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BIG OIL REALITY CHECK

UPDATED ASSESSMENT OF OIL AND GAS
COMPANY CLIMATE PLANS



OILCHANGE
INTERNATIONAL

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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 coming transition towards clean energy.

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THIS BRIEFING IS RELEASED IN COLLABORATION WITH:



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EXECUTIVE SUMMARY

Never before has the case for keeping oil, fossil gas, and coal in the ground been stronger.

The August 2021 Working Group I report of the Intergovernmental Panel on Climate Change's (IPCC) *Sixth Assessment Report* highlights the critical importance of stopping global heating below 1.5 degrees Celsius (°C). Also in 2021, the International Energy Agency (IEA) concluded that there is no room for new fossil fuel expansion beyond fields and mines already under development in its first-ever full 1.5°C-aligned scenario. Then, in March 2022, researchers at the Tyndall Centre found that in order to preserve even a 50:50 chance of keeping warming below 1.5°C, we need "immediate and deep cuts in the production of all fossil fuels," with oil and gas production ending in all nations by no later than 2050, and in the wealthiest nations by 2034.

Since we released the original *Big Oil Reality Check* in September 2020, big oil and gas companies have continued to announce new climate pledges and plans - but these have remained grossly insufficient compared to the bare minimum required for limiting warming to 1.5°C.

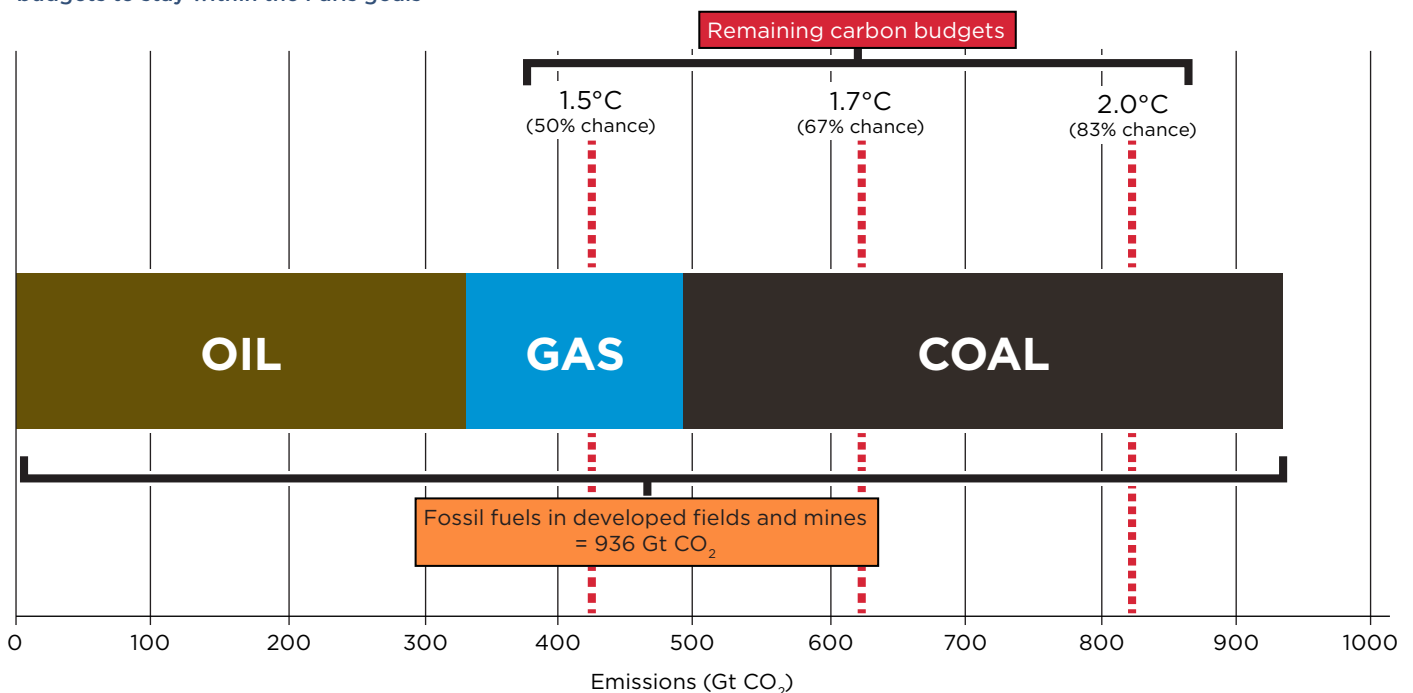
Oil and gas money has also partly fueled Russia's war machine. Responding to public pressure, many oil companies have scrambled to disentangle themselves from holdings and operations in Russia, while others have retained ties to the country. These companies should not be congratulated for extracting every last dollar of revenue that they can from Russia, then exiting at the last possible moment. This is not a managed decline in production based on science and equity, but a crisis response - with an enormous human cost.

In this context, this analysis updates the 10 minimum criteria offered in *Big Oil Reality Check* for assessing whether oil and gas companies' climate change promises and strategies could align with the Paris Agreement, and then assesses the current claims of eight of the largest integrated U.S. and European oil and gas companies: BP, Chevron, Eni, Equinor, ExxonMobil, Repsol, Shell, and TotalEnergies (formerly Total).

Past Oil Change International research has shown that the fossil fuel industry has already invested in developing more oil, gas, and coal than the world can afford to burn, as shown in Figure ES-1.

Despite this and despite the IEA's clear conclusion that there is no room for new oil and gas production beyond projects already under development, big oil and gas companies are continuing to search for new fields and continuing

Figure ES-1: CO₂ emissions 'committed' by developed oil, gas, and coal reserves, compared to remaining carbon budgets to stay within the Paris goals



Sources: Oil Change International analysis based on data from Rystad Energy, Trout et al. 2022, IPCC, and Global Carbon Project.¹ Remaining carbon budgets shown are as of the start of 2022.

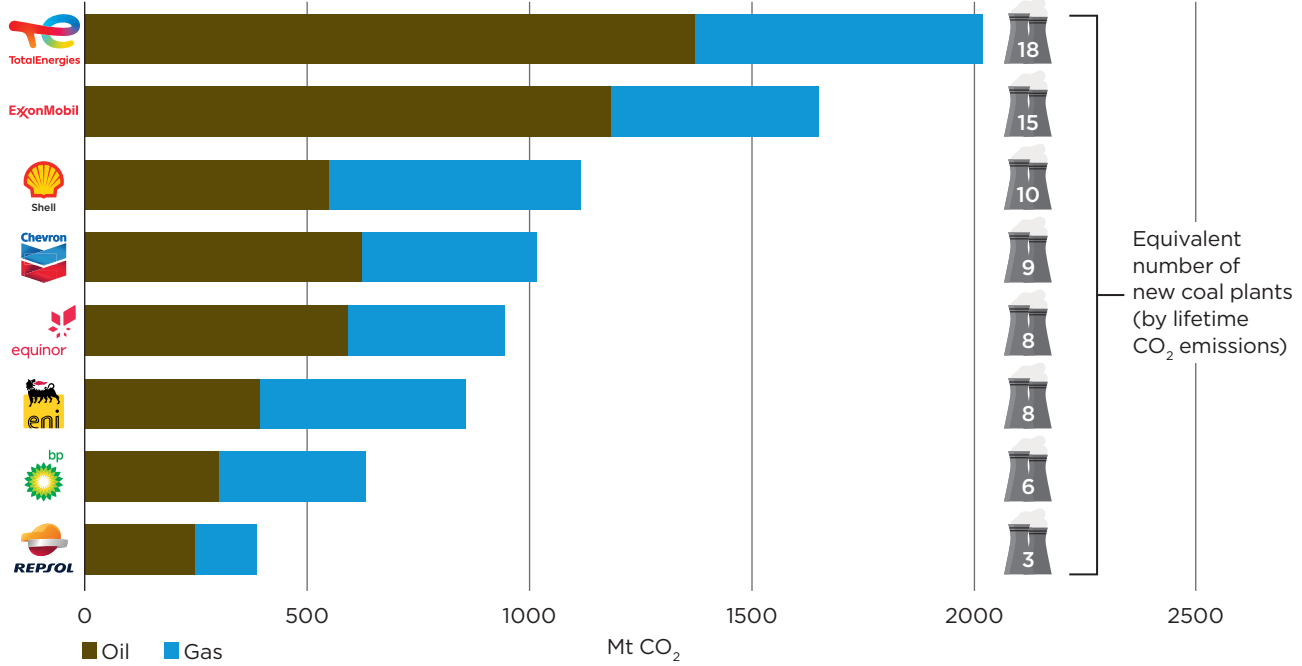
to put forward new projects for investment. These eight companies alone are involved in over 200 new projects expected to be approved for development from 2022 to 2025. The oil and gas production enabled by these new final investment decisions over

this period could cause an additional 8.6 gigatonnes (Gt) of carbon pollution – equivalent to more than one quarter of the world’s total energy sector emissions in 2020, and equivalent to the lifetime emissions of 77 new coal power plants.

Our analysis shows that all eight of these companies’ climate pledges and plans are **grossly insufficient**. Chevron and ExxonMobil are assessed as **grossly insufficient on all criteria**.

The criteria and ratings are shown in Table ES-1.








