel	Nb	195	155	158	133	144
<b>Number of lost days due to accidents at work - All personnel</b>	Nb	8,108	6,764	5,980	5,724	4,800
Company Employees	Nb	4,949	3,429	2,703	3,116	2,508
Contractors Personnel	Nb	3,159	3,335	3,277	2,608	2,292
<b>Number of severe road accidents<sup>2</sup></b>	Nb	33	27	21	15	11
Light vehicles and public transportation	Nb	9	0	1	3	4
Heavy goods vehicles (truck)	Nb	24	27	20	12	7

### Health indicators (WHRS scope - Worldwide Human Resources Survey)

Percentage of employees with specific occupational risks benefiting from regular medical monitoring	%	98	97	97	99	100
Number of occupational illnesses recorded in the year (in accordance with local regulations)	Nb	128	136	158	129	107

	Unit	2019	2020	2021	2022	2023
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### Occupational Safety

<b>TRIR<sup>3</sup>: number of recorded injuries per million hours worked - All personnel</b>	Nb/Mh	0.81	0.74	0.73	0.67	0.63
Company Employees	Nb/Mh	0.74	0.63	0.59	0.60	0.51
Contractors Personnel	Nb/Mh	0.87	0.87	0.91	0.76	0.77
<b>LTIR: number of lost time injuries per million hours worked - All personnel</b>	Nb/Mh	0.48	0.48	0.48	0.45	0.40
Company Employees	Nb/Mh	0.52	0.50	0.47	0.51	0.42
Contractors Personnel	Nb/Mh	0.43	0.46	0.48	0.39	0.38
<b>SR: number of days lost due to accidents at work per million hours worked - All personnel</b>	Nb/Mh	17	17	15	15	12
Company Employees	Nb/Mh	20	16	13	14	12
Contractors Personnel	Nb/Mh	14	19	19	15	12

### Safety prevention of major industrial accidents

<b>Losses of primary containment (Tier 1 and Tier 2)<sup>4</sup></b>	Nb	73	84	77	48	48
Losses of primary containment (Tier 1)	Nb	26	30	29	11	19
Losses of primary containment (Tier 2)	Nb	47	54	48	37	29

<sup>1</sup> Target zero fatalities. <sup>2</sup>. Overturned vehicle or other accident resulting in the injury of a crew member or a passenger (recordable accident).

<sup>3</sup>. Target TRIR less than or equal to 0.65 in 2023 and 0.62 in 2024. <sup>4</sup>. Excluding acts of sabotage and theft. Target losses of primary containment Tier 1 and 2 less than or equal to 50 in 2023 and 45 in 2024.

Employees	Unit	2019	2020	2021	2022	2023	Unit	2019	2020	2021	2022	2023
<b>Employees</b>												
<b>Company's workforce Breakdown by region</b>												
<b>Nb</b>	<b>107,776</b>	<b>105,476</b>	<b>101,309</b>	<b>101,279</b>	<b>102,579</b>		<b>%</b>	<b>88.2</b>	<b>84.6</b>	<b>93.0</b>	<b>97.3</b>	<b>97.7</b>
Europe	%	61.5	62.8	63.2	63.3	63.2	days	2.7	1.6	1.8	2.3	2.5
of which France	%	34.1	34.0	34.7	34.5	34.6	days	0.4	0.8	1.2	1.0	1.2
Africa	%	9.4	9.6	9.8	10.4	10.2	days	-	-	1.2	1.4	1.3
North America	%	6.9	6.8	7.5	6.0	6.0	days	3.1 <sup>2</sup>	2.4 <sup>2</sup>	4.2	4.7	5.0
Latin America	%	12.4	11.3	11.6	13.1	13.4						
Asia-Pacific	%	9.0	6.7	7.2	6.5	6.4						
Middle East	%	0.8	2.8	0.7	0.7	0.8						
<b>Gender</b>												
<b>% of women</b>							<b>%</b>	<b>69.3</b>	<b>77.2</b>	<b>80.6</b>	<b>81.8</b>	<b>82.5</b>
Among all employees	%	35.8	34.8	35.8	36.3	36.9	Companies offering the option of occasional remote working	51.2	87.4	84.3	83.3	82.5
Among senior management <sup>1</sup>	%	20.5	21.1	22.6	23.8	25.1	Employees covered by a collective bargaining agreement	71.2	71.9	72.6	73.6	73.0
Among senior executives	%	23.0	25.7	26.5	27.5	28.3	Employees with labor union representation and/or employee representation	88.2	91.7	90.8	91.8	91.5
<b>Internationalization</b>												
<b>% of employees of non-French nationality</b>							Number of active agreements signed with employee representatives worldwide	Nb	312	281	347	330
Among senior management <sup>2</sup>	%	32.5	32.1	34.0	34.2	36.3			321	281	347	330
Among senior executives	%	34.1	36.3	36.6	37.4	37.7			404			
<b>Living wage<sup>3</sup></b>												
Employees receiving direct remuneration that is at least equal to the living wage in the country or region in which they work	%	-	-	98	100	100						

