

ASSESSMENT OF EXXONMOBIL'S CLIMATE STRATEGY





ASSESSMENT OF EXXONMOBIL'S CLIMATE STRATEGY

Analysis, research and drafting by:

Louis-Maxence Delaporte, Energy Analyst, louis-maxence@reclaimfinance.org
Henri Her, Energy Analyst, henri@reclaimfinance.org

Written with the contribution of:

Lucie Pinson, Executive Director
Paul Schreiber, Regulation Campaigner
Clément Faul, Research Manager
Paddy McCully, Energy Transition Senior Analyst

Graphic design:

Jordan Jeandon

Publication date:

April 2023

TABLE OF CONTENTS

Introduction	4
1. ExxonMobil in a nutshell today	6
2. Transparency of ExxonMobil's climate plan	7
3. Quality of ExxonMobil's climate plan	10
a. Oil and gas trajectory	10
b. Cash-flow allocation	14
c. Decarbonization targets and climate trajectory	15

INTRODUCTION

and gas producer worldwide and is the 6th biggest oil and gas upstream developers globally. The company as the 17th biggest scope 2 operated emissions on an intensity Liquified natural gas (LNG) terminal developer worldwide.2

emitters worldwide, and one of the six oil and gas majors, ExxonMobil is one of the few companies in the world whose climate transition (or lack thereof) in the coming years will have a determining impact on our collective ability to limit global warming to +1.5°C. In 2021, ExxonMobil published its corporate plans with 2030 Greenhouse Gas (GHG) emission-reduction plans that includes

xxonMobil ranked as the 5th biggest oil scope 1 and 2 decarbonization targets in intensity.3 In 2022 the company pledged to achieve carbon neutrality on its scope 1 and basis by 2050 or sooner.4

ExxonMobil's investors and other financial As one of the largest greenhouse gas stakeholders have both a key interest and a crucial responsibility to ensure that the company swiftly aligns on a 1.5°C-compatible pathway. In addition to targeted restriction policies, shareholder engagement is an important tool to reach this objective.

The key findings of this briefing are:

ExxonMobil does not provide sufficient information about its decarbonization

plan to allow investors and other financial stakeholders to correctly assess its capacity to align with a 1.5°C pathway. Insufficient or no information is given on the company's absolute and relative GHG reduction targets covering scope 1, 2 and 3, on its CAPEX plan, on its 2030 targeted energy mix and production volumes, as well as on the scenario it uses to establish its climate plan.

- Taking into account ExxonMobil's oil and gas production from currently producing fields, and its fields that are under development and under field evaluation, its production level in 2030 will be 14% higher than what is required to align with the International Energy Agency's 1.5°C-aligned Net Zero Emissions (NZE) scenario.
- ExxonMobil plans to increase its oil and gas production to 4,200 kboe per day by 2027. If it meets this target and with the

hypothesis that ExxonMobil maintains its production at plateau between 2027 and 2030, its production will be 39% higher than the level required to align with the

- ExxonMobil has not committed to stop developing new oil and gas projects beyond those already in development and around two thirds of its current expansion plans are in fracking, ultradeep water activities, and tar sands.
- ExxonMobil does not report investments dedicated to renewable power generation.
- ExxonMobil has pledged mitigation targets for 2030 on scopes 1 and 2 only. As the group does not disclose any scope 3 target nor exhaustively reports its current emissions, it is not possible to project ExxonMobil's GHG emissions trajectory.



1. EXXONMOBIL IN A NUTSHELL TODAY

xxonMobil accounts for 3.0% of global oil
 and gas production and 3.1% of short term expansion plans.⁵

As of March 1st, 2023:6

- ExxonMobil currently has 22,823 million barrels of oil equivalent (mmboe) of resources under production, with 14,095 million barrels (mmbbl) of oil and 8,728 mmboe of fossil gas. This represents the equivalent of 17 years of production at 2022 levels.
- ExxonMobil also has 6,977 mmboe of resources under development or field evaluation, including 4,804 mmbbl of oil and 2,172 mmboe of fossil gas. This represents 5.2 years of production at 2022 levels.

