



BIG OIL REALITY CHECK 2023

FRENCH OIL AND GAS MAJOR CONTINUES TO INVEST IN NEW EXTRACTION INCOMPATIBLE WITH THE 1.5°C LIMIT

SUMMARY

The case for keeping oil, fossil gas, and coal in the ground and transitioning to clean, renewable energy is stronger and more urgent than ever. Peer-reviewed research by Oil Change International (OCI) and partners reveals that existing oil and gas fields and coal mines globally already contain more fossil fuels than the world can extract and burn under the Paris Agreement.¹ These fields have billions of dollars invested in their infrastructure and leave no room for new expansion. The International Energy Agency (IEA) found in 2021 and reconfirmed in 2022 that approving new oil and gas fields for construction is incompatible with the 1.5°C degrees Celsius (°C) global warming limit, given already developed fields hold enough reserves to fulfill demand as oil and gas use is phased out.² The Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report on the climate crisis affirms that the world has already built too much fossil fuel infrastructure³ and underlines that, "Global fossil fuel use [...] must decline substantially by 2030 to limit warming to 1.5°C."⁴

More specifically, a range of 1.5°C-aligned scenarios published by the IPCC and IEA show oil and gas production and use declining by around 3 percent per year, on average, in the 2020s.⁵ In the

IEA's scenario, that pace accelerates to 7 percent per year in the 2030s.⁶ A more rapid phase-out could reduce the risks of passing irreversible climate tipping points, as well as of relying on expensive, risky, and unjust fossil fuel-perpetuating technologies like carbon capture and storage and engineered carbon removal.^{7,a}

Against this background, companies like TotalEnergies are portraying their business models as part of the energy transition,⁸ yet continue to prioritize oil and gas investments that fuel more climate chaos.⁹ This briefing shows that TotalEnergies' plans and investments are strikingly inconsistent with the findings of the IPCC that immediate and rapid action to phase out fossil fuels is necessary to hold global warming to 1.5°C.^{b,10}

- TotalEnergies plans to increase its oil and gas production from 2022 to 2030, and possibly beyond.¹¹
- TotalEnergies is on track to be one of the world's leading oil and gas expanders in the near term (2022 through 2025) – in other words, one of the companies locking in the most new oil and gas development that is incompatible with the 1.5°C global warming limit.¹² That is:

- In 2022, TotalEnergies ranked third globally in approving new oil and gas expansion^{c,13} – sanctioning new fields containing more than 1.2 billion barrels of oil equivalent (BOE) in reserves (Figure 1).¹⁴
- Cumulatively from 2023 to 2025, the company is on track to approve new projects that could lead to over 1,600 million tonnes (Mt) of carbon-dioxide (CO₂) pollution over their lifetimes, if the projects' oil and gas reserves are fully extracted and burned.^{15,d}
- TotalEnergies' 2030 emissions targets would allow company-wide emissions to remain flat between 2022 and 2030, rather than falling as is required to stay below 1.5°C.¹⁶

TotalEnergies does not hide its intent to continue exploiting more oil and gas. In the words of the company's CEO, Patrick Pouyanné:¹⁷

We are very simple guys at TotalEnergies: we see giant resources, we cannot avoid trying to get in.

In February 2023, TotalEnergies announced record net profits of USD 36.2 billion – more than double its 2021 profits,¹⁸ leading Pouyanné to boast that TotalEnergies was "the most profitable

a Most of the assessed IPCC scenarios and the IEA's Net Zero Emissions (NZE) scenario include some level of overshoot of the 1.5°C limit, which could be minimized or avoided by a faster phase out of fossil fuels. The feasibility of CCS deployment is cited by the IEA as one of the largest uncertainties in its NZE scenario. In the IPCC AR6 illustrative mitigation pathway (IMP) that avoids reliance on CCS or carbon-dioxide removal in the energy sector, the Low Demand IMP, oil and gas decline by an annual average rate of seven percent per year between 2020 and 2050.

b For example, the IPCC AR6 finds that global greenhouse gas emissions must peak immediately and fall by 43 percent below 2019 levels by 2030, including a 50 percent reduction in CO₂ emissions over that same time period. The IPCC further warns, "If investments in coal and other fossil infrastructure continue, energy systems will be locked-in to higher emissions, making it harder to limit warming to 2°C or 1.5°C." By contrast, TotalEnergies is targeting a 3 percent reduction in scope 3 greenhouse gas emissions between 2019 and 2030 (scope 3 emissions are around 90 percent of the company's reported scope 1+2+3 emissions) and TotalEnergies continues to invest in new fossil fuel infrastructure. (See endnote 10.)

c New oil and gas expansion is defined as final investment decisions (FIDs) taken to approve construction of new oil and gas fields or new shale drilling. The only companies responsible for approving more oil and gas expansion in 2022 were nationally owned companies (NOCs), Saudi Aramco and Petrobras. (See endnote 13.)