Figure ES-2: Cumulative CO₂ emissions that would result from big oil and gas companies’ anticipated final investment decisions from 2022 to 2025



Sources: Oil Change International analysis using data from Rystad Energy, U.S. Environmental Protection Agency, IPCC²



Table ES-1: Applying the criteria to assess oil and gas majors' 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?							
	Only in new countries	No	No	<30% drop by 2030, forecast not pledged	No	Partially intensity-only, unresolved Scope 3 loopholes ^a	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	No	No	No	No	No	No
	No	No	No	Plateau by 2025, decline only for oil	No	Yes	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
ExxonMobil	No	No	No	No	No	No	No	No	No	No	No
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
	No	No	Drop forecast, but not pledged	Drop forecast, but not pledged	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards

COLOR CODE FOR RATING COMPANY COMMITMENTS AGAINST CRITERIA

Grossly insufficient	Insufficient	Partially aligned	Close to being aligned	Fully aligned
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Ultimately, no major oil and gas company considered in this analysis comes anywhere close to the bare minimum for alignment with the Paris Agreement. The companies that have

collectively done the most to fuel the climate crisis cannot be trusted to confront it meaningfully. Both public and private-sector decision-makers must take action both to destroy the

demand for fossil fuels and to choke off their production. Governments and the financial sector each have key roles to play.

^a A carbon-intensity target is a target that only aims to reduce some percentage of emissions per unit of product sold, rather than the absolute total of a company's carbon pollution. Scope 3 emissions are a company's supply-chain emissions, notably including emissions from burning oil and gas produced or sold by the company to individual consumers or otherwise. For more detail, see Box 5.

BOX ES-1: QUESTIONS TO ASK OIL AND GAS COMPANIES

When evaluating oil and gas climate pledges, here are some critical questions to ask:

- What proportion of your current fossil fuel production is covered by your commitment, accounting for all extraction in which you have a financial stake?
- 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 3% to 4% 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?
- What just transition plan have you developed in dialogue with workers, affected communities, and governments to transition workers to high-quality jobs in other sectors?
- What policies do you have in place to safeguard human rights and Indigenous Peoples' rights? What policies are in place to obtain Free, Prior, and Informed Consent from Indigenous Peoples before operating on their land?



INTRODUCTION

The case for keeping oil, fossil gas, and coal in the ground and transitioning to clean, renewable energy has never been stronger. It is unsurprising, therefore, that big oil and gas companies have issued many new climate pledges, promises, and plans over the last 18 months, attempting to portray their business models as part of the energy transition.

While much has changed in global energy markets since we released the original *Big Oil Reality Check* in September 2020,³ one thing has remained constant: the companies that have done the most to cause the climate crisis cannot be trusted when they claim to be part of solving it.

In 2020, the global oil market spun into an unmanaged decline, driven by three converging factors: unparalleled demand destruction in the first year of the COVID-19 pandemic, an oil price shock, and the long-term structural decline driven by the transition to renewable energy.⁴

In that context, the first edition of *Big Oil Reality Check* warned that those events provided no guarantee that fossil fuel production would stay in long-term decline, that this decline would be at the pace required to align with limiting warming to 1.5 degrees Celsius (°C), or that this decline would be an equitable one – unless governments intervened to manage the decline in production and to implement just transition measures.

This warning proved accurate. In December 2021, the International Energy Agency (IEA) forecast that global oil demand would return to pre-pandemic levels in 2022, reaching 99.5 million barrels of oil equivalent per day (mboe/d).⁵ Whereas oil prices in March 2020 fell rapidly, oil prices in March



Kris Krug (CC BY-NC-SA 2.0)

2022 spiked to record highs as countries responded to the Russian invasion of Ukraine.⁶ Soaring oil and gas prices are delivering record profits for big oil and gas companies. Despite calls to “build back better” during the pandemic recovery phase, some 40 percent of the public money that governments worldwide injected into the energy sector in their COVID-19 recovery packages went to fossil fuels.⁷ Private finance also continues to fund oil, gas, and coal expansion; since the Paris Agreement was adopted, banks have funneled USD 4.6 trillion to fossil fuels, including USD 742 billion in 2021 alone.⁸

Yet, the case for ending oil and gas expansion and ensuring a rapid managed decline of the industry has never been clearer or more urgent. The Working Group I report of the

Intergovernmental Panel on Climate Change’s (IPCC) *Sixth Assessment Report* in August 2021 warned that there will be increasing incidence of unprecedented extreme climate events even at a warming of 1.5°C, the limit set under the Paris Agreement, and that these extremes will get worse for every additional fraction of a degree of warming.⁹

While historically big oil and gas companies have relied on IEA scenarios to justify their expansion plans, the IEA concluded that there is no room for new fossil fuel expansion beyond fields and mines already under development in their first ever full 1.5°C-aligned scenario, included in the 2021 *World Energy Outlook*.¹⁰ A March 2022 report by researchers at the Tyndall Centre concluded that, in order to preserve

even a 50:50 chance at limiting warming to 1.5°C, we need “immediate and deep cuts in the production of all fossil fuels” with oil and gas production ending in all nations by no later than 2050, and in the wealthiest nations by 2034.¹¹

Further, Russia's February 2022 invasion of Ukraine provides a clear example of the human cost of fossil fuels; oil and gas revenues from U.S. and European oil majors are responsible for as much as USD 95 billion for Putin's war chest since the invasion of Crimea in 2014.¹² Oil companies should not be congratulated for extracting every last drop of profit that they can from Russian oil and gas.

The phase-out of oil and gas production must occur so rapidly now in part because oil and gas companies have spent decades blocking and delaying policy solutions, while lobbying for public money to prop up their polluting business practices.

Consequently, it remains important to evaluate oil and gas companies' climate pledges and plans critically. This analysis updates the ten-point framework for assessing whether oil and gas companies' climate change promises and strategies meet the minimum criteria to align with the Paris Agreement that we first published in *Big Oil Reality Check* in 2020. It then assesses the current claims of eight of the largest integrated U.S. and European oil and gas companies: BP, Chevron, Eni, Equinor, ExxonMobil, Repsol, Shell, and TotalEnergies (formerly Total). These are the same companies that we assessed in the original *Big Oil Reality Check*.

NOTES ON METHODOLOGY

Largely as in the original *Big Oil Reality Check*, in this report we:

- Look primarily at the total oil and gas these companies are directly or indirectly extracting from the

ground, and the associated carbon pollution, as a consistent baseline and the primary metric of their climate responsibility. However, many integrated oil and gas companies sell more oil than they directly produce. Hence, we have clarified in our integrity criteria that company targets should cover absolute emissions from both production and sales; and

- Use the Rystad Energy UCube database as our primary source for historical and projected data on oil and gas companies' production. These forward-looking projections reflect companies' current asset base (not accounting for pledged changes) and, therefore, can show potential disconnect between companies' current investments and what is implied by their climate pledges. Where Rystad projections are used, they are based on Rystad's long-term base oil price scenario of USD 50/bbl (real \$2022, as of March 2022).



UPDATING OUR BASELINE

THE BIG PICTURE AND THE URGENT NEED FOR A RAPID MANAGED DECLINE

In 2015, governments worldwide committed in the Paris Agreement to pursue efforts to keep the global average temperature increase below 1.5°C and to hold it well below 2°C, compared to pre-industrial levels.¹³ There is no room for new oil and gas expansion if we are to achieve the Paris goals – rather, limiting warming to 1.5°C ultimately requires a rapid managed decline in oil, gas, and coal production, with some existing fields and mines closed early.

In May 2021, the IEA published its first-ever 1.5°C-aligned scenario, called the Net Zero Emissions scenario, finding no role for new oil and gas expansion or finance beyond projects already committed in 2021.¹⁴ The IEA restated this finding in its *World Energy Outlook 2021*.¹⁵ This is particularly significant, because governments and investors frequently look to the annual World Energy Outlook when making energy policy and investment decisions – and also because the IEA was created after the 1973 oil shocks with an express purpose of securing access to oil for member nations of the Organisation for Economic Co-operation and Development.¹⁶

Though some have attempted to avoid this conclusion by downplaying the applicability of the Net Zero Emissions scenario,¹⁷ the IEA's conclusion in fact flows from the arithmetic of 1.5°C. Oil and gas fields typically produce for 15 to 20 years, and production rates decline over time as extraction reduces reservoir pressures. This decline is generally around four percent annually for conventional fields.^b Limiting



warming to 1.5°C requires a very similar rate of decline. In the IEA's 1.5°C scenario, oil consumption falls by 3.5 percent per year and gas consumption falls by 2.6 percent per year on average between 2025 and 2030, which then accelerates to declines of 5.4 percent (oil) and 5.3 percent (gas) per year between 2030 and 2040.¹⁸ The *Production Gap Report* finds that in IPCC 1.5°C scenarios, global oil production declines by a median of four percent and gas production declines by a median of three percent each year between 2020 and 2030.¹⁹ To preserve alignment with 1.5°C, there is no room for new oil and gas production beyond existing fields.²⁰

Importantly, scenarios that do not rely on unrealistic and risky assumptions about extraordinary growth in carbon capture and storage (CCS) or carbon dioxide removal (CDR) in the near future require a faster rate of decline, and thus not only an end to oil, gas, and coal expansion but an accelerated phase-out of existing production. The IEA's 1.5°C scenario depends on less carbon dioxide removal than some other scenarios, but still includes a 4,000 percent increase in energy sector CCS by 2030.²¹