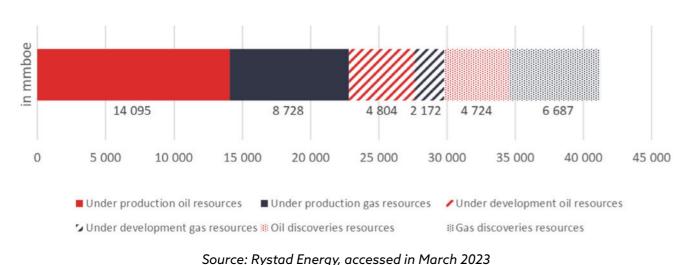
 ExxonMobil owns 11,411 mmboe of oil and fossil gas discoveries, including 4,724 mmbbl of oil and 6,687 mmboe of fossil gas. This represents 8.5 years of production at 2022 levels.

Beyond exploration and production, ExxonMobil is also active in the downstream segment with refining and petroleum product sales.

In 2022, ExxonMobil extracted 859 mmbbl of oil and 505 mmboe of gas. ExxonMobil's refinery throughput was 1,471 mmbbl, and refined product sales were 1,952 Mt.⁷ ExxonMobil does not report any renewable power generation.

ExxonMobil's oil and gas resources

(based on current ressources in million barrels of oil equivalent)





2. TRANSPARENCY OF EXXONMOBIL'S CLIMATE PLAN

The adoption and publication of sufficiently detailed targets and indicators are a prerequisite to assessing how a company's transition plan aligns with a 1.5°C trajectory.

In 2023, ExxonMobil published 2030 decarbonization targets.8

While ExxonMobil provides information about its decarbonization targets, it does not include significant indicators, and the information provided lacks the granularity needed to allow investors and other financial stakeholders to correctly assess its capacity to align with a 1.5°C pathway. The information given does not allow investors to understand the company's trajectory for GHG emissions and its production model through 2030, or the risks associated with financial exposure to the company.

For example, ExxonMobil's does not report any decarbonization target on scope 3 emissions, while it represents a large majority of the oil and gas company's emissions.⁹

The table below summarizes the disclosure or lack of disclosure of a few key transition indicators by ExxonMobil. It does not provide a global assessment of the transparency and completeness of ExxonMobil's transition plan, but rather focuses on basic indicators that should be at the foundations of any oil and gas major transition plan.

Assessment of the transparency of ExxonMobil's climate plan

Does ExxonMobil publish detailed information about the following indicators up to 2030?	Yes - No Partially	Comment		
Absolute & relative GHG emissions reduction targets covering scope 1, 2 and 3	No	 ExxonMobil communicates on 2030's relative and absolute scope 1 and 2 targets.¹⁰ ExxonMobil does not disclose any scope 3 targets. 		
Contribution of carbon capture along the company's value chain to emission reduction targets	Partially	 ExxonMobil indicates 2030 CCUS target in CO2 per year. ExxonMobil does not indicate the total GHG captured by 2030. 		
Contribution of offsets to the emission reduction targets, and offsetting approaches ¹¹	No			
Capital expenditure (CAPEX) breakdown by activity, and by production maintenance and growth	No	 ExxonMobil informs on its 2023-2027 forecasted CAPEX.¹² ExxonMobil does not indicate the breakdown of CAPEX per activity. ExxonMobil does not indicate the repartition between growth and maintenance CAPEX. 		
2030 targeted energy mix and production volumes	No	 ExxonMobil does not report its 2030 total energy supply projections and 2030 future energy mix. ExxonMobil does not communicate on its oil and gas production beyond 2027. 		
Reference scenario used to define the climate targets ¹³	No	 ExxonMobil does not explicitly state which scenario it uses to construct its climate targets. ExxonMobil tested the resiliency of its portfolio against a range of future scenarios that are defined by them as "aligned with the goals of the Paris Agreement", including the NZE scenario. 		