d This finding is taken from OCI's November 2022 briefing, *Investing in Disaster: Recent and Anticipated Final Investment Decisions for New Oil and Gas Production Beyond the 1.5°C Limit*. The methodology for the CO₂ emissions estimate is available in the Methodology Note (p. 17), available at: <https://priceofoil.org/2022/11/16/investing-in-disaster/>. The CO₂ emissions estimate represents the cumulative carbon pollution that burning the oil and gas reserves contained in new projects approved from 2023 through 2025 would cause, if they are approved for development and fully extracted (e.g., primarily scope 3, or end-use, emissions). We do not estimate the additional methane pollution that would be caused while extracting, processing, and transporting the oil and gas. Part or all of these emissions can be avoided by foregoing development of some or all of the projects.

major in 2022.”¹⁹ When announcing these record profits, Pouyanné did not mention the 429 million tonnes (Mt) of carbon-dioxide (CO₂) pollution that TotalEnergies reported generating through its fossil-fuel dominated business activities in 2022.²⁰ By comparison, France’s gross national emissions in 2022 were estimated at 408 Mt CO₂ equivalent (CO₂e).²¹ That is, by its own reporting, TotalEnergies as a company generated more worldwide carbon pollution than its home country of France.

TotalEnergies primarily used its record 2022 profits to boost fossil fuel

investments and payouts to shareholders – not clean energy. For every one dollar that TotalEnergies reported spending on ‘low-carbon energies’ in 2022, the company spent a combined eight dollars on investments in oil and gas and on rewarding shareholders with dividends and buy-backs (Figure 3).

In line with our 2022 *Big Oil Reality Check* assessment,²² TotalEnergies’ climate pledges and plans remain **grossly insufficient** in comparison to the minimum criteria we assess for alignment with the Paris Agreement.

TOTALENERGIES’ PROMISES AND PLEDGES ARE GROSSLY INSUFFICIENT

Since 2020, Oil Change International has evaluated big oil and gas company’s climate pledges against ten minimum baseline criteria for assessing whether the company’s climate pledges and plans came even close to aligning with the Paris Agreement.²³ A detailed explanation of our rating criteria is available in Table 2 of our May 2022 report.²⁴ Against these criteria, TotalEnergies’ climate pledges and plans remain grossly insufficient, as shown in Table 1:

Table 1: Applying the *Big Oil Reality Check* criteria to assess TotalEnergies’s climate plans

Ambition					Integrity				People-centered transitions	
Stop exploration	Stop approving new extraction projects	Decline oil and gas production		Set explicit end date for oil and gas extraction and long-term production phase-out plan, aligned with 1.5°C	Set absolute target(s) to reduce all its emissions, including value chain emissions	Do not rely on carbon sequestration or offsets	Be honest about fossil gas as high carbon	End lobbying and ads that obstruct climate solutions	Commit plans and funding to support workers’ transitions into new sectors	Uphold human rights and Indigenous Peoples’ rights, including to Free, Prior, and Informed Consent
		Starting now?	By 2030?							
No ²⁵	No ²⁶	No ²⁷	No ²⁸	No ²⁹	Insufficient scope 3 target ³⁰	No ³¹	No ³²	No ³³	Limited reference ³⁴	Policy lacks meaningful safeguards ³⁵



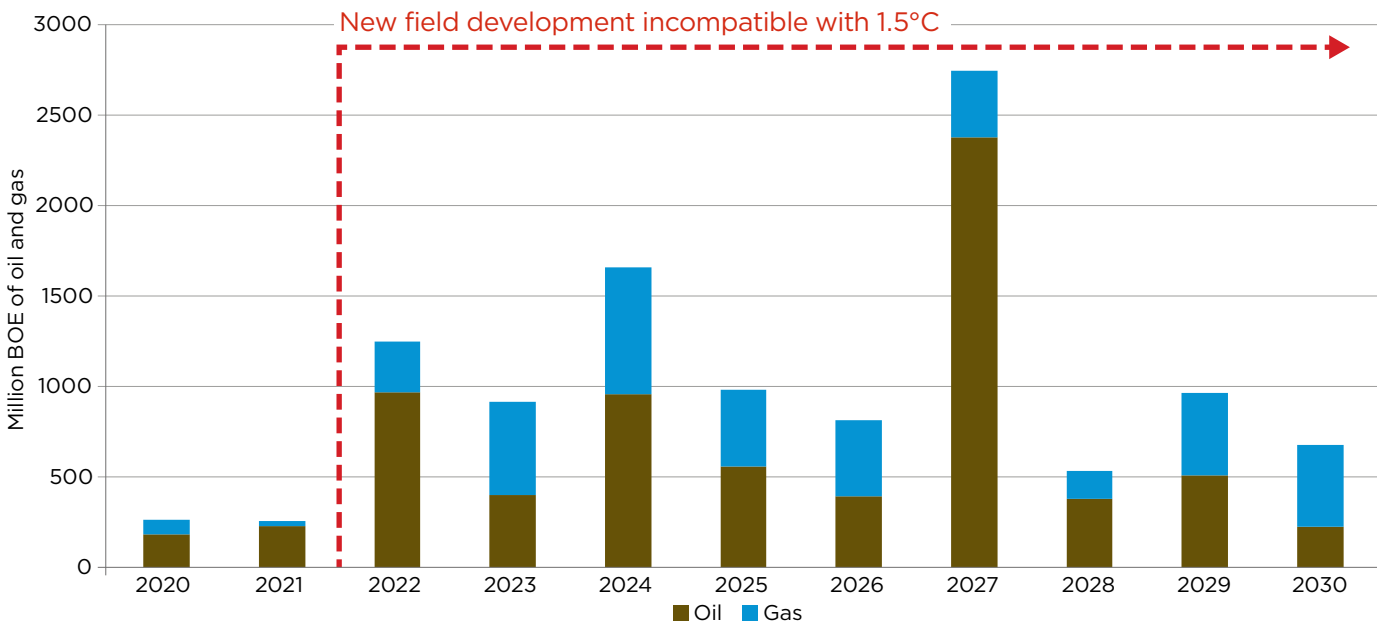
COLOR CODE FOR RATING COMPANY COMMITMENTS AGAINST CRITERIA