1. Restated 2019 to 2021 data. The percentage of women was 19.9% in 2021, 18.2% in 2020 and 17.4% in 2019 based on the previous calculation method, which did not include JL14 and senior executives. 2. Restated 2019 to 2021 data. The percentage of employees of non-French nationality was 33.8% in 2021, 31.8% in 2020 and 32.4% in 2019 based on the previous calculation method, which did not include senior executives. 3. A living wage is defined as income that, in exchange for standard work hours, allows employees to ensure a decent life for their families, cover their essential costs and cope with unforeseen events. This criterion applies to the so called "périmètre de gestion" i.e., all subsidiaries controlled at more than 50%.

Environment	Unit	2019	2020	2021	2022	2023	Unit	2019	2020	2021	2022	2023	
<b>Environmental footprint</b>													
<b>Atmospheric chronic emissions (excluding GHG)</b>													
SO <sub>2</sub> emissions	kt	39	34	16	13	12	Number of spills	Nb	57	50	65	49	27
NO <sub>x</sub> emissions	kt	72	64	59	60	60	Total volume of spills	10 <sup>3</sup> m <sup>3</sup>	1.2	1.0	2.0	0.1	1.7
NMVOC <sup>1</sup> emissions	kt	83	69	58	48	43	Total volume recovered	10 <sup>3</sup> m <sup>3</sup>	-	-	1.7	0.1	0.0
Total particulate matters	kt	-	-	3.8	3.9	4.1							
<b>Discharged water quality</b>													
Offshore continuous water discharges hydrocarbon content	mg/l	13.0	12.8	13.7	12.9	11.6							
% of sites that meet the target for offshore discharges quality (30 mg/l)	%	100 <sup>2</sup>	100 <sup>2</sup>	92	93	92							
Onshore continuous water discharges hydrocarbon content	mg/l	1.7	1.9	2.6	1.8	1.9							
Sites that meet the 2030 target for onshore discharges quality: 1 mg/l	%	-	-	80	73	86							
<b>Water-related indicators</b>													
Fresh water withdrawals excluding open loop cooling water	Mm <sup>3</sup>	115	105	101	107	102							
Fresh water withdrawal in water stress area <sup>3</sup>	Mm <sup>3</sup>	-	52	54	55	50							
Fresh water consumption	Mm <sup>3</sup>	-	75	75	80	76							
<b>Forest-related indicators</b>													
Deforested area	ha	-	-	-	0	81							
Compensated area	ha	-	-	-	0	59							
Net deforestation <sup>4</sup>	ha	-	-	-	0	22							
<b>Environmental management system</b>													
ISO 14001 certified sites	Nb	281	266	279	284	281	No oil or gas exploration/extraction activity in UNESCO areas	Respected	Respected	Respected	Respected	Respected	
Sites important for the environment ISO 14001 certified	Nb	77	79	79	80	79	No oil field exploration activity in the arctic sea ice zone	Respected	Respected	Respected	Respected	Respected	
Sites important for the environment ISO 14001 certified	%	100	97	100	100	100	New projects						
							Biodiversity plans deployed or in preparation for our sites located in area of interest for biodiversity <sup>2</sup>	Nb	-	6	8	7	8
							Existing sites						
							Biodiversity diagnostics carried out on sites important for the environment cumulated	Nb	-	-	5	43	70