If anything, the IEA's conclusion is a conservative one. Oil Change International research shows that the fossil fuel industry has already invested in developing *more* oil, gas, and coal than the world can afford to burn under the Paris Agreement. By comparing the CO₂ emissions from burning only the fossil fuels in already-operating or under-construction fields and mines to remaining carbon budgets aligned with the Paris temperature limits, we find (Figure 1):^c

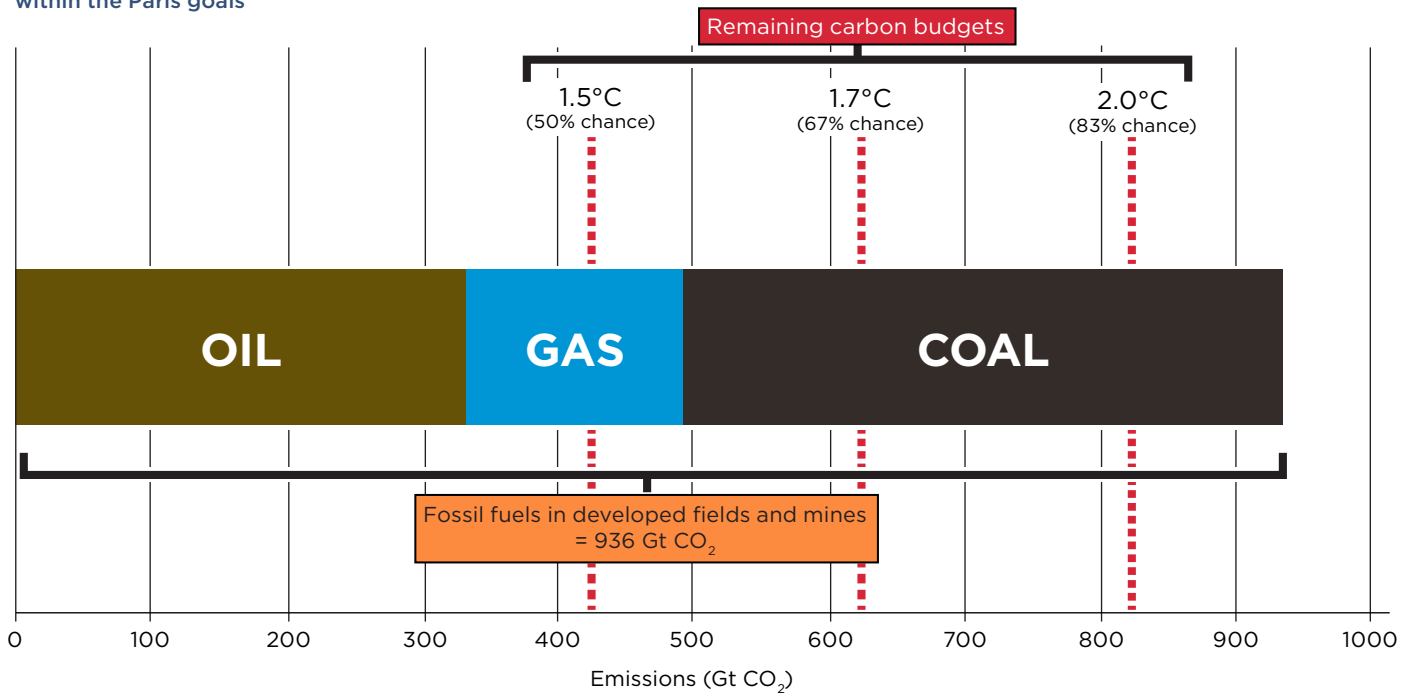
- Burning just the oil, gas, and coal in existing fields and mines would far exceed the carbon budget for a 50 percent chance of staying below 1.5°C warming, and risk pushing the world beyond 2°C warming; and
- Even if global coal use ended overnight, already-developed oil and gas reserves would still push the world beyond 1.5°C warming.

Again, the implication is that ceasing new development is not enough – some oil and gas fields that are already approved and operating must be decommissioned early.

^b The Rystad UCube projects average annual production declines of 4.4 percent from existing oil fields and 4.3 percent from existing gas fields between 2025 and 2030.

^c This analysis does not include emissions from land use change or cement. Previous versions of this analysis included optimistic estimates of emissions reductions from those sectors. Factoring those in would mean that burning the fossil fuels in existing developed reserves would exceed our 1.5°C or 2°C carbon budgets by even more.²²

Figure 1: CO₂ emissions committed by developed oil, gas, and coal reserves, compared to remaining carbon budgets to stay within the Paris goals



Sources: Oil Change International analysis based on data from Rystad Energy, Trout et al. 2022, IPCC, IEA, and Global Carbon Project.²³ Remaining carbon budgets shown are as of the start of 2022.

The developed reserves shown are in already-operating or under-construction projects, meaning the infrastructure has already been built, capital invested, and workers employed. This creates “carbon lock-in,” and means that it is more difficult to limit extraction from these projects compared to those not yet built.²⁴ Closing an existing field or mine early is generally more challenging, both politically and economically, than preventing the development of a new field or mine.

Equity arguments must also be considered. Article 2(2) of the Paris Agreement reads:²⁵ “This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”

This requires the wealthiest nations with economies less dependent on oil and gas revenues to lead, closing fields earlier and reaching earlier phase-out dates.²⁶ The Tyndall Centre report argues that the wealthiest countries with the highest capacity to reduce oil and gas production (which it categorizes as “Group 1” nations) should phase out production by no later than 2034 for a 50:50 chance of limiting warming to 1.5°C.²⁷ This country-by-country equity analysis is not

necessarily directly applicable to oil and gas companies. More analysis is needed. For example, there are questions about whether a company’s decline rate and phase-out date should be calculated based on the countries in which its production occurs, or based on the location of the company’s headquarters. All the companies considered in this

analysis are based in wealthy nations with diverse economies, categorized as Group 1 nations by the Tyndall Centre study. Overall, as shown in Table 1, more than half these companies’ production occurs in Group 1 nations, but the proportion of production in these nations varies significantly from company to company.

Table 1: Proportion of companies’ 2021 production taking place in wealthy countries with low oil and gas dependence

Company	Percentage
BP	35%
Chevron	55%
Eni	13%
Equinor	86%
ExxonMobil	75%
Repsol	35%
Shell	44%
TotalEnergies	51%
Total	52%

Source: Oil Change International calculation using data from Rystad Energy UCube (March 2022) and Calverley and Anderson (2022).²⁸

BOX 1: EQUITY AND CLIMATE JUSTICE IN THE PHASE-OUT OF FOSSIL FUEL PRODUCTION

Ensuring a just and sustainable energy transition is critical as governments begin to plan to phase out fossil fuel production to limit global warming to 1.5°C – and companies like those analyzed here must also be challenged on equity in their climate plans.

A 2020 study in the journal *Climate Policy* by researchers Greg Muttitt and Sivan Kartha presents a framework for equitably curbing fossil fuel extraction, proposing five principles that should be applied in order to manage a just and rapid decline:²⁹

1. **Phase down global extraction at a pace consistent with 1.5°C**, using both economic and regulatory approaches, including extraction taxes and licensing moratoria.
2. **Enable a just transition for workers and communities**, including through sound investments in low emission sectors, social protection for fossil-fuel workers, and local economic diversification.
3. **Curb extraction consistent with environmental justice**, prioritizing ending extraction where communities disproportionately experience the harms of extraction (such as pollution), not the benefits.

4. **Reduce extraction fastest where social costs of transition are least**, meaning that wealthier, diversified economies must phase down production more quickly, as they can better mitigate and absorb the adverse impacts on workers and communities.^{d 30}

5. **Share transition costs fairly**, so that the largest burden is borne by those with the greatest ability to pay, meaning that wealthy countries – which have already benefited the most from past extraction – bear the most cost.

Major oil and gas companies have been consistent obstacles to climate justice. These companies and their investors have profited from fossil fuel extraction on the backs of human rights abuses, the violation of Indigenous Peoples' rights, and pollution of local communities, while deliberately blocking climate solutions. Notably, Muttitt and Kartha suggest that an equitable transition "may require removing corporate protections in order to apply protections to the workers, communities and societies that do not currently enjoy them."³¹

UPDATED BASELINES FOR OIL AND GAS COMPANY CLIMATE COMMITMENTS

In the original Big Oil Reality Check in 2020, we proposed 10 minimum criteria that must be met before a company's climate pledges and plans can even be eligible for consistency with the Paris Agreement goal of limiting warming to 1.5°C. Even if a company's climate commitment met all 10 criteria, the commitment would not necessarily be consistent with limiting warming to 1.5°C or well below 2°C

We have revised these criteria slightly, particularly to take into account analysis published since 2020 and feedback received after we published Big Oil Reality Check. These changes are relatively small, but significant.

The original criteria covered ambition, integrity, and transition planning. The revised criteria cover ambition, integrity, and **people-centered transitions**. This change reflects both the reality that limiting warming to 1.5°C is only one element of the Paris Agreement, and the

critical importance of the transition to clean energy being done in a way that upholds human rights and the rights of Indigenous Peoples.

This section sets out the 10 criteria across those three categories, and then explains some elements that are not factored into this analysis.^e

^d The recent Tyndall Centre report on phase-out date for fossil fuel production provides a detailed framework for assessing and applying this principle of equity.³⁰

^e For a full explanation and justification of this approach and the criteria used, please refer to the original Big Oil Reality Check.