Grossly insufficient	Insufficient	Partially aligned	Close to being aligned	Fully aligned
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TotalEnergies Headquarters in Paris:



Figure 1: TotalEnergies' historical and projected approval of new oil and gas reserves for development by year, 2020 to 2030



Source: Oil Change International analysis of data from the Rystad Energy UCube (April 2023). See Methodology for definitions.

TOTALENERGIES CONTINUES TO INVEST IN NEW OIL AND GAS EXTRACTION

In 2022, TotalEnergies led all international oil and gas majors, and ranked third among all companies globally, in approving new oil and gas expansion³⁶ – sanctioning new fields containing more than 1.2 billion BOE of reserves (Figure 1). This was driven by TotalEnergies' sanctioning of massive, fiercely contested new extraction projects in Uganda designed to feed the East African Crude Oil Pipeline, or EACOP.³⁷

Rystad Energy data indicate that TotalEnergies is on track to continue a similar pace of expansion through 2030, during this make-or-break decade for climate action.³⁸ As shown in Figure 1, TotalEnergies has the potential to sanction around 900 million BOE of oil and gas reserves for development in 2023. The company is projected to approve an annual average of more than 1 billion BOE of oil and gas reserves for development between 2023 and 2030 (Figure 1). All of these reserves are incompatible with the 1.5°C limit.³⁹ Analysis published by

OCI in November 2022 found that the new extraction projects in TotalEnergies' approval pipeline from 2023 through 2025 alone could cumulatively cause over 1,600 MtCO₂ of new climate pollution over the projects' lifetimes, if their reserves are fully extracted and burned.⁴⁰

TotalEnergies plans to increase its overall oil and gas production by 2 percent in 2023, driven by new projects coming online in Oman, Brazil, and Azerbaijan.⁴¹ The company's March 2023 *Sustainability & Climate 2023 Progress Report* shows TotalEnergies plans to further increase total oil and gas production to 2025 and 2030.⁴² Liquefied natural gas (LNG) is key to TotalEnergies' plans to grow fossil fuel production – the company aims to increase its LNG production by 40 percent between 2021 and 2030, driven by new expansion projects in Qatar, Papua New Guinea, Mozambique, and the United States.⁴³ TotalEnergies' pursuit of new oil and gas to develop extends to countries with little or no existing extraction, such as Namibia, where the company claims to have discovered “a potential new golden block.”⁴⁴

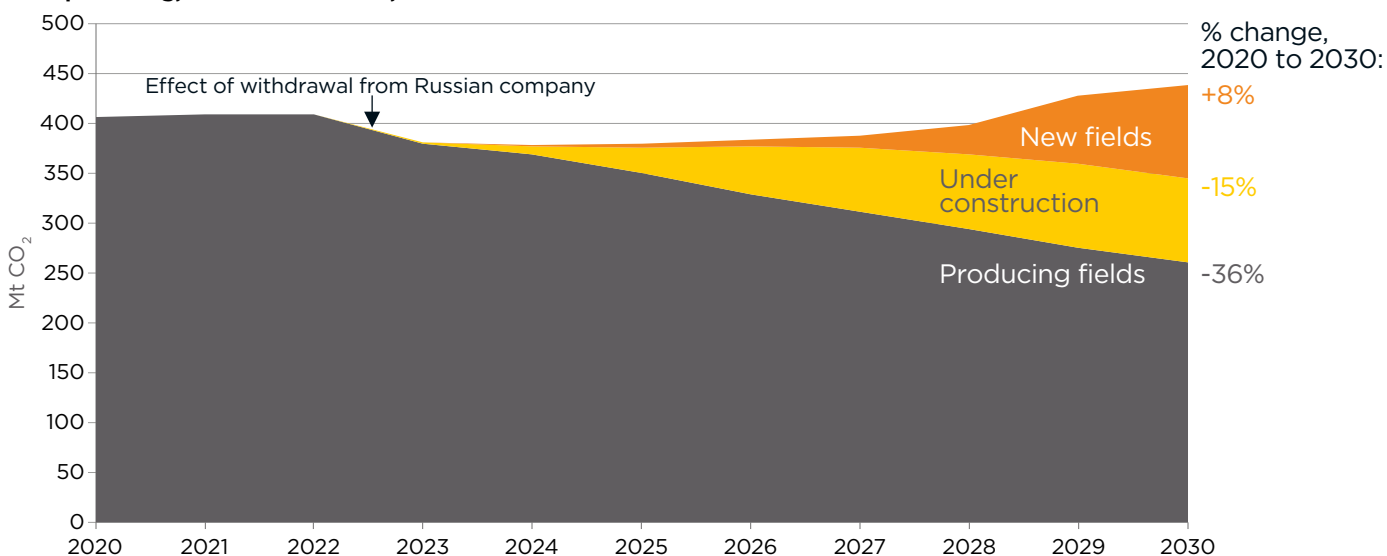
Figure 2 illustrates the impact of TotalEnergies' continued development of new oil and gas reserves on the projected annual carbon pollution caused by burning the oil and gas produced by the company.^e These projections are based on Rystad Energy modeling of the company's current assets as of April 2023 and thus do not directly account for future company plans and pledges.^f At the same time, Figure 2 clearly shows the disconnect between the imperative to reduce global oil and gas emissions by 2030 and TotalEnergies' stated plans to continue bringing new oil and gas fields into production. If TotalEnergies were to stop constructing or approving new oil and gas fields this year, the pollution caused by burning its gross oil and gas production is projected to fall by 36 percent by 2030, compared to 2020 levels. This would be a significant step towards aligning TotalEnergies' upstream production with a Paris-aligned pathway. However, if TotalEnergies continues to develop new fields, the end-use pollution caused by its gross upstream production has the potential to *increase* by 8 percent by 2030.⁴⁵ Such a trajectory would be incompatible with the imperative to reduce carbon pollution in half by 2030 to limit global warming to 1.5°C.⁴⁶