3. QUALITY OF EXXONMOBIL'S CLIMATE PLAN

a. Oil and gas trajectory

In May 2021, the IEA published its "Net Zero Emissions (NZE)" scenario. This provides a pathway to meet global energy needs while having a 50% chance of keeping global warming below 1.5°C.¹⁴ It was used as the reference scenario in the World Energy Outlook (WEO) 2021 and was updated in the WEO 2022 published in October 2022.¹⁵ It projected a reduction in oil and gas production of 22 and 23% respectively by 2030 compared to 2021 levels and an end to the development of new oil and gas production projects and LNG terminals.

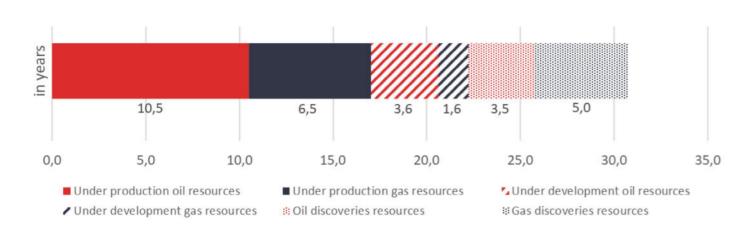
According to the Global Oil and Gas Exit List (GOGEL), ExxonMobil is the 6th top global oil and gas upstream developer. 51% of its expansion plans did not obtain their Final Investment Decision (FID) before 2022 and then are overshooting the IEA NZE scenario. ExxonMobil is increasingly tapping into unconventional fracking, ultradeep water

resources and tar sands. Unconventional resources all together account for 64% of the oil and gas resources currently being developed by the major. Among the main projects under development today are fields located in the Vaca Muerta basin in Argentina, in the shale Permian basin, in the Alberta tar sands are, in offshore fields located in Guyana and in the Cabo Delgado basin in Mozambique.

Despite the disrupted energy environment caused by the invasion of Ukraine, the need to halt oil and gas expansion as soon as possible remains a key feature of the IEA NZE scenario. The May 2021 NZE scenario already projected to halt the development of new oil and gas fields, beyond those for which the FID was approved before January 1st, 2022. Considering 2022's LNG capacity additions, the WEO 2022 version of the NZE highlights the need to also end the development of new LNG terminals, beyond those approved by January 1st, 2023.

ExxonMobil's oil and gas resources

(based on current ressources and 2022 level of production)



Source: Rystad Energy, accessed in March 2023



The completion of some projects that can swiftly enter production and operate for a limited time only – mainly shale oil & gas projects – is not expressly forbidden in the WEO 2022 version of the NZE. The IEA notably stresses that the invasion of Ukraine cannot justify a "new wave of oil and gas infrastructure", and that any new oil and gas fields will make it "even more challenging" to meet carbon neutrality targets and "creates the clear risk that [the 1.5°C] target moves out of reach". Concretely, any such project will require even greater reduction efforts in other sectors and activities.

The IPCC also highlights the risks associated with the development of any new fossil fuel projects. This concurs with a large and growing body of scientific evidence showing the need to immediately end fossil fuel development and a growing consensus on this in net-zero policy discussions. 19

Oil and gas production should decrease by 21% and 6% respectively during the decade according to the NZE scenario.²⁰ However, without developing any new oil and gas fields and extracting only its resources that are already under production, ExxonMobil has enough resources to produce the equivalent

of 17 years of oil and gas production at its 2022 level. ExxonMobil's resources under development and field evaluation will provide ExxonMobil the equivalent of another 5.2 years of production at its 2022 production level. If ExxonMobil exploits all its oil and gas discoveries, ExxonMobil will have enough resources to produce the equivalent of a further 8.5 years of production at its 2022 level.