Table 2: Ten criteria for assessing oil and gas companies' climate pledges and plans

Category	Criteria (<i>Revised criteria italicized</i>)	Explanation	
Ambition	Stop exploration	To be rated as “Fully aligned,” a company must end exploration for new oil and gas, given that already-developed reserves exceed our carbon budget for 1.5°C or well-below 2°C, and an even greater quantity of reserves is already discovered but not yet developed.	
	Stop approving new extraction projects	To be rated as “Fully aligned,” a company must immediately stop approving new projects that will add to the world’s already excessive stock of developed reserves.	
	Decline oil and gas production	<i>Starting now?</i>	To be rated as “Fully aligned,” a company must commit to putting their fossil fuel production into structural decline, reducing it year-over-year from 2022 onwards, on a trajectory aligned with 1.5°C.
		<i>By 2030?</i>	To be able to limit warming to 1.5°C, it is critical that we halve carbon emissions globally by 2030. The only reliable way to do this is to cut fossil fuel production – starting immediately. We have split this into two sub-criteria to distinguish between companies pledging to cut production now and companies that may commit to cutting production by the end of this decade but have no pledge to reduce production in the interim.
	<i>Set explicit end date for oil and gas extraction and a long-term production phase-out plan, aligned with 1.5°C</i>	To be rated as “Fully aligned,” a company must have an explicit end date for oil and gas production that is no later than 2050, and a credible, potentially 1.5°C-aligned plan to get there. Ultimately, we need to zero out global fossil fuel emissions, which means phasing out fossil fuel production. For an equitable phase-out, some oil and gas companies will need to phase out production earlier, but this analysis uses 2050, because it is the last date for any country phase-out, suggested in the Tyndall Centre report’s analysis. ³³	
Integrity	<i>Set absolute target(s) to reduce all its emissions, including value chain emissions</i>	To be rated as “Close to being aligned,” a company must have a credible, Paris-aligned absolute emissions reduction-target that covers its complete value chain, including all oil and gas extracted (including from fields or mines that they own equity in but do not operate) and all oil and gas sold. To be rated as “Fully aligned” a company must also have credible, Paris-aligned interim absolute emissions reduction-targets in the near and medium term, not only by 2050, and should include gross emissions targets, not just net targets.	
	Do not rely on carbon sequestration or offsets	To be rated as “Fully aligned,” a company must not depend on any significant carbon dioxide capture or removal, future net negative emissions, or ongoing offsetting. Any use of such measures should be reserved for residual emissions in the hardest-to-abate sectors, which do not include fossil fuel companies.	
	Be honest about fossil gas as high carbon	To be rated as “Fully aligned,” a company must acknowledge that fossil gas and gas-based hydrogen are high carbon and are not transition or “bridge” fuels, given zero-carbon, renewable alternatives.	
	End lobbying and ads that obstruct climate solutions	To be rated as “Fully aligned,” a company must commit to not obscure or obstruct climate policy, either directly or indirectly, through industry associations. One key indicator used in this assessment is whether the company has withdrawn from industry associations that oppose climate policy.	
	People-centered transitions	Commit plans and funding to support workers' transitions into new sectors	To be rated as “Fully aligned,” a company must explicitly commit to entering into tripartite or multipartite dialogue with workers, governments, and other stakeholders (such as Indigenous Peoples and other affected communities) to develop robust just transition plans. These plans should be accountable to trade unions and local stakeholders and should guarantee safeguards to protect workers' livelihoods and help them transition to high-quality jobs in new sectors.
<i>Uphold human rights, including Indigenous Peoples' rights, including to Free, Prior, and Informed Consent</i>		To be rated as “Fully aligned,” a company must have policies in place to ensure that its operations comply with human rights and Indigenous Peoples' rights, and demonstrably be applying these policies to prevent any violations of these rights. The Paris Agreement expressly acknowledges these rights, alongside the rights of other groups of people. ³⁴	

BOX 2: FOSSIL GAS IS NOT A “BRIDGE” FUEL³⁵

- 1. Gas breaks the carbon budget:** As shown in Figure 1, the economically recoverable oil, gas, and coal in the world’s currently-producing and under-construction extraction projects would take the world far beyond safe climate limits. Further development of untapped gas reserves is inconsistent with the climate goals in the Paris Agreement.
- 2. Coal-to-gas switching doesn’t cut it:** Climate goals require the entire global energy sector to decarbonize by 2050. This means that both coal and gas must be phased out completely. Replacing coal plants with new gas plants will not cut emissions by nearly enough, even if methane leakage is kept to a minimum.
- 3. Low-cost renewables can displace coal and gas:** The dramatic and ongoing declines in cost for wind and solar disrupt the business model for gas in the power sector. Wind and solar will play an increasing role in replacing retiring fossil fuel capacity.
- 4. Gas is not essential for grid reliability:** While wind and solar require balancing to constantly meet electricity demand, gas is neither the only, nor the best, resource available for doing so. Battery storage is quickly becoming competitive with gas plants (known as “peakers”) designed for this purpose. Wind and solar plants coupled with battery storage are also becoming a competitive, “dispatchable” source of energy. Managing high levels of wind and solar on the grid requires optimizing a wide range of technologies and solutions, including battery storage, demand response, and transmission. There is no reason to favor gas as the primary solution.
- 5. New gas infrastructure locks in carbon pollution:** Multibillion-dollar gas infrastructure built today is designed to operate for decades to come. Given the barriers to closing down infrastructure ahead of its expected economic lifespan, it is critical to stop building new infrastructure whose full lifetime emissions will not fit within Paris-aligned carbon budgets.
- 6. Fossil gas has a human cost:** Fossil gas infrastructure and use has been associated with negative health impacts and other serious harms to people and communities. Building new fossil gas infrastructure will stand in the way of a just transition for workers and communities.



WHAT IS NOT INCLUDED

There are two additional matters frequently highlighted by oil and gas companies and commentators that are not included in this analysis, as neither is necessarily indicative of alignment with climate targets. Rather, both are factors that oil and gas companies can use to hide increasing carbon pollution.³⁶ These factors are:

1. *Investment in renewable energy*, which we have not considered for three reasons. First, a company can both increase its investment in renewable energy and increase its overall contribution to the climate crisis if that investment is not paired with cutting fossil fuel production.

Second, there are major risks associated with private companies that have been tied to human rights violations and corruption for decades having significant influence over the shift toward renewable energy. These risks particularly apply to the oil and gas companies that are most responsible for creating the climate crisis.³⁷ Third, the proportion of oil and gas companies' capital expenditure directed to renewable energy remains tiny when compared to continued exploration and production of oil and gas.³⁸

2. *Carbon intensity targets*, which we consider insufficient because they aim to cut carbon pollution only

relative to productivity or output, and do not guarantee overall reductions in emissions. If a company increases the volume of oil and gas production while reducing the emissions per barrel or cubic meter, the company can still increase absolute emissions.³⁹ No target that allows for an oil or gas company to increase its production or emissions can be Paris-aligned. Carbon intensity targets may in some cases be a useful supplement alongside absolute targets, but are not a substitute.

BOX 3: OIL AND GAS IN LIGHT OF RUSSIA'S INVASION OF UKRAINE

Russia's war machine is partly being fueled by oil and gas money. Eight U.S. and European oil majors — BP, Shell, Wintershall Dea, ExxonMobil, TotalEnergies, Equinor, OMV, and Trafigura — are together responsible for payments of over USD 95 billion to the Russian government via their stakes in Russian oil and gas projects and companies since the 2014 invasion of Crimea.⁴⁰ The 2014 invasion was widely condemned as a violation of international law and should have prompted these companies to reconsider their role in financing the Russian military.

BP is responsible for 80 percent of this total, due to its holding in Rosneft. As reported in BP's 2020 annual report, this holding accounts for 30 percent of BP's total 2020 oil and gas production.⁴¹ Though BP has announced that it will divest itself from its share of Rosneft, it is too early to tell what this means for the company's climate pledges and plans — and it is not clear whether that divestment has in fact occurred to date.⁴²

Responding to public pressure, many of these oil and gas companies have scrambled to disentangle themselves

from holdings and operations in Russia since the invasion of Ukraine in February 2022. These companies should not be congratulated for extracting every last dollar of revenue that they can from Russia, then exiting at the last possible moment. This is not a just transition. Instead of a managed decline in production based on science and equity, this is a short-term crisis response — with an enormous human cost.

Other companies assessed in this analysis continue to operate in Russia. For example, TotalEnergies has said that it will stop buying oil from Russia by the end of 2022 and avoid funding new projects there, but will maintain its minority interests in Russian oil and gas companies and projects.⁴³

At the same time, parts of the oil and gas industry and their enablers have cited Russia's invasion of Ukraine as grounds for expanding oil and gas production elsewhere, at odds with the IEA's 1.5°C-aligned scenario.⁴⁴









That one country's reckless decision to wage an unprovoked war can send oil and gas markets spiraling is yet another reason to speed up the transition to clean, renewable energy.

STILL FAILING: HOW THE OIL MAJORS' CLIMATE PLANS MEASURE UP

APPLYING THE FRAMEWORK

We have analyzed the climate pledges or sustainability plans of eight major oil and gas companies against these 10 criteria. The results are set out in Table 3.