^e Emissions projections represent end-use carbon emissions (Scope 3) from burning TotalEnergies' projected gross annual oil and gas production under Rystad Energy's base oil price case (see Methodology for further detail on definitions and emissions factors applied). These estimates are not directly comparable to estimates or projections of company-wide emissions as reported to the U.S. Securities and Exchange Commission, given they reflect gross, rather than net saleable production (see Methodology). They also do not include all Scope 1 and 2 emissions from TotalEnergies' operations; and they do not include Scope 3 emissions from non-fossil fuel product sales. Due to differences in methodology, the projections in Figure 2 are not directly comparable to TotalEnergies' target to maintain Scope 3 emissions below 400 MtCO₂e in 2025 and 2030.

^f This data does not account for TotalEnergies' planned or potential divestments or acquisitions. TotalEnergies announced in April 2023 that it plans to divest its Canadian tar sands assets before the end of 2023 [link]. These producing assets account for around 5 percent of the annual emissions projected in Figure 2 from 2023 to 2030. Thus, if this divestment is executed as planned, and all else remains equal, the percent changes in 2030 emissions given in Figure 2 would decrease by around 5 percent.



Figure 2: Projected annual carbon (CO₂) pollution from burning TotalEnergies' gross upstream oil and gas production, 2020 to 2030, from producing, under construction, and new fields^{9,9}



Source: Oil Change International analysis of data from the Rystad Energy UCube (April 2023). See Methodology for detail on definitions and emissions factors applied.

CEO Pouyanné boasted in March 2023 that TotalEnergies was “the most profitable major in 2022.”⁴⁷ TotalEnergies announced record net profits of USD 36.2 billion – more than double its 2021 profits.⁴⁸ In contradiction to CEO Pouyanné’s words that “urgent action must be taken to decarbonize our economies,”⁴⁹ the company primarily used its record 2022 profits to prioritize increased fossil fuel investment and payouts to shareholders – not clean energy.