1. Non-methane volatile organic compounds. 2. Alwyn and Gryphon sites (United Kingdom) excluded in 2019 and 2020, as its produced water discharges only occur during the maintenance periods of the water reinjection system and are subject to a specific regulatory declaration. 3. In 2023, the freshwater withdrawal values in water stress areas are evaluated from the Projected Basic Water Stress 2030 V4.0 from August 2023 and the watershed of Carling - St Avold sites in France is excluded from these calculations since the withdrawal of groundwater is administratively imposed there for environmental reasons. 4. Zero net deforestation target from 2022 for each of new projects, on new sites. Projects to compensate for the difference are currently being put in place.

Risks of accidental pollution						
Accidental liquid hydrocarbon spills						
Number of spills	Nb	57	50	65	49	27
Total volume of spills	10 <sup>3</sup> m <sup>3</sup>	1.2	1.0	2.0	0.1	1.7
Total volume recovered	10 <sup>3</sup> m <sup>3</sup>	-	-	1.7	0.1	0.0
Waste management						
Company's waste balance and waste treatment processes <sup>1</sup>						
Total volume of processed waste	kt	662	501	500	498	521 <sup>3</sup>
Non-hazardous waste	kt	375	303	335	322	319
Hazardous waste	kt	288	198	165	176	202
Reuse <sup>2</sup>	%	65	59	61	61	61
Circular economy						
Quantity of circular feedstock	Mt vs 2021	-	-	3.4	3.4	3.8 +10%
Sales from circular products	B\$ vs 2021	-	-	4.2	5.4 +30%	4.5 +8%
Biodiversity <sup>1</sup>						
Respecting our commitment to voluntary exclusion zones						
No oil or gas exploration/extraction activity in UNESCO areas	Respected	Respected	Respected	Respected	Respected	Respected
No oil field exploration activity in the arctic sea ice zone	Respected	Respected	Respected	Respected	Respected	Respected
New projects						
Biodiversity plans deployed or in preparation for our sites located in area of interest for biodiversity <sup>2</sup>	Nb	-	6	8	7	8
Existing sites						
Biodiversity diagnostics carried out on sites important for the environment cumulated	Nb	-	-	5	43	70

1. See section 5.5.4 of 2023 URD for detailed reporting on action plans implemented on our four Biodiversity axes. 2. IUCN zone (International Union for Conservation of Nature) I to IV and Ramsar areas for IFC standard projects.

## Positive Impact for Stakeholders

Unit	2019	2020	2021	2022	2023	Unit	2019	2020	2021	2022	2023
<b>Human rights</b>											
Subsidiaries <sup>1</sup> with an integrated grievance mechanism	%	47	99	100	100	100					
Number of complaints received in the reference year	Nb	-	-	-	-	638					
Percentage of solved complaints <sup>2</sup>	%	-	-	-	-	80					
Priority supplier audits <sup>3</sup>	Nb	100	79	83	200	300					
Ethics and Human Rights audits	Nb	7	2	2	5	4					
<b>Fighting corruption</b>											
Online anti-corruption training course attended <sup>4</sup>	Nb	5,791	9,701	13,215	38,624	17,195					
Integrity <sup>5</sup> incidents recorded	Nb	388	326	350	207	200					
<b>Value sharing</b>											
Net investments	B\$	17	13	13	16	17					
Dividends	B\$	8	8	8	10	8					
Buybacks	B\$	2	1	2	7	9					
Salaries and social charges	B\$	9	9	9	9	9					
Taxes <sup>6</sup>	B\$	13	6	16	33	25					
Initiatives of general interest											
Number of actions for Action! Program <sup>1</sup>	Nb	4,140	4,119	8,146	11,028	13,975					
Europe	Nb	3,524	2,952	6,115	7,410	9,191					
Africa	Nb	249	709	1,208	1,664	2,072					
Asia	Nb	293	191	415	923	1,480					
Latin America	Nb	49	159	253	609	786					
North America	Nb	25	2	131	231	407					
Oceania	Nb	0	106	24	191	39					
TotalEnergies Corporate Foundation											
Expenditures of TotalEnergies Corporate Foundation	M€	27	46	73	65	54					

1. Worldwide community volunteering program for employees who can devote up to three workdays a year to local community projects.