Table 3: Applying the criteria to assess oil and gas majors' 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?								
	Only in new countries	No	No	<30% drop by 2030, forecast not pledged	No	Partially intensity-only, unresolved Scope 3 loopholes ^f	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	No	No	No	No	No	No
	No	No	No	Plateau by 2025, decline only for oil	No	Yes	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	No	No	No	No	No	No
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
	No	No	Drop forecast, but not pledged	Drop forecast, but not pledged	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards
	No	No	No	No	No	Partially intensity-only	No	No	No	No	Policy lacks meaningful safeguards

COLOR CODE FOR RATING COMPANY COMMITMENTS AGAINST CRITERIA

Grossly insufficient	Insufficient	Partially aligned	Close to being aligned	Fully aligned
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^f Scope 3 emissions are a company's supply chain emissions, notably including emissions from burning any oil and gas produced or sold by the company to individual consumers or otherwise. For more detail, see Box 5.

As this analysis shows, none of the oil and gas majors' commitments pass the baseline test to be considered serious climate plans. Though several companies have set new targets since the original *Big Oil Reality Check*, only five companies' commitments are even in partial alignment with the Paris Agreement on even one criteria: setting absolute targets that cover the oil and gas they produce and sell. While it is

a step forward that these companies' 2050 targets now include the emissions from their customers burning the oil and gas they sell, it is notable that all these targets are net targets, depending heavily on CCS and/or offsets and forest planting, rather than true absolute reduction targets. Further, nearly all those companies still rank grossly insufficient on all other criteria.

Meaningful near-term action is also lacking. Only three companies expect to drop their production by 2030, and not a single one of those companies anticipates production cuts that are even close to that needed for 1.5°C.

Despite the IEA's clear conclusions last year, no major oil and gas company has yet made a commitment to stop developing new fossil fuel projects.

Oil pollution in the Lago Agrio oil field in Ecuador.



BIG OIL AND GAS COMPANIES ON TRACK TO GROW PRODUCTION BY 2030

Though the imperative to reduce oil and gas production this decade is clear, existing assets and planned investments indicate that most of the oil and gas majors we have analyzed are on track to continue increasing their production this decade. Before accounting for pledged divestments from interests in Russia, only Shell was projected to produce less oil in 2030 than it did in 2021. Factoring in BP's pledged exit from Russian assets, the company is on track for a 22 percent decline in production over that

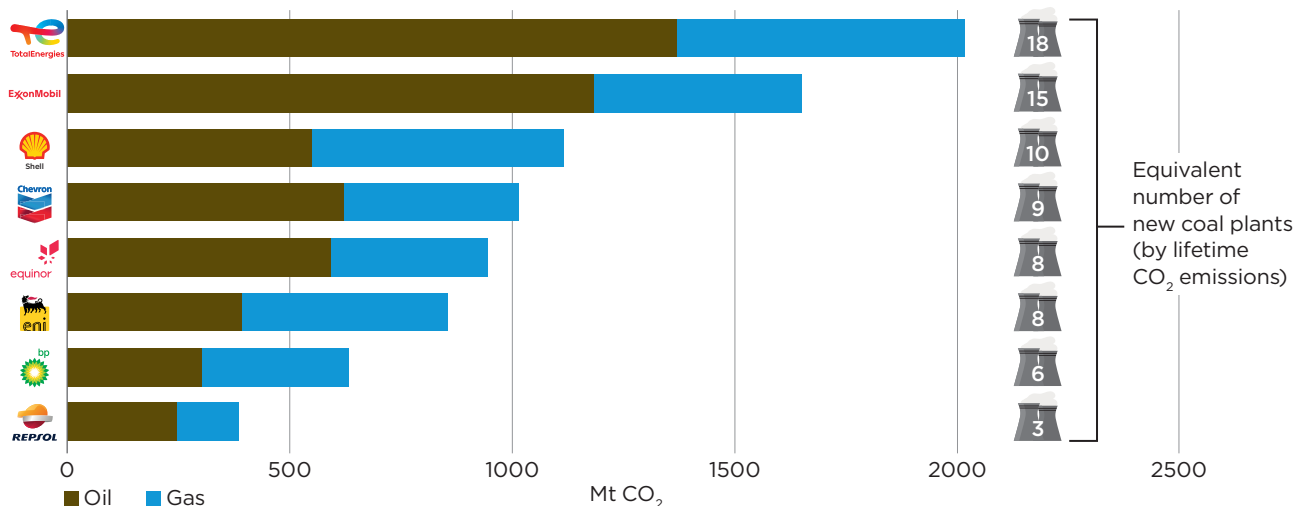
same 10-year period. But six of the eight companies analyzed remain on track to produce more total oil and fossil gas in 2030 than in 2021.

Even though many of these companies previously relied on the IEA's analysis, none is aligning its near-term strategies with the IEA's finding that a 1.5°C-aligned scenario leaves no place for new oil and gas projects beyond those already under development.

Instead, they continue to propose new projects. These eight companies alone are leading or invested in over 200 new conventional oil and gas projects

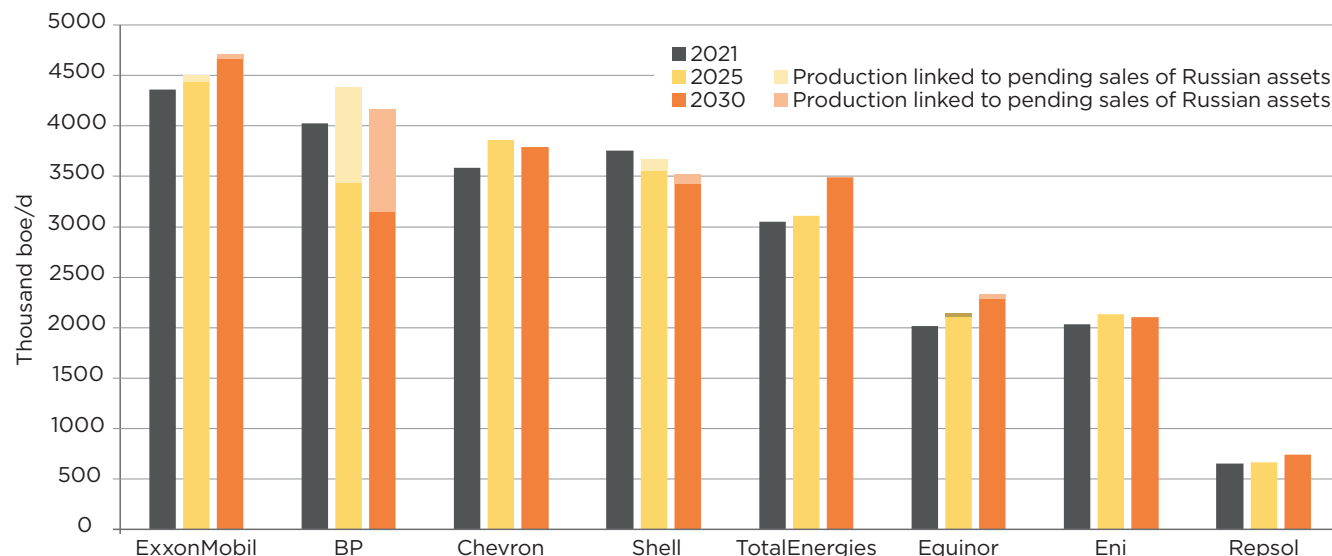
projected to receive a final investment decision between the start of 2022 – when the IEA said new development should cease – and the end of 2025. If these projects, as well as new shale wells, are approved as planned through 2025, they could result in over 12.5 billion additional barrels of oil and over 61 billion additional cubic feet of fossil gas being produced by 2050.⁹ Burning that oil and gas would result in over 8.6 Gt of extra carbon-dioxide pollution in the atmosphere by 2050. That is the equivalent of more than one quarter of the world's total energy-related emissions in 2020, or of the lifecycle emissions of 77 new coal power plants.⁴⁵

FIGURE 2: CUMULATIVE CO₂ EMISSIONS THAT WOULD RESULT FROM BIG OIL AND GAS COMPANIES' FINAL INVESTMENT DECISIONS FROM 2022 TO 2025



Sources: Oil Change International analysis using data from Rystad Energy, U.S. EPA, and IPCC⁴⁶

FIGURE 3: PROJECTED CHANGES IN OIL AND GAS COMPANIES' GLOBAL PRODUCTION BY 2025 AND 2030, SHOWING THE EFFECT OF PLEDGED RUSSIAN WITHDRAWALS



Source: Oil Change International calculation using data from the Rystad Energy UCube (April 2022)

⁹ These totals likely undercount the potential emissions "lock-in" from companies' new investments in shale oil and gas production over this same period. This primarily affects data for ExxonMobil and Chevron. The data includes production to 2050 from shale wells the companies are expected to drill within the next three years, but does not capture the longer-term emissions lock-in created by investments in new shale leases and infrastructure. For shale, final investment decisions for production occur at the well level (on a shorter cycle), whereas for conventional projects they occur at the field level.