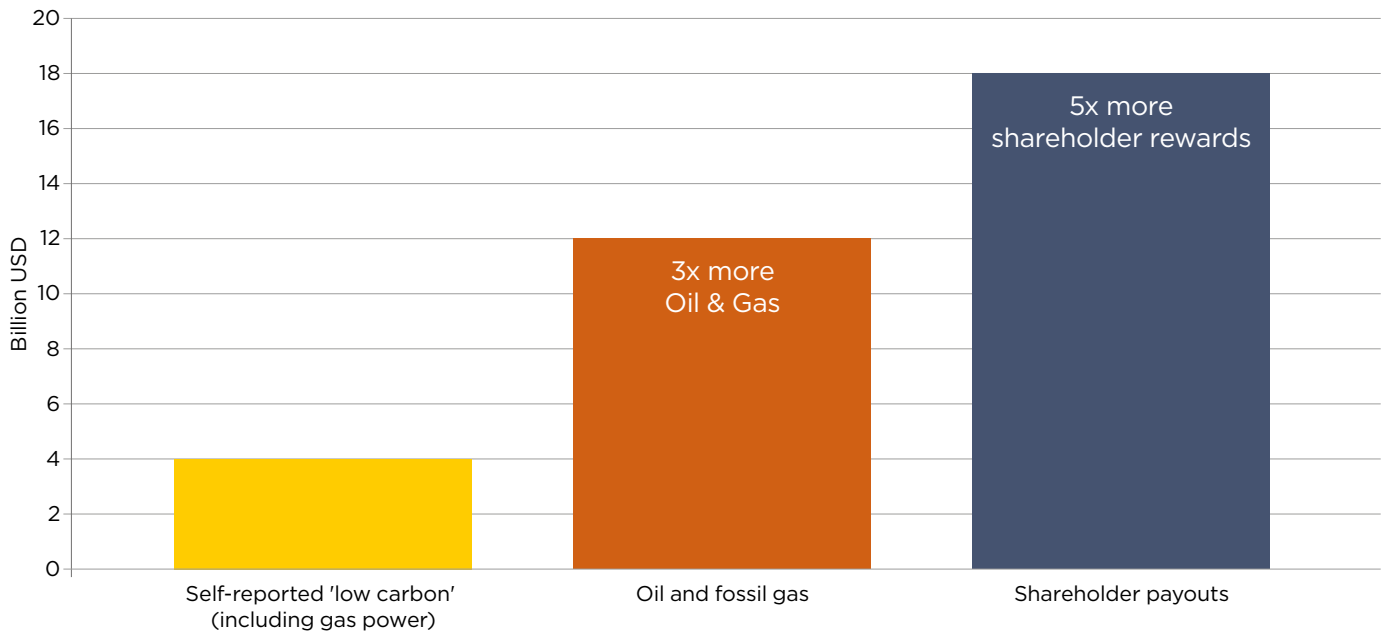
TotalEnergies boosted net capital expenditures (capex) to USD 16.3 billion in 2022, compared to USD 13.3 billion the previous year.⁵⁰ The company’s oil and gas exploration and production segment was the primary recipient of this year-on-year increase in capex: capex into exploration and production rose by more than 50 percent – from USD 6.5 billion in 2021 to USD 10 billion in 2022.⁵¹ By contrast, TotalEnergies’ net investment into its 2022 reporting segment including

renewable energy projects (“Integrated Gas, Renewables & Power”) fell by 11 percent year-on-year.⁵²

TotalEnergies’ reporting makes it extremely difficult if not impossible to determine precisely how much the company is investing in fossil fuels and other polluting activities relative to truly clean and renewable technologies like wind and solar. TotalEnergies’ own energy transition “performance indicators” show

⁹ TotalEnergies deconsolidated its 19.4 percent stake in the Russian company Novatek at the end of 2022, and will not account for this production in the company’s reporting as of 2023. Production from Novatek accounted for 0.3 Mboe/d of TotalEnergies’ production in 2022 (See TotalEnergies, “Fourth quarter and full-year 2022 results,” p. 15, [link]). This change primarily accounts for the projected drop in production and associated emissions between 2022 and 2023 seen in Figure 2.

Figure 3: TotalEnergies prioritizes fossil fuel investments and shareholder payouts with record 2022 profits



Source: Oil Change International analysis of data in TotalEnergies' 2022 Annual Report⁶⁰

three-quarters of the company's 2022 capex (USD 12 billion) went towards oil and gas, including LNG.⁵³ TotalEnergies claims that USD 4 billion of its 2022 capex went into "low-carbon energies" and, within that category, primarily "integrated power."⁵⁴ Yet, the company's definition of 'low carbon' includes renewable energy as well as fossil gas power plants, biofuels, fossil fuel carbon capture and storage (CCS), and hydrogen produced using fossil fuels.⁵⁵ Thus, whilst TotalEnergies' own reporting shows the company invested three times more in oil and gas than in 'low-carbon energies,' in 2022 (Figure 3), the company's relative investment in fossil fuels was almost certainly even greater.

In addition to increasing fossil fuel capex, TotalEnergies prioritized payouts to investors in 2022. The company reported spending USD 18.2 billion on dividends and share buy-backs in 2022⁵⁶ – or almost five times more than TotalEnergies claims to have invested in 'low-carbon energies.'

As of 2030, TotalEnergies plans to maintain capex in the range of USD 14 to 18 billion, and to continue investing two-thirds of that total amount into oil and gas.⁵⁷ Nearly half of this anticipated USD 9 to 12

billion of oil and gas capex would be used to continue developing new oil and gas fields,⁵⁸ despite the IEA's conclusion that investment in new fossil fuel supply should have ceased by 2022.⁵⁹

TOTALENERGIES' CLIMATE TARGETS ARE INCOMPLETE AND INSUFFICIENT

TotalEnergies' emissions reduction targets are complex and have changed repeatedly. TotalEnergies now has absolute targets for 2025, 2030, and 2050 that cover all scopes of company emissions, including from the end use of the oil and gas it sells.⁶¹ However, the targets themselves remain inadequate – particularly in the near to mid term. The company's *Annual Report* and *Sustainability & Climate Progress Report* published in 2023 refer repeatedly to holding "global warming to well below 2°C" rather than explicitly committing to align with a 1.5°C limit,⁶² despite the clear science that every fraction of additional warming matters for the survival of people and ecosystems.⁶³ TotalEnergies bases its strategy for this decade on price assumptions consistent with fossil fuel demand *exceeding* what is compatible with 1.5°C under the IEA's Net Zero Emissions (NZE) scenario.⁶⁴ Significantly,

in March 2023, TotalEnergies' CEO Patrick Pouyanné said during a call with investors that, "I don't consider the Company is responsible" for scope 3 emissions.⁶⁵