1. Subsidiaries in the One MAESTRO roll-out scope with an operational activity. 2. Number of complaints received/number of complaints solved in the reference year. 3. On the respect of the Fundamental Principles of Purchasing including human rights. 4. A new online training course was launched in 2022, covering the years 2022 and 2023. 5. Incidents covering fraud (excluding attempts since 2022), corruption or influence peddling. 6. Current tax expenses and taxes on production.

# THE CARBON CAPTURE AND STORAGE PROJECTS

## Incorporating CCS in our assets

Asset	CCS Project name	Country	CCS project operator	U/S <sup>5</sup> , LNG or D/S <sup>5</sup>	New project or existing asset	GHG reduction potential (100%) <sup>1</sup>	CCS project maturity
<b>Snøhvit</b>	N/A	Norway	Equinor	U/S	Existing asset	0.7 MTPA	Under operation
<b>NFE</b>	CCS	Qatar	QatarEnergy LNG (process) QatarEnergy (storage)	U/S	New project	2.1 MTPA	Under development
<b>NFS</b>	CCS	Qatar	QatarEnergy LNG (process) QatarEnergy (storage)	U/S	New project	1.1 MTPA	Under development
<b>LNG North 2<sup>2</sup></b>	CCS	Qatar	QatarGas	U/S	Existing asset	0.6 MTPA	Under study
<b>Ichthys</b>	Bonaparte CCS	Australia	Inpex	U/S	Existing asset	3.3 MTPA	Under study
<b>Cameron LNG</b>	Hackberry CCS	United States	Hackberry Carbon Sequestration LLC	LNG	Existing asset + potential expansion	Up to 2 MTPA	Under study
<b>Antwerp refinery</b>	ARCaDe <sup>3</sup>	Belgium (capture) Tbd <sup>4</sup> (storage)	TotalEnergies (process) Tbd <sup>4</sup> (transport & storage)	D/S	Existing asset	0.7 MTPA	Under study

1. GHG reduction potential is the CO<sub>2</sub> injected for storage. The associated GHG Scope 1+2 emissions generated during the project are not discounted. 2. Ex-QatarGas 2. 3. Antwerp Refinery Carbon capture and DeNOx. 4. CCS transport & storage's selection is ongoing.

5. U/S = Upstream ; D/S = Downstream.

## Offering Carbon Transport & Storage services

Project	Operator	Clients <sup>1</sup>	National or Transborder <sup>2</sup>	Transborder CO <sub>2</sub> collection Hub	CO <sub>2</sub> storage Country	CO <sub>2</sub> storage type <sup>2,3</sup>	Project maturity	CO <sub>2</sub> storage capacity (100%)	Start-up year
<b>Northern Lights</b>	Northern Lights	Norcem, Celsio, Yara, Ørsted	Both National and Transborder	Øygarden terminal, Norway	Norway	Saline aquifer	Phase 1: Under construction, Phase 2: FEED completed	Phase 1 = 1,5 Mt CO <sub>2</sub> /y Phase 2 to 5 Mt CO <sub>2</sub> /y	2025
<b>Northern Endurance Partnership (NEP)</b>	BP	Emitters from industrial regions of Teeside	National	No	United Kingdom	Saline aquifer	Phase 1: FID scheduled in 2024 Expansion: Under study	Phase 1 = 4 Mt CO <sub>2</sub> /y Expansion up to 10 Mt CO <sub>2</sub> /y	2028
<b>Aramis</b>	TotalEnergies (Storage), JVs (Transport)	Emitters from Netherlands, Belgium mainly	Both National and Transborder	Rotterdam Harbour, Netherlands	Netherlands	Depleted gas field	Phase 1: FEED <sup>4</sup> ongoing	Phase 1 = 2,5 Mt CO <sub>2</sub> /y Expansion to 5,5 Mt CO <sub>2</sub> /y	2029
<b>Bifrost</b>	TotalEnergies	Emitters from Denmark, Germany, Baltics countries, etc.	Both National and Transborder	Terminal / Pipe	Denmark	Depleted gas field, Saline aquifer	Under study	Beyond 5 Mt CO <sub>2</sub> /y	2030
<b>Luna</b>	Wintershall Dea	Emitters from Belgium, Germany, Netherland, France, etc.	Both National and Transborder	Shipping / Pipe	Norway	Saline aquifer	Under study	Beyond 5 Mt CO <sub>2</sub> /y	2030

1. Clients and potential future clients. 2. National by gas pipe, Transborder by Shipping & gas pipe. 3. Storage is located offshore. 4. Front-End Engineering Design.