BOX 4: SCOPE 1, 2, AND 3 EMISSIONS

The *Greenhouse Gas Protocol* for company emissions divides emissions into three categories:⁴⁷

- **Scope 1:** Direct emissions, like emissions from the oil and gas extraction process
- **Scope 2:** Emissions from generating energy purchased by the company (for example, the emissions in the electricity generated to power a refinery)

- **Scope 3:** Supply chain emissions, notably including emissions from burning oil and gas produced or sold by the company to individual consumers or otherwise^h

Given that Scope 3 emissions account for about 85 percent of the industry's carbon pollution,^{1,48} any materiality assessment for a major oil or gas company would show that Scope 3 emissions (particularly the emissions from burning the oil and/or gas sold) are significant and critical to address. To comprehensively manage emissions, a company must account for all scopes.⁴⁹

ANALYSIS BY COMPANY

 BP's climate pledges and plans are **grossly insufficient**, despite BP's rhetoric. In August 2020, BP stated that it would "not seek to explore in countries where it does not already have upstream activities,"⁵⁰ but the company continues to pursue new exploration in countries where it already operates – in 2021 alone, it made three new oil or gas discoveries: Puma West (oil) in the U.S. Gulf of Mexico, Verknekubinskiy (gas) in Russia, and Shafag Asiman (gas) in the Azerbaijan-Georgia-Turkey region.⁵¹ A pledge not to search for oil in new countries is, in effect, a recommitment to keep searching for oil and fossil gas in the 65 to 70 countries, across six continents, where BP already operates.⁵²

In 2020, BP forecast that it would reduce its production by around 30 percent by 2030,^j but it is increasingly clear that the company does not intend to actually begin winding down its own assets to contribute to a global decline in production. Instead, BP plans to meet this target primarily, if not wholly, by selling producing assets to other companies (which will continue to produce oil and gas from them). In a February 2022 investor call, BP chief financial officer Murray Auchincloss described this reduction forecast as only a "squiggle," and said:⁵⁴



So right now, what we are guiding to is we were at 2.6(mmboe/d) in 2019. We are obviously around 2.2(mmboe/d) in 2021(mmboe/d). We still have this guidance of around 2(mmboe/d) in 2025, and we still have this squiggle of 1.5(mmboe/d) in 2030.

What we are now saying is that decline from 2.2(mmboe/d) to 1.5mmboe/d is basically going to be gradual divestments over time and

that we can hold the base business flat now with growing margins...

...we are investing pretty much everything we can in every basin, with the exception of one...

An oil and gas company selling oil and gas assets to another company that will keep producing oil and gas with those assets does nothing to help achieve the ambition of the Paris Agreement; it just transfers polluting assets from one company's books to another's.

h In our analysis, we focus primarily on the carbon pollution from the burning of oil and gas extracted and sold, as this is likely to be the overwhelming majority of big oil and companies' Scope 3 emissions. However, Scope 3 emissions do also include other supply-chain emissions.
i For a specific example, Shell reports that Scope 3 accounts for more than 90 percent of its overall emissions. By comparison, the Science Based Targets initiative (which does not currently accept targets from most fossil fuel producers) requires targets to include a Scope 3 target if Scope 3 emissions account for more than 40 percent of the company's total emissions.
j BP framed this as a 40 percent cut, but this pledge excluded BP's interest in Russian company Rosneft. Factoring in this production results in this pledge translating to only a 30 percent cut.⁵³

BP has set a complex array of “net zero” targets for 2050, covering:⁵⁵

- Scope 1 and 2 emissions;
- a subset of scope 3 emissions from the carbon pollution embedded in its upstream oil and gas production (excluding Rosneft); and
- The emissions intensity of the value chain of the energy products it sells.

This complex combination of absolute and intensity targets obfuscates BP’s failure to set any end date for its oil and gas production. Instead, BP’s targets explicitly depend on CCS.⁵⁶ The company continues to frame fossil gas production as low carbon, even listing a “shift to gas” as a key action it is taking toward its misleading “net zero” intensity target for energy products sold.⁵⁷ BP remains a member of industry associations that lobby against climate policy.⁵⁸

Though BP does have a human rights policy that purports to affirm human rights and the rights of Indigenous Peoples, the company has faced many allegations of human rights violations that remain unresolved.⁵⁹ It is not clear that this policy contains sufficient meaningful safeguards. BP is one of the major international oil companies invested in fracking operations in Argentina, where Indigenous and civil society organizations have alleged that drilling is devastating the health and ancestral lands of the Indigenous Mapuche peoples.⁶⁰ The Mapuche Confederation named BP subsidiary Pan American Energy in a 2018 criminal complaint over the dumping of toxic fracking waste.⁶¹



Chevron’s climate pledges and plans are **grossly insufficient on all criteria.**

It has not come anywhere near considering the imperative to end new fossil fuel production. Since the original *Big Oil Reality Check*, the company has set a 2050 “net zero aspiration” for upstream Scope 1 and 2 emissions, and expressly states that this depends on “successful negotiations for CCS.”⁶² Its only Scope 3 targets – covering the emissions from its customers burning the oil and gas it sells – are short-term carbon intensity targets.

Remarkably, Chevron’s 2021 climate report graphs the oil supply decline-rate in the IEA’s 1.5°C-aligned scenario, showing that investment in new fields is not needed. But the text accompanying this graph only discusses the IEA’s business-as-usual Stated Policies Scenario,^k asserting

that there is a “supply gap” in medium-term oil production that requires more investment while ignoring the climate consequences.⁶³ Chevron describes the IEA’s 1.5°C-aligned scenario as “a hypothetical scenario that assumes what we believe to be a highly unlikely transformation.”⁶⁴ The company does not suggest any alternative 1.5°C-aligned scenario.

The company is actively involved in industry groups that lobby against climate solutions, has no meaningful commitment to a just transition, and maintains a human rights policy that is woefully inadequate.⁶⁵ A 2021 report documented 70 ongoing criminal and civil cases against Chevron across 31 countries brought in response to the company’s alleged pollution, human rights abuses, and corruption, more than 60 percent of which involve Indigenous Peoples.⁶⁶

^k The IEA’s Stated Policies Scenario is a scenario that forecasts climate failure by assuming that governments implement no new climate or energy transition policies. For more detail see Fix The WEO, <https://www.fixtheweo.org/>



Eni's climate pledges and plans are **grossly insufficient**. Despite its climate promises, the company continues to seek new exploration licenses and to develop new production.⁶⁷ It expressly aims to continue growing its oil and gas production until 2025, including bringing 14 major new projects on stream.⁶⁸ Beyond 2025, the company plans for continued growth in fossil gas production, alongside a “flexible decreasing trend” in oil production.⁶⁹ Though Eni has set a 2050 “net zero” target covering all Scope 1, 2, and 3 emissions (that is, including the emissions from customers burning the oil and gas it produces and sells), the company’s climate goals depend on extensive uses of CCS, reaching 50 megatonnes of carbon dioxide per year by 2050.⁷⁰ In 2020, Eni withdrew from one industry association, citing the association’s misalignment on climate policy, but it remains a member of multiple industry bodies that lobby against climate solutions.⁷¹

The company’s climate plans lack meaningful detail regarding how it will engage with working people and their communities to implement just transition measures. Although, ironically, Eni titled major sections of its 2019 and 2020 sustainability reports, “A Just Transition,” they lacked any commitment to entering into tripartite or multipartite dialogues, to retraining affected workers, or to providing good green jobs.⁷² Eni’s human rights policy lacks meaningful safeguards and/or meaningful engagement with Indigenous Peoples’ rights, and suggests that “free, prior and informed consultation” (not consent) is sufficient.⁷³ The Ikekiri community in the Niger Delta has struggled for decades to hold Eni responsible for the damage to local environment and livelihoods caused by oil spills from an Eni subsidiary.⁷⁴ The community reached a settlement for partial compensation in 2019, only after taking Eni to court in Italy, but continues to contend that the contamination has never been adequately cleaned up.⁷⁵



Cipiota. (CC BY-SA 3.0)



Dejany Mlobsew. (CC BY 4.0)



Equinor’s climate pledges and plans are **grossly insufficient**. Though its *2021 Sustainability Report* includes a breakout box by IEA executive director Dr. Fatih Birol about the IEA’s 1.5°C-aligned scenario, Equinor has no plans to reform its business model to align with that scenario by ending new exploration or new production beyond existing fields.⁷⁶ The company plans to focus its new exploration “on areas with existing infrastructure,” but this does not mean that it will limit its operations to existing fields; Equinor boasts of being “a leading global explorer.”⁷⁷ In Norway, Equinor plans to drill more exploration wells in 2022 than it did 2021, including in the Arctic Barents Sea, with 80 percent of new wells being near (but not in) existing fields.⁷⁸

Instead of setting a Paris-aligned end date and phase-out plan, Equinor expressly aims to continue earning revenue from producing oil and gas in the Norwegian continental shelf “for decades.”⁷⁹ Equinor expects to increase oil and gas production through 2026 and to maintain current levels through 2030.⁸⁰

Even as it continues to increase production, Equinor has set a complex array of targets for net and absolute emissions reduction and for net carbon intensity, none of which fully cover all scopes of pollution. Equinor has set a 2050 “absolute near zero” target that applies only to Scope 1 and 2 emissions within Norway.⁸¹ The company also has a 2050 “net zero” target covering a subset of scope 3 emissions: it covers oil and gas Equinor produces but not the company’s full volume of sales.⁸² Importantly the company has no absolute target to reduce the emissions of the products it sells before 2050. Equinor even qualifies that its inclusion of emissions from sold products in its “net zero” target “should in no way be construed as an acceptance by Equinor of responsibility for the emissions.”⁸³

To achieve these inadequate and incomplete targets, Equinor plans to rely heavily on CCS, claiming that “CCS and hydrogen are important enablers to deliver on the goals of the Paris Agreement.”⁸⁴ The plan expressly describes so-called “blue hydrogen” produced from fossil gas as a “low



carbon solution,” promotes the “bridge” fuel myth, and even lobbies for the EU Sustainable Finance Taxonomy to include unabated fossil gas.⁸⁵

Unsurprisingly, therefore, Equinor remains a member of several industry associations that continue to lobby against climate solutions.⁸⁶

The company does not have a just transition plan, but has announced that it intends to publish one in 2022.⁸⁷ Though Equinor has a human rights policy, it contains no meaningful safeguards and no reference to Indigenous Peoples’ rights or the right to free, prior, and informed consent.⁸⁸ Indeed, Norwegian climate activists, including Indigenous Sami, have challenged Equinor’s Arctic drilling plans in the European Court of Human Rights.⁸⁹

ExxonMobil ExxonMobil’s climate pledges and plans are **grossly insufficient on all criteria**. The company boasts that it “searches the globe for low-cost hydrocarbon supplies,” and continues to open up new fields.⁹⁰ Instead of committing to cutting oil and gas production this decade to align with 1.5°C, ExxonMobil used the IEA’s 1.5°C-aligned scenario to “test the resiliency of its business and strategy,” finding that “significant growth potential exists in chemicals, low emissions fuels, carbon capture and storage, and hydrogen.”⁹¹ Even under that stress test, the company sees no end date for oil and gas production, and plans to keep extracting fossil fuels for chemical production indefinitely.