The reality is that TotalEnergies has no Paris-aligned plan to phase out fossil fuel production, nor any stated end date for fossil fuel production, whilst its emissions reduction pledges fall short of what is needed this decade to align with 1.5°C under IEA and IPCC scenarios.⁶⁶

By 2030, TotalEnergies aims to reduce its scope 1 plus 2 emissions by 40 percent below 2015 levels, to 25 to 30 MtCO₂e, and to keep scope 3 emissions below 400 MtCO₂e.⁶⁷ TotalEnergies reported scope 1 plus 2 emissions of 40 MtCO₂e and scope 3 emissions of 389 MtCO₂e in 2022, together totaling 429 MtCO₂e.⁶⁸ **Based on the company's own reporting, TotalEnergies can meet its 2030 emissions 'reduction' targets without further reducing annual company-wide emissions between 2022 and 2030:** If the company reduces scope 1 plus 2 emissions to 30 MtCO₂e, and keeps scope 3 emissions below 400 MtCO₂e, reported company-wide emissions could still be as high as 429 MtCO₂e in 2030.

TotalEnergies aims to reduce its total oil product sales by 2030.⁶⁹ However, over the same period, as TotalEnergies President of Strategy and Sustainability Helle Kristoffersen said in March 2023, “when oil is going down ... our gas sales are going up at the same time.”⁷⁰ Furthermore, the company intends to maintain or marginally grow its oil production even as it reduces oil sales.⁷¹

To meet its targets in 2030 and over the long term, TotalEnergies plans to rely heavily on the ‘net’ in ‘net zero’ through technological CCS and other “nature-based carbon sinks.”⁷² In describing its long-term climate ambition as “net zero emissions by 2050, together with society,”⁷³ TotalEnergies clarifies that it still expects to sell around 1 million BOE per day of oil and gas in 2050, generating around 110 MtCO₂e of gross emissions.⁷⁴ TotalEnergies plans to rely on 10 Mt per year of “nature-based” offsets and 50 to 100 Mt per year of some kind of technological “carbon storage service for customers” to “neutralize” the remaining emissions.⁷⁵

Even TotalEnergies’ 2030 targets could depend on “net” rather than real emissions reductions. TotalEnergies is targeting CCS capture capacity of 10 Mt or more per year by 2030.⁷⁶ In a March 2023 investor call, CEO Patrick Pouyanné directly linked CCS and nature-based offsets to the company’s 2030 scope 1 and 2 emissions targets, saying that he expected 5 to 10 Mt of the company’s additional reduction in scope 1 plus 2 emissions by 2030 to come from “storage.”⁷⁷

In the end, the minus 40% is taking into account as we said, 5 to 10 million of storage. Most of that will be at this point in time natural-based carbon sinks, let’s say 5 million is probably the range.

If 5 Mt of the reduction is from “carbon sinks,” that would mean one-third to one-half of the remaining scope 1 and 2 reductions TotalEnergies is targeting between 2022 and 2030 would not come from direct reductions in the company’s own emissions. If 10 Mt of the additional reduction is from “carbon sinks,” that proportion rises to two-thirds to 100 percent.^h

TotalEnergies points to external benchmarking initiatives, including the Transition Pathway Initiative (TPI), to suggest that its long-term target is consistent with 1.5°C.⁷⁸ However, the company’s statements omit key context about TPI’s analysis.⁷⁹ First, no government or company can claim that a ‘net zero by 2050’ target is 1.5°C-aligned without near term action to reduce fossil fuel pollution at a 1.5°C-aligned pace.⁸⁰ As the IPCC warns, if carbon pollution continues at business-as-usual rates in the 2020s, the world’s remaining carbon budget to stay below 1.5°C will be exhausted by or around 2030.⁸¹ In TPI’s “Carbon Performance” assessment, TotalEnergies exceeds a ‘Below 2 Degrees’ pathway through 2038 and exceeds a ‘1.5 Degrees’ pathway until 2047.⁸² TotalEnergies being in range of a 1.5°C pathway for three years out of the next three decades is hardly evidence of adequate ambition. Second, this TPI assessment is based on projections of TotalEnergies’ future emissions intensity – i.e., total emissions relative to total energy sales – not the company’s cumulative pollution over time.⁸³ TotalEnergies can meet carbon intensity reduction targets by increasing renewable energy sales relative to fossil fuel output, which provides no guarantee of fossil fuel production and emissions falling at a 1.5°C-aligned pace. For this reason, TPI itself cautions, “it is important to bear in mind that climate science shows temperature change is proportional to cumulative absolute CO₂ emissions.”⁸⁴