# Glossary

## Units of measurement

<b>b</b>	barrel
<b>B</b>	billion
<b>boe/d</b>	barrel of oil equivalent per day
<b>CO<sub>2</sub>e</b>	CO <sub>2</sub> equivalent
<b>e</b>	equivalent
<b>G</b>	giga
<b>J</b>	joule
<b>k</b>	thousand
<b>M</b>	million
<b>MMBtu</b>	million British Thermal Unit
<b>Mm<sup>3</sup></b>	million cubic meters
<b>Mtpa</b>	million tons per year (of LNG)
<b>PJ</b>	petajoule (10 <sup>15</sup> joules)
<b>t</b>	metric ton
<b>TWh</b>	terawatt-hour
<b>W</b>	watt

## Acronyms

<b>AI</b>	Artificial Intelligence
<b>BESS</b>	Battery Energy Storage Systems
<b>CCGT</b>	Combined Cycle Gas Turbine
<b>CCS</b>	Carbon Capture & Storage
<b>CCUS</b>	Carbon Capture, Utilization and Storage
<b>CNG</b>	Compressed Natural Gas
<b>EACOP</b>	East African Crude Oil Pipeline
<b>EPA</b>	Environmental Protection Agency
<b>ESS</b>	Energy Storage Systems
<b>FEED</b>	Front-End Engineering Design

<b>FID</b>	Final Investment Decision
<b>GHG</b>	Greenhouse Gas
<b>GRI</b>	Global Reporting Initiative
<b>GRP</b>	Gas, Renewables & Power
<b>IEA</b>	International Energy Agency
<b>IPBES</b>	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPIECA</b>	International Petroleum Industry Environmental Conservation Association
<b>ISSB</b>	International Sustainability Standard Board
<b>IUCN</b>	International Union for conservation of Nature
<b>LNG</b>	Liquefied Natural Gas
<b>NBS</b>	Nature Based Solution
<b>NFE</b>	North Field East (Qatar)
<b>NFS</b>	North Field South (Qatar)
<b>NGV fuel</b>	Natural Gas Vehicle Fuel
<b>OGCI</b>	Oil & Gas Climate Initiative
<b>ROACE</b>	Return on Average Capital Employed
<b>SAF</b>	Sustainable Aviation Fuel
<b>SEC</b>	Securities and Exchange Commission (US)
<b>TNFD</b>	Taskforce on Nature-related Financial Disclosures
<b>UNEP-</b>	
<b>WCMC</b>	United Nation Environment Program – World Conservation Monitoring Centre
<b>WBCSD</b>	World Business Council for Sustainable Development
<b>WEF</b>	World Energy Forum
<b>WEO</b>	World Energy Outlook
<b>WRI</b>	World Resource Institute
<b>\$</b>	Abbreviation for the United States dollar

## Definitions

### Biogas

A renewable gas produced from the fermentation of organic waste. Biogas can be purified to obtain biomethane, which has the same properties as natural gas and can therefore be injected into the gas distribution network or used as an alternative fuel for mobility (bio-NGV or bio-LNG).

### Biomethane

An upgraded biogas with the same characteristics as natural gas. Biomethane can be injected into the gas distribution network.

### Contractor/service provider personnel

Any employee of a contractor or service provider working at a site that is part of the safety reporting Scope or assigned by a transport company under a long-term contract.