In December 2021, ExxonMobil announced a new 2050 “net zero”

target – covering less than 15 percent of the company’s total emissions. The target covers only Scope 1 and Scope 2 emissions from assets the company directly operates, excluding the emissions released when customers actually burn the fossil fuels ExxonMobil sells them.⁹² In 2020, ExxonMobil reported its Scope 1 and 2 net equity emissions as 112 MtCO₂e, and for the first time reported its Scope 3 emissions from product sales: 650MtCO₂e. Together, the 2050 “net zero” Scope 1 and Scope 2 target accounts for less than 15 percent of the company’s actual total emissions.⁹³

What’s more, ExxonMobil expressly aims to rely heavily on CCS to meet even this weak pledge.⁹⁴ The company continues to promote fossil gas misleadingly.⁹⁵ We have not been able to identify any just transition commitments or plans from ExxonMobil.

Significantly, ExxonMobil projects even more fossil fuel demand in 2050 than in the IEA’s business-as-usual Stated Policies Scenario, betting on both climate failure and on a failure to transition to renewable energy.⁹⁶ Not only does the company remain an active member of industry associations that oppose climate solutions, but it was ranked in a 2021 study as the company that has done the most to obstruct Paris-aligned climate policy.⁹⁷

ExxonMobil has no explicit human rights policy.⁹⁸ The company faces allegations of significant human rights violations.⁹⁹ ExxonMobil’s existing and planned liquefied natural gas (LNG) projects in Papua New Guinea and Mozambique are linked to the displacement of local communities, violence, human rights abuses, and inequality.¹⁰⁰

Under its pledges and plans, ExxonMobil could keep drilling more oil and gas out of the ground and keep adding fuel to the fire, as people suffer.



Luis García (GFDL)



Repsol’s climate pledges and plans are **grossly insufficient.**

In 2020, the company announced that it would search for oil and gas in fewer countries, but it has not committed to ending exploration.¹⁰¹ For example, Repsol plans to drill another exploratory well in Guyana this year.¹⁰² It also continues to approve new extraction projects.¹⁰³

Repsol forecasts (but does not pledge) that its production will average 600kboe/d to 630kboe/d this decade, down from a peak of 709 kboe/d in 2019.¹⁰⁴ At most, this would mean a 15 percent decline from 2019 to 2030 – not a Paris-aligned pace. Though it has pledged to reduce its net Scope 1, Scope 2, and (partial) Scope 3 emissions by 30 percent by 2030, Repsol has made no express *commitment* to reduce oil and gas production before 2030.¹⁰⁵

Repsol has set a 2050 “net zero” carbon intensity target including all Scopes – but this excludes emissions related to burning the oil and gas Repsol sells that was produced by third parties.¹⁰⁶

Even worse, this 2050 “net zero” carbon intensity target depends on a highly problematic methodology for calculating carbon intensity – and one that depends on a misleading use

of “avoided emissions.” In theory, if accounting for all company emissions, “net zero” carbon intensity could theoretically equal “net zero” in absolute emissions. However, Repsol counts some avoided emissions from “low-carbon power generation” (including, in Repsol’s definition, some fossil gas) as offsets against the company’s Scope 1, 2, and 3 emissions.¹⁰⁷ That is, Repsol could credit itself for “reducing” its own emissions by building a new fossil gas plant in a country that also uses coal for electricity, claiming to displace more polluting energy. By this method, “net zero” carbon intensity does not necessarily reflect a full zeroing out of pollution from Repsol’s production or overall business. Not only, therefore, does Repsol frame fossil gas as low carbon, but even claims avoided emissions from the burning of fossil gas, rather than coal, to reduce its reported emissions intensity.

The company will rely on CCS to achieve a small, but significant, proportion of its goals. CCS is forecast to account for around five percent of Repsol’s reductions in emissions intensity by 2030.¹⁰⁸ In Repsol’s central scenarios, it anticipates reliance on CCS for 10Mt/year to 15Mt/year by 2050, which is comparable to 11 to 17 percent of the total greenhouse gas pollution Repsol reported in 2021.¹⁰⁹

Further, Repsol bears responsibility for lobbying against climate action, as it remains a member of trade associations that oppose climate policy. The company says it will work so that trade associations and initiatives it engages with align with Paris-based targets, but did not find any of its engagement “misaligned” in its 2020 or 2021 reviews.¹¹⁰

Though Repsol refers to “the challenge of a just transition” in its 2021 annual report, that section of the report does not refer to any recognized definition of a just transition, and the company appears to have no actual written just transition plan.¹¹¹

Repsol has a human rights policy, but it lacks robust safeguards, and construes the rights of Indigenous Peoples narrowly.¹¹² The policy refers only to “existing legislation and with International Labor Organization (ILO) Convention 169,” not the United Nations Declaration on the Rights of Indigenous Peoples, and asserts that “free, prior and informed consultation” (not consent) is sufficient. Despite these policies, Repsol has pursued risky drilling within Ecuador’s Yasuní national park, placing Indigenous Peoples’ rights at risk.¹¹³ In Peru, Repsol faces accusations of criminal environmental pollution and human rights violations after its refinery operations caused a coastal oil spill in January 2022, alleged to be one of the worst in the country’s history.¹¹⁴



Shell’s climate pledges and plans are **grossly insufficient**. The company continues

to both launch new exploration for oil and gas, and approve new extraction projects.¹¹⁵ Shell says that it believes that its annual *oil* production peaked in 2019 and expects that production will decline by 1 to 2 percent per year until 2030 – but this is a forecast not a commitment, does not apply to fossil gas production, and falls short of the decline rate needed to align with 1.5°C.¹¹⁶ Shell has published a transition strategy, but this strategy explicitly aims for the company to keep producing oil and gas beyond 2050.¹¹⁷ Indeed, Shell CEO Ben van Beurden claimed in 2021 that rapid cuts in oil production would be “a valley of death” for the company.¹¹⁸

The company’s 2030 targets do not align with the Paris Agreement. Shell has made no commitment to reduce its absolute Scope 3 emissions by 2030 and is appealing a court ruling that would require the company to do so.¹¹⁹ Instead, its 2030 target is to halve only the Scope 1 and 2 emissions “under Shell’s operational control” – amounting to less than a 2.5 percent reduction from the company’s total 2020 emissions.¹²⁰ This is because Shell’s Scope 1 and 2 emissions account for less than five percent of its total emissions on an operational basis.¹²¹

The company has a 2050 “net zero” emissions intensity target that includes emissions from the products it produces and sells on an equity basis.¹²² It attempts to frame this as equivalent to an absolute target, asserting that it aims to “become a ‘net zero’ emissions energy business,” while also stating elsewhere that its net carbon intensity is not based on “an inventory of absolute emissions.”^{123,1} There are a number of risky potential loopholes in Shell’s intensity metric, which mean that “net zero” carbon intensity does not mean zero absolute emissions. In using a carbon intensity metric pegged to energy sales, Shell excludes the emissions associated with any non-energy products.¹²⁵ Further, Shell

intends, in the future, to include “actions taken to reduce emissions by end-users of the energy products we sell,” which could allow for highly misleading claims about avoided emissions, for example, and its targets beyond 2030 are explicitly contingent on “mitigation actions by our customers such as carbon capture and storage and nature-based offsets.”¹²⁶ Shell’s argument for why it uses a carbon intensity measure, rather than an absolute measure, lacks detail.¹²⁷ Finally, until April 2022 the company coupled its pledge with a proviso that it would only act “in step with society,” so if society “[changed] more slowly, [Shell would] not be able to move as quickly.”¹²⁸ Consequently, Shell’s 2050 target is a contingent target only.