TotalEnergies strongly promotes the myth that fossil gas is a transition fuel.⁸⁵ TotalEnergies falsely claims that fossil gas, and hydrogen produced from it, are “allies of the energy transition,”⁸⁶ contrary to the evidence that fossil gas is dirty and expensive, and a hindrance to rapid decarbonization.⁸⁷ The company has expressly used this myth to justify not setting any 2030 target for its scope 3 emissions from gas and to justify its massive LNG expansion plans.⁸⁸ TotalEnergies claims its increased LNG production and sales are lowering global emissions by displacing coal.⁸⁹ But the company’s analysis ignores the fact that renewable energy can displace both coal and gas: solar and onshore wind are already the cheapest sources of electricity in markets covering 96% of global electricity generation.⁹⁰ Moreover, unless methane leakage is not kept at very low levels, replacing coal with LNG could result in increased greenhouse gas emissions.⁹¹ Misleadingly, in September 2020, the company proclaimed that it was selling “carbon neutral” LNG because of offsets from forest protection projects along the Zimbabwe-Mozambique border – which independent experts criticized as indefensible and misleading.⁹²

Although TotalEnergies has withdrawn from the American Petroleum Institute and from the Canadian Association of Petroleum Producers, the company remains a member of other industry associations that lobby against climate solutions.⁹³ Peer-reviewed research documents that TotalEnergies was aware as early as 1971 of potential “catastrophic consequences” from increasing levels of fossil fuel pollution, yet subsequently engaged in strategies that undermined and delayed climate action.^{94.i}

h As noted previously in this briefing, TotalEnergies aims to reduce combined scope 1 and 2 emissions to 25 to 30 MtCO₂e by 2030, compared to 40 MtCO₂e in 2022.

Thus, TotalEnergies must reduce these emissions by an additional 10 to 15 MtCO₂e by 2030.

i TotalEnergies released a statement responding to this study in 2021. That statement is available [here](#).

TOTALENERGIES HAS NOT ADEQUATELY PLANNED FOR A PEOPLE-CENTERED TRANSITION

TotalEnergies has engaged with the need for a just transition in a limited, partial way. In 2021, TotalEnergies announced a new, “Transforming With Our People” strategy, which it frames as a “just transition for [its] employees.”⁹⁵ However, this strategy did not align with any recognized definition of a just transition; did not focus on good jobs or multipartite dialogue, and leaned on human resource processes like staff surveys, “lunch and learn” events, and communications from senior management. In that context, it is positive that TotalEnergies’ *Sustainability & Climate 2023 Progress Report* expressly refers to:⁹⁶

...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.

However, the “concrete answers” that TotalEnergies provides to address these needs lack detail, contain no reference to multipartite dialogue (but only the more vague “social dialogue”), and continue to highlight human resources or health and safety policies.⁹⁷

TotalEnergies has a human rights guide booklet.⁹⁸ Notably, it affirms the principle of free, prior, and informed consent, and expressly states that consultation is not enough, though concerningly asserts that, “Within the industry, there is an ongoing debate on the definition of Consent.”⁹⁹ No consequences are set out in the document for what TotalEnergies will do if consent is withheld. There are very limited safeguarding processes set out. Despite adopting this set of guidelines in 2015, the company has faced several allegations of human rights violations, in particular related to the company’s massive projects in Mozambique¹⁰⁰ and Uganda.¹⁰¹

TotalEnergies is the lead shareholder in the USD 5 billion East African Crude Oil Pipeline from Uganda to Tanzania.¹⁰² Despite TotalEnergies’ proclaimed human rights commitments, the reality is that affected residents and civil society groups in Uganda and Tanzania have faced retaliation and repression from government, government security forces, and potentially private security companies for speaking out against the planned oil developments.¹⁰³ The hostile climate for human rights defenders and journalists in both countries has limited the ability of civil society to participate meaningfully in decisions and to hold project sponsors accountable for human rights, social, environmental, and economic impacts.¹⁰⁴ Though only officially sanctioned by TotalEnergies and partners in 2022, EACOP and associated extraction projects have already displaced people from their land without timely or adequate compensation, and exacerbated economic and food insecurity.^{105,j}

QUESTIONS TO ASK OIL AND GAS COMPANIES

In conclusion, TotalEnergies’ current climate plan is grossly insufficient compared to the rapid, deep cuts in oil and gas production and sales that need to happen within this decade – the next seven years – to align with the Paris limits. No oil and gas company can credibly claim to be aligned with the 1.5°C limit without taking immediate action to phase out fossil fuels. When evaluating oil and gas climate pledges, here are some critical questions that financiers and policymakers must ask:

- ❖ Does your emissions reduction commitment include all of the pollution related to your fossil fuel production and sales? If not, what proportion of the total is covered?
- ❖ What volume of oil and gas do you expect to produce in 2025? In 2030? Are you actually committing to begin winding it down this decade? Will you reduce your production by at least 3 percent per annum between now and 2030?

- ❖ Will you terminate all the projects in your current development pipeline that have not already received a final investment decision, to align with the IEA’s 1.5°C scenario? If not, what projects in your current development pipeline will you commit to terminating in order to meet these goals?
- ❖ How much money are you projecting to invest in carbon capture and storage, negative emissions technologies, or other fuels that still pollute, such as biomass, versus renewable technologies like wind and solar?
- ❖ How much carbon will your company have to capture through these technologies by 2050 to meet your target if you continue to extract fossil fuels?
- ❖ By what year will your company cease extracting oil and gas?