### Estimates of enabled emissions reductions

#### by TotalEnergies' LNG sales

The Company has identified, for each recipient country, the likely source of competing flexible power generation. Where the end-use of customers is established and the alternative source identified, the difference between the emissions of the alternative fuel (fuel oil or coal) and the gas has been calculated, using each country's power generation emission factors for each of these sources, as published by the IEA (with the exception of France,

# Glossary

where the emission factors published by RTE France have been used). For countries where the end use of LNG sales is not identified, this method is applied to sales weighted by the percentage of electricity generation in local gas consumption.

## Equity interest domain

Sites and industrial assets in which the consolidated affiliates have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated extra-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because they are not material from a financial standpoint. Those emissions are calculated on a pro rata basis according to the Company's share in the entity or the production (in the case of Upstream oil and gas operations).

## Greenhouse gases (GHG)

The six greenhouse gases named in the Kyoto Protocol: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>), with their respective Global Warming Potential (GWP), as described in the 2007 IPCC report. HFCs, PFCs and SF6 are virtually absent from the Company's emissions or are considered non-material, and are therefore no longer counted as of 2018.

### Hydrocarbon spills

Accidental spills of liquid hydrocarbons that have an environmental impact and exceed one barrel in volume, excluding acts of sabotage and theft.

### Lifecycle carbon intensity of energy products sold

This indicator measures the average GHG emissions of a unit of energy used by the Company's customers across its lifecycle (i.e., Scope 1+2+3), from production to end use by customers. This indicator is calculated as a division which takes into account:

For the numerator:

- emissions related to the production and conversion of energy products used by the customers of the Company;
- emissions related to the end use of energy products sold to TotalEnergies customers. For each product, stoichiometric emission factors<sup>1</sup> are applied to these sales to obtain a quantity of emissions. Products not intended for combustion, such as bitumen, lubricants and plastics are not taken into account;
- less the CO<sub>2</sub> sequestered by Carbon Capture and Storage (CCS) and natural carbon sinks.

For the denominator:

- the quantity of energy sold. Electricity is placed on an equal footing with fossil fuels, taking into account average capacity factors and average efficiency ratios.

The carbon intensity indicator therefore corresponds to the average emissions associated with each unit of energy used by customers. To track changes in the indicator, it is expressed in base 100 compared to 2015.

### Lost Time Injury Rate (LTIR)

Frequency rate of lost-time injuries.

### Low-carbon hydrogen

Hydrogen produced from non renewable resources but with greenhouse gas emissions below a maximum threshold. For example, the hydrogen produced from natural gas via the steam reforming process associated with a capture and storage (CCS) process. In Europe, the maximum threshold of greenhouse gas emission for low-carbon hydrogen is the same as that for renewable hydrogen, i.e. 3.38 kg CO<sub>2</sub>e/kg H<sub>2</sub> according to the European Directive 2018/2001 named RED II. In common language, low-carbon hydrogen is often considered to include renewable hydrogen.

### Scope 1 GHG emissions

Direct emissions related to the Company's activities. Direct emissions of biogenic CO<sub>2</sub> are excluded from Scope 1 and reported separately.

### Scope 2 GHG emissions

Indirect emissions attributable to brought-in energy (electricity, heat, steam), net of any energy sales, excluding purchased industrial gases (H<sub>2</sub>). Unless otherwise indicated, TotalEnergies reports Scope 2 GHG emissions using the market-based method defined in the GHG Protocol.

1. The emission factors used are taken from a technical note of the CDP: Guidance methodology for estimation of scope 3 category 11 emissions for oil and gas companies.

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## Scope 3 GHG emissions

Other indirect emissions. If not stated otherwise, TotalEnergies reports Scope 3 GHG emissions, category 11, which correspond to indirect GHG emissions related to the end use of energy products sold to the Company's customers, i.e. from their combustion to obtain energy. The Company follows the oil & gas industry reporting guidelines published by Ipieca, which comply with the GHG Protocol methodologies. In order to avoid double counting, this methodology accounts for the largest volume in the oil, biofuels and gas value chains, i.e. the higher of the two of production volumes or sales.

For TotalEnergies, in 2023, the calculation of Scope 3 GHG emissions for the oil and biofuels<sup>2</sup> value chains considers products sales with a view to their end use and, for the gas value chain, gas sales either as LNG or as part of direct sales to B2B/B2C customers. A stoichiometric emission (oxidation of molecules to carbon dioxide) factor is applied to these sales or production to obtain an emission volume.