To achieve its targets while continuing to produce fossil fuels, Shell plans to use large volumes of carbon sequestration and offsets.¹²⁹ The company’s strategies depend on extensive use of both CCS and reforestation, instead of actually cutting emissions. It has been severely criticized for its heavy reliance on offsets.¹³⁰

Moreover, Shell explicitly aims to grow its fossil gas business to over 55 percent of its total production by 2030, at odds with the IEA’s 1.5°C-aligned scenario, and



Raysonho @ Open Grid Scheduler/Grid Engine (CC0 1.0)

¹ Indeed, the Netherlands’ advertising watchdog has already ruled that Shell advertising around a “carbon neutral” petrol campaign is misleading. It is possible that the company’s 2050 target may prove to be similarly misleading.¹²⁴



Luka Tomac/Friends of the Earth International (CC BY-SA 2.0)

continues to mislead by asserting myths around gas.¹³¹

Unsurprisingly, Shell remains a member of industry associations that lobby against climate solutions, despite claiming otherwise.¹³² The Dutch Advertising Code Committee has found that Shell has misled people in its advertising.¹³³

Shell's insufficient transition plan does contain explicit discussion of just transitions, but makes no commitment to enter into tripartite or multipartite dialogue with workers and offers no support to workers to transition into other fields.¹³⁴

When it comes to human rights, Shell's words are not borne out by its actions. The company does have a human rights policy and does recognize the principle of free, prior, and informed consent and acknowledges the United Nations Declaration on the Rights of Indigenous Peoples – but then says that the

company seeks to secure “the support and agreement of Indigenous Peoples” through consultation.¹³⁵ The policy does not say what Shell will do when free, prior, and informed consent is not given, and contains only limited processes to seek a remedy, alongside insufficient safeguards.

Shell has faced a long history of allegations of violations of human rights and Indigenous People's rights, particularly in Nigeria. Ken Saro-Wiwa and other activists in the Movement for the Survival of the Ogoni People (MOSOP) exposed internationally the impacts of Shell oil production in Ogoniland, the Indigenous territory of the Ogoni people, casting a spotlight on pollution and abuses. MOSOP issued the Ogoni Bill of Rights in 1990, calling for political autonomy and an end to the “unchecked environmental pollution and degradation” caused by oil exploration and exploitation by multinational oil companies with the blessing of the government of Nigeria.¹³⁶ For this and other work, Saro-Wiwa and

eight other members of the “Ogoni Nine” were executed in 1995.¹³⁷ Allegations of human rights abuses have continued; in collaboration with Nigerian civil society organizations, Amnesty International has produced numerous reports detailing military and police action against protesters, industry-funded militias, and refusal to clean up and provide reparations for spills and other damages.¹³⁸

This history of serious allegations extends to the present day. In December 2021, for example, a South African court ruled that Shell would have to stop seismic blasting in a whale breeding ground off that country's eastern coast; the plaintiff's lawyer described this ruling as a victory for Indigenous People and “a culmination of the struggle of communities along the Wild Coast for the recognition of their customary rights.”¹³⁹



TotalEnergies' climate pledges and plans are **grossly insufficient.**

The company continues to pursue new oil and gas exploration and to approve new extraction projects.¹⁴⁰ TotalEnergies highlights in its 2021 Strategy and Outlook that it expects 3 to 5Mb/d worth of new greenfield conventional oil projects to be sanctioned globally in 2022, compared to a yearly industry average of under 1.5 Mb/d from 2015 to 2021.¹⁴¹ The company claims to be "inspired" by the IEA's 1.5°C-aligned scenario.¹⁴² However, even though the IEA found that there is no room for new oil and gas production in a 1.5°C-aligned scenario, TotalEnergies' criteria for approving new hydrocarbon projects is only that such projects must have a lower greenhouse gas intensity than the company's portfolio average – and be highly profitable and low-cost.¹⁴³

The company forecasts that its upstream production will grow by about three percent per year by 2026. While TotalEnergies expects its oil production to peak this decade and then decline to near 2019 levels, it plans to expand its fossil gas production and sales, resulting in a total growth in oil and gas production and sales until 2030.¹⁴⁴ Accordingly, TotalEnergies' 2030 targets are insufficient. The

company has committed to reduce its Scope 1, 2, and 3 emissions in Europe by 30 percent, but has only predicted (not pledged) that its global Scope 3 emissions will decrease by an unnamed amount.¹⁴⁵ Both targets are incompatible with halving global CO₂ emissions by 2030.

TotalEnergies' long-term emissions reduction targets are complex and have changed repeatedly. Until late 2021, the company had no worldwide target covering Scope 3 emissions. The company attempted to justify and explain the limitation of its absolute Scope 3 target to Europe by saying that it would set "net zero" targets covering the emissions from TotalEnergies customers burning the oil and gas it sells only where governments pursue policies toward "net zero" emissions – ignoring the fact that many governments outside Europe had set such targets.¹⁴⁶ In September 2021, the company published a summary of its 2030 target that also included revised 2050 targets. This summary included a 2050 "net zero" target within Europe covering all scopes of pollution; a 2050 "net zero" target for Scope 1 and 2 pollution worldwide; and a 2050 "net zero" Scope 3 worldwide carbon intensity target.¹⁴⁷ The company's sustainability report released in March

2022 included an additional set of slightly different targets, referring to an absolute "net zero" Scope 1 target (but no Scope 2 target), and both absolute and intensity-based Scope 3 targets covering the use of products sold.¹⁴⁸

This confusion of targets obscures the reality that TotalEnergies' long-term pledges fall short of what is needed to limit warming to 1.5°C. Despite the grandiose rhetoric around "transformation" in its 2021 rebrand from Total to TotalEnergies, the company has no Paris-aligned plan to phase out fossil fuel production, nor any stated end date for fossil fuel production.¹⁴⁹

To meet its targets, TotalEnergies plans to rely significantly on technological CCS, alongside afforestation and other "nature based solutions."¹⁵⁰ The company aims to reduce its gross Scope 3 emissions from 410Mt to 100Mt of CO₂-equivalent by 2050, then provide some kind of technological "carbon storage service for customers" to somehow sequester at least half of the remainder.¹⁵¹

TotalEnergies strongly promotes the myth that fossil gas is a transition fuel.¹⁵² TotalEnergies falsely claims that fossil gas, and hydrogen produced from it,



are “allies of the energy transition.”¹⁵³ Even more misleadingly, in September 2020, the company proclaimed that it was selling “carbon neutral” fossil gas because of offsets from forest protection projects along the Zimbabwe-Mozambique border – which independent experts criticized as indefensible and misleading.¹⁵⁴

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.¹⁵⁵

In 2021, TotalEnergies announced a new, “Transforming With Our People” strategy, which it frames as a “just transition for [its] employees.”¹⁵⁶ However, this strategy does not align with any recognized definition of a just transition. While it includes reference to

redeploying and reskilling staff, it does not focus on good jobs or multipartite dialogue, and leans on human resource processes like staff surveys, “lunch and learn” events, and communications from senior management.

TotalEnergies has a human rights guide booklet.¹⁵⁷ 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.”¹⁵⁸ 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 seven years ago, the company has faced several allegations of human rights violations, in particular related to the company’s massive projects in Mozambique¹⁵⁹ and Uganda.

TotalEnergies is the lead shareholder in the USD 3.55 billion East African Crude Oil Pipeline (EACOP) from Uganda to Tanzania.¹⁶⁰ 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 for speaking out against the planned oil developments.¹⁶¹ 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.¹⁶² 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.¹⁶³

BOX 5: QUESTIONS TO ASK OIL AND GAS COMPANIES

If you are evaluating oil and gas climate pledges, here are some critical questions to ask:

When evaluating oil and gas climate pledges, here are some critical questions to ask:

- What proportion of your current fossil fuel production is covered by your commitment, accounting for all extraction in which you have a financial stake?
- 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 3% to 4% 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?
- What just transition plan have you developed in dialogue with workers, affected communities, and governments to transition workers to high-quality jobs in other sectors?
- What policies do you have in place to safeguard human rights and Indigenous Peoples’ rights? What policies are in place to obtain Free, Prior, and Informed Consent from Indigenous Peoples before operating on their land?

CONCLUSION

The companies that have collectively done the most to fuel the climate crisis cannot be trusted to meaningfully confront it. As we concluded in the original *Big Oil Reality Check*, big oil and gas companies will not manage their own decline. Investors and governments must intervene.

Despite a flurry of new commitments and ever more rhetoric around complex, long-term “net zero” targets, the reality remains that none of the eight major oil and gas companies considered in this analysis comes anywhere close to the bare minimum for alignment with the Paris Agreement. Though several companies attempt to frame their strategies as 1.5°C-aligned, the true situation is very different.

Even those companies whose plans imply reductions in production by 2030 plan to achieve this by selling off polluting assets that produce fossil fuels to other companies that will continue to

use them. Selling an oil field to another company is not climate action.

The reality is that, so long as an oil company pursues expansion plans, it is not in transition. As even the IEA acknowledged in 2021, new oil and gas production beyond existing fields and mines is inconsistent with the Paris Agreement’s goal of limiting warming to 1.5°C. Despite this, each of the eight companies assessed in this report continues to put forward more new production projects for final investment decisions. These projects can not be financed if we are to achieve the goals of the Paris Agreement.

Instead, we need a managed decline in fossil fuel production, with some existing fields and mines being closed early alongside meaningful just transition measures. This should be based on equity, and in particular, the wealthiest countries with diversified economies should act first and fastest.

This will require both demand- and supply-side interventions. It is essential that public- and private-sector decision-makers take action to both destroy the demand for fossil fuels and choke off their production.¹⁶⁴ In this, both governments and the financial sector have key roles to play. Public and private finance must be redirected to clean energy and away from oil, gas, and coal production and infrastructure. Despite these companies’ misleading claims, there is no credible pathway now for continued oil and gas expansion in a 1.5°C-aligned scenario.

It is time to break free from the unstable, boom-bust cycle of the fossil fuel economy – and that means breaking free from big oil and gas companies’ hold on the global energy system.



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