METHODOLOGY

An explanation of the ten criteria used in Table 1 to score oil and gas company climate plans and pledges is laid out in OCI’s 2022 report, *Big Oil Reality Check – Updated Assessment of Oil and Gas Company Climate Plans*, at: <https://priceofoil.org/2022/05/24/big-oil-reality-check-2022/>. See the section entitled, “Updating Our Baselines”.

We use the Rystad Energy UCube database for historical and projected data on TotalEnergies’ reserves approved for development per year (Figure 1) and oil and gas production (Figure 2). Data related to TotalEnergies’ production and emissions targets, reported emissions in 2022, and historical and projected capex is sourced directly from company reports, and cited accordingly.

The UCube is a commercial, asset-based database and model that contains data on reserves, production, economics, and valuation for every oil and gas field, resource discovery, and exploration licence globally. Rystad uses company reports, regulatory information, and

j In July 2022, TotalEnergies published a Human Rights Impact Assessment Report that it had commissioned on the related Tilenga project. That report identified that “interaction with Government Security Forces is a high-risk area,” amongst several others (including land resettlement, private security forces, and the rights of women and girls), and provided a number of specific recommendations to mitigate this risk. It made specific recommendations on each of these, but only limited actions appear to have been taken to partially address these recommendations: Eco & Partner Consult Limited, *Tilenga Project: Human Rights Impact Assessment Report*, January 2022, https://corporate.totalenergies.ug/system/files/atoms/files/tilenga_hria_-_full_report_0.pdf.

modelling to project the volumes of oil and gas that will be commercially viable to extract under a given price assumption. The UCube database is updated monthly. The projections used in this analysis are current to the April 2023 UCube version and Rystad's base Brent oil price case as of April 2023. This base price case sees oil prices steadily falling in the 2020s (from USD 90 per barrel (bbl) in 2023 to below USD 40/bbl by 2030), averaging around USD 50/bbl in the 2030s, and then flattening at USD 67/bbl to 2050 (real \$2023). All production and reserves projections are best estimates based on modeling of the current economics, technology, and geology of company assets. Projections are sensitive to changes in those factors and/or shifts in government or company policies and investment decisions (e.g., if TotalEnergies decided to forego investment in new fields after 2023).

In Figure 1, volumes of oil and gas reserves approved per year reflect TotalEnergies' historical (for 2020-2022) or current (for 2023-2030) ownership share in oil and gas assets approved for development or projected to be approved for development in the given year. Oil volumes include crude oil, condensate, and natural gas liquids (NGLs).

In Figure 2, calculations of the annual CO₂ emissions that would result from burning TotalEnergies's oil and gas production are by Oil Change International. We apply CO₂ emissions factors to historical and projected annual production volumes taken from the Rystad UCube. We apply CO₂ emissions factors of 0.421 tCO₂/bbl of oil and condensate, 0.235 tCO₂/bbl of natural gas liquids, and 54.7 tCO₂/Mmcf of gas. These emissions factors are derived from the IPCC.¹⁰⁶ We estimate future emissions from producing vs under construction vs new fields according to the current lifecycle of TotalEnergies' assets in the April 2023 UCube, and Rystad's modelling of future production from each category of asset. Future projections are based on Rystad Energy data on TotalEnergies' asset base as of April 2023 and, therefore, do not account for planned or potential divestments or acquisitions that are not yet executed, including TotalEnergies' planned divestment of Canadian tar sands assets by the end of 2023 (see footnote f). Producing fields are those actively producing oil and/or gas. Under construction fields are those for which a final investment decision (FID) has been made, but production has not yet started. New fields are those which are licenced but where no FID has yet been made. Regarding production represented in

Figure 2 that is projected to come from new fields starting up between 2023 and 2030, 99.8 percent is from already discovered resources, including 76 percent from assets currently in the field evaluation or appraisal stages (e.g., the post-discovery stages that precede a FID).

The reserves and production data extracted from the Rystad UCube represent gross resource and production volumes from TotalEnergies' current asset base. Gross production includes volumes owed to governments in the form of royalties or through production sharing agreements. Because of this, gross estimates are not directly comparable to and exceed TotalEnergies' own production and emissions reporting under U.S. Securities and Exchange Commission guidelines. Companies are only required to report bookable net production. We consider gross production volumes as the most accurate basis for estimating the carbon pollution associated with a company's oil and gas extraction. Production volumes above net bookable or saleable production do not result in a direct profit for the producing company (hence their exclusion from financial reporting guidelines). However, those gross volumes are directly tied to the producing company's investment stake in extraction assets.

TOTALENERGIES' REACTION

OCI provided an advance copy of this briefing to TotalEnergies for comment before publication. In the company's response of May 24, 2023, TotalEnergies expressed its "general disagreement with a one-way, systematically negative analysis which leads to a gross mischaracterization of our strategy" and said it "strongly disagrees with the methodology and the figures mentioned by OCI."

TotalEnergies added that it "believes that new oil projects are needed to meet continued strong demand, maintain prices at an acceptable level and create the conditions for a 'just' transition that gives people time to change their energy consumption."

TotalEnergies' full reaction to OCI's briefing is available at <https://priceofoil.org/big-oil-reality-check-2023>.

Oil Spill Protest at Total in Paris to Protect the Amazon Reef



ENDNOTES

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Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the ongoing transition to clean energy.

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