## Serious road accident

Overturned vehicle or other accident resulting in the injury of a crew member or a passenger (recordable accident) involving a TotalEnergies vehicle or vehicle on long-term contract with TotalEnergies (> 6 months).

2. The abatement rates applied to the emissions of biofuels compared to equivalent fossil fuels are in line with the minimums required by European regulations (REDII). An average value of approximately -55% is used.

## Severity rate (SR)

Number of lost-time days due to accidents at work per million hours worked.

## Sites important for the environment

Production sites of the Exploration & Production segment subsidiaries, sites producing more than 250 kt/y in the Refining & Chemicals and Marketing & Services segments, and gas-fired power plants in the Integrated Power segment, operated by the Company.

## Socle Social Commun or 'Common Social Basis'

The 'Socle Social Commun' or 'Common Social Basis' (whereby all employees have the same rights) brings together the following in France: TotalEnergies SE, Elf Exploration Production, TotalEnergies Marketing Services, TotalEnergies Marketing France, TotalEnergies Additives and Fuels Solutions, TotalEnergies Lubrifiants, TotalEnergies Fluids, TotalEnergies Raffinage Chimie, TotalEnergies Petrochemicals France, TotalEnergies Raffinage France, TotalEnergies Global Information Technology Services, TotalEnergies Global Financial Services, TotalEnergies Global Procurement, TotalEnergies Global Human Resources Services, TotalEnergies Learning Solutions, TotalEnergies Facilities Management Services, TotalEnergies Consulting and TotalEnergies OneTech.

## Tier 1 and Tier 2

Indicator of the number of loss of primary containment events with more or less significant consequences (fires, explosions, injuries, etc.), as defined by API 754 (for downstream) and IOGP 456 (for upstream) standards. Excluding acts of sabotage and theft.

## Total Recordable Injury Rate (TRIR)

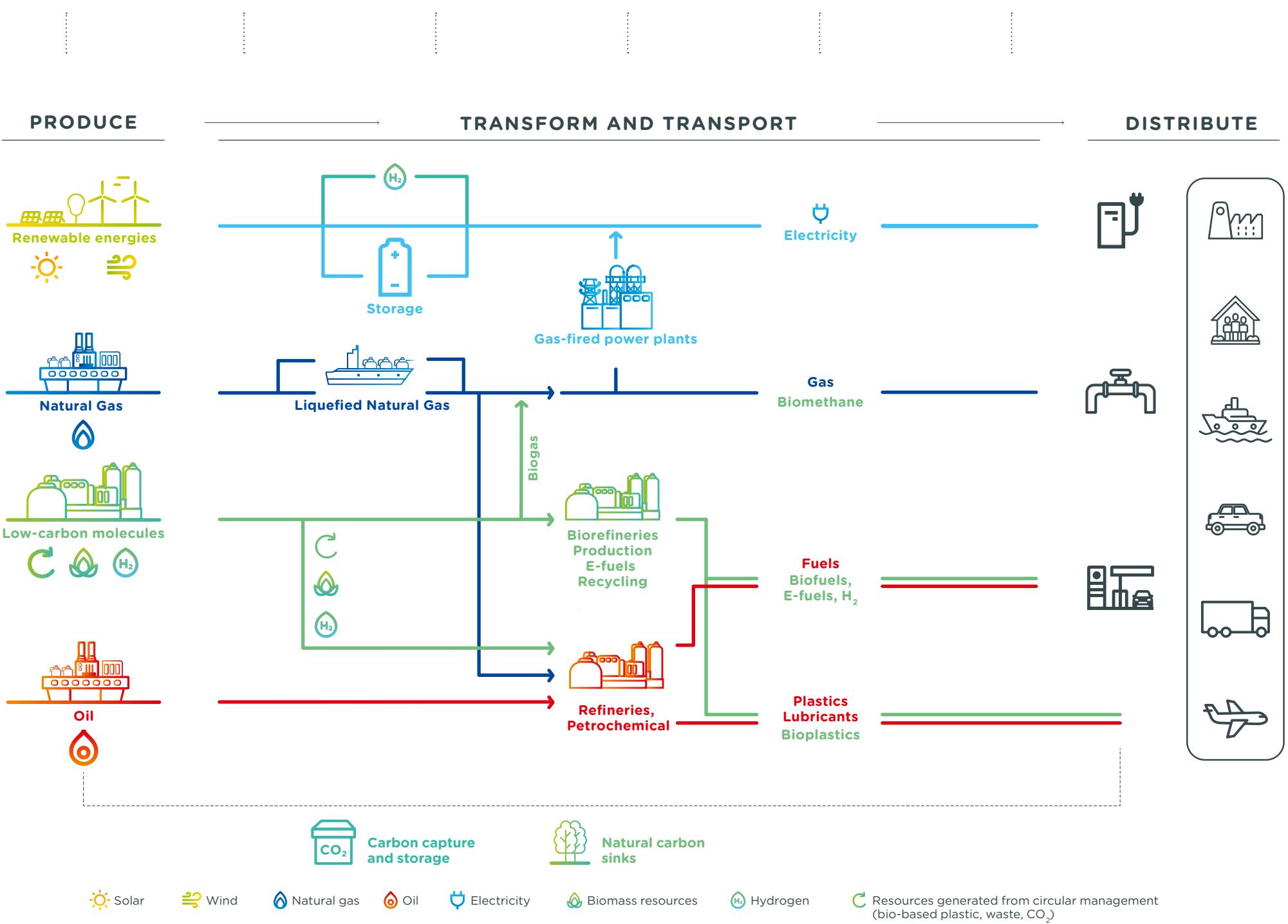
Frequency rate of recordable injuries.

## Upstream oil and gas operations

Upstream oil and gas exploration and production operations of the Exploration & Production and Integrated LNG segments. Does not include power generation from renewable sources or natural gas, such as combined-cycle gas power plants.

## Worldwide Human Resources Survey (WHRs)

An annual study that includes 292 workforce indicators including the health indicators. The survey covers a representative sample within the consolidated scope. The data published in this document is extracted from the most recent survey, carried out in December 2023 and January 2024; 137 companies in 51 countries, representing 90.0% of the consolidated Company workforce (92,319 employees), responded to all the topics.



#### Cautionary Note

The terms "TotalEnergies," "TotalEnergies company" or "Company" in this document are used to designate TotalEnergies SE and the consolidated entities that are directly or indirectly controlled by TotalEnergies SE. Likewise, the words "we," "us" and "our" may also be used to refer to these entities or to their employees. The entities in which TotalEnergies SE directly or indirectly owns a shareholding are separate legal entities. This document makes reference to greenhouse gas emissions. The Company has control over emissions from the facilities it operates (Scope 1) and their indirect emissions from purchased energy (Scope 2). By contrast, it does not have control over emissions from the end use of its products by its customers (Scope 3), and trends in those emissions depend largely on external factors, such as government policies and customer choices (for additional information on the definition of Scope 1, 2 and 3, refer to the Universal Registration Document). The use in this document of expressions such as "carbon intensity of the products sold by the Company," "carbon footprint of the Company" or similar expressions, insofar as they include Scope 3 emissions, does not mean that the latter are TotalEnergies emissions.

This document may contain forward-looking statements. Specifically, this document may contain statements regarding the perspectives, objectives, areas for improvement and goals of TotalEnergies, including with respect to climate change and carbon neutrality (net-zero emissions). An ambition expresses an outcome desired by TotalEnergies, it being specified that the means to be deployed do not depend solely on TotalEnergies. These forward-looking statements may prove to be inaccurate in the future and are subject to a number of risk factors. Neither TotalEnergies SE nor any of its affiliates assumes any obligation with respect to investors or any other stakeholder to update or revise any forward-looking information or statement, objectives or trends contained in this document whether as a result of new information, future events or otherwise. Further information on risk factors that could have a significant adverse effect on the financial performance or operations of TotalEnergies is provided in the most recent version of the Universal Registration Document, which is filed by TotalEnergies SE with the French Autorité des Marchés Financiers and on Form 20-F filed with the United States Securities and Exchange Commission ("SEC").

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