In the NZE scenario, the oil and gas production rate declines due to the combination of the natural depletion of existing oil and gas fields and the absence of new fields to fill the gap. This decline happens even though the NZE relies on material levels of negative emissions, including through the deployment of technologies unproven at scale, and would be much faster without such a reliance. Other prominent 1.5°C scenarios with no or low overshot also show oil and gas production declining by 2030. These, include the One Earth Climate Model (OECM),21 the Network for Greening the Financial System (NGFS)' Net-Zero scenarios,²² and IPCC 1.5°C with no or low overshot scenarios filtered to limit the reliance on negative emissions (CCS, NBS...) to reasonable volumes.23

The following chart compares ExxonMobil' planned oil and gas production level in 2030 (indicated with a black cross - ExxonMobil plans to increase its oil and gas production to 4,200 kboe per day by 2027)²⁴ with the level that would be considered aligned with the NZE scenario. That level aggregates production from its producing fields and its underdevelopment fields that obtained FID before 2022. ²⁵ As ExxonMobil does not communicate on its future production, we represented its 2027 to 2030 production at plateau. The chart also indicates the level of production that would come from the fields under production and those under development and under field evaluation. To reach its production target, ExxonMobil will have to increase its oil and gas production beyond its current short-term expansion plans. That means ExxonMobil will have to develop part of its discoveries and/or to buy new fields.

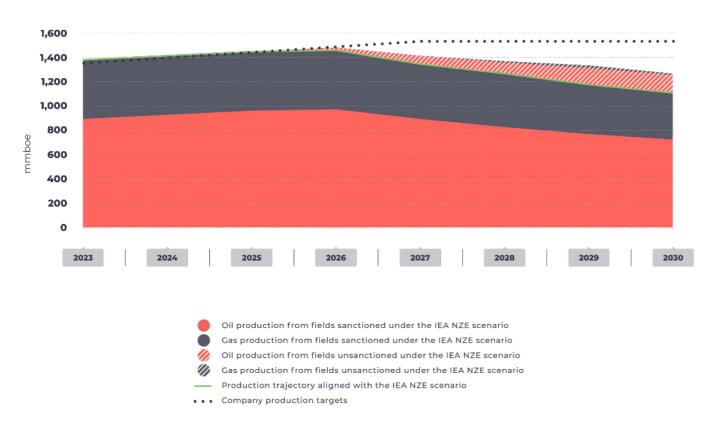
In 2030, with ExxonMobil's oil and gas production from currently producing fields, under development and under evaluation fields, its production will be 14% higher than what is required to align with the NZE scenario.

In 2030, with ExxonMobil's 2027 oil and gas production target and with the hypothesis that ExxonMobil maintain its production at plateau by 2030, its production will be 39% higher than the level required to align with the NZE.

ExxonMobil has not committed to stop developing new oil and gas projects beyond those already in development and could review its production targets, up or down. Consequently, the level of field-based production indicated in the chart could be conservative and less than ExxonMobil's own projections. ExxonMobil owns 11,411 mmboe of discovered hydrocarbon resources that have not yet entered the field evaluation or development stage. From 2020 to 2022, ExxonMobil spent on average US\$1.4 billion million per year on exploration, which make it the 8th biggest investor in exploration over that period.²⁶

Regarding oil and gas midstream infrastructure, ExxonMobil is also developing 16.9 million tons per annum (Mtpa) of LNG terminal capacity.²⁷

ExxonMobil's oil and gas trajectories (in million barrels of oil equivalent to 2030)



Source: Rystad Energy for oil and gas production and expansion, accessed in March 2023; ExxonMobil's reportings and investor presentations for the company production plans

b. Cash-flow allocation

The future energy mix of a company is determined by its current investment strategy. In the NZE, total energy investment needs to more than double by 2030, with a shift from high carbon energy to clean alternatives. Investment in clean energy, end-use and efficiency more than triple, and nine dollars are spent on clean energy for each dollar spent on fossil fuels by 2030.²⁸ In its 2022 unaudited financial statement released in February 2023,²⁹ ExxonMobil provides some information that show us how the cash flows generated from its operational activities were spent in 2022:

1. ExxonMobil allocated US\$22.6 billion to oil and gas, including US\$17 billion to oil

- and gas upstream, and US\$5.6 billion to other oil and gas activities, that include chemicals and petroleum products sales.³⁰
- 2. ExxonMobil does not report investments dedicated to renewable power generation.
- 3.ExxonMobil provided its shareholders with US\$30.4 billion, through dividend payment (US\$15.2 billion) and share buybacks (US\$15.2 billion).³¹

In 2023, ExxonMobil plans to invest US\$23 billion to US\$25 billion in total, including growth CAPEX in upstream and chemicals. From 2024 to 2027, ExxonMobil forecasts US\$20 billion to US\$25 billion capital expenditure per year.³²

Breakdown of ExxonMobil's 2022 Cash-flows



Source: ExxonMobil 2022 unaudited financial results

c. Decarbonization targets and climate trajectory

ExxonMobil pledged decarbonization targets for 2030 using a 2016 baseline on its operated assets, measured in intensity and absolute terms, and including scope 1 and 2.³³ ExxonMobil does not disclose its energy supply evolution, while it plans to increase its oil and gas production by 2027 and does not have any renewable generation capacity target. Moreover, ExxonMobil does not

disclose any scope 3 target. Therefore, it is not possible to project ExxonMobil emission trajectory.

ExxonMobil relies on CCS: it will capture and offset 50Mtpa of CO2e by 2030. As highlighted by the IPCC, CCS in the energy sector still have limitation to overcome before it can be scaled up and come with limited potential and prohibiting costs. Too high a reliance on such mitigation approaches represents a material risk factor for the company's ability to reach its decarbonization targets.³⁴

ExxonMobil's pledged mitigation targets

Base year	Target year	Reduction target	Net target	Geographical scope	Emission scope	Emission Type
2016	2030	-25%	Yes	World	1 & 2	Intensity
2016	2030	-20%	No	World	1 & 2	Absolute

Source: ExxonMobil's website and reports, as of end of 2022



References

- 1. Defined as fields under evaluation and under development using Rystad Ucube Energy data extracted in March 2023.
- 2. Using Urgewald 2022 <u>Global Oil & Gas Exit List</u>. The list was constructed based on September 2022 Rystad data.
- 3. ExxonMobil, ExxonMobil announces corporate plans to 2027 supports approximately doubling earnings and cash flow potential, reducing emissions, 2021.
- 4. ExxonMobil, ExxonMobil announces ambition for net zero greenhouse gas emissions by 2050, 2022
- 5. Using Urgewald 2022 <u>Global Oil & Gas Exit List</u>. The list was constructed based on September 2022 Rystad data.
- 6. Calculation made using Rystad Energy Ucube with data from March 2023.
- 7. ExxonMobil, ExxonMobil announces full-year 2022 results, 2023.
- 8. ExxonMobil, ExxonMobil announces ambition for net zero greenhouse gas emissions by 2050, 2022
- 9. London School of Economics, <u>Emissions targets in the oil and gas sector: How do they stack up</u>, 2020
- 10. ExxonMobil, 2023 ACS Progress Report, 2023
- 11. IPCC estimates between 500 and 3,600 million metric tons of CO₂ could be removed annually through planting new forests by 2050. See Greenpeace, Net expectations Assessing the role of carbon dioxide removal in companies' climate plans, 2021.
- 12. ExxonMobil, <u>2022 Corporate plan</u>, it's an AND equation Working to meet the world's energy needs <u>AND reduce emissions</u>, 2022
- 13. To meet this criterion, the company must disclose the publicly available 1.5°C no or low overshoot pathway it uses to set its targets. While all oil and gas companies somewhat rely on 1.5°C pathways to conduct analysis and inform their decision making, this does not mean that the targets set are coherent with such a pathway.
- 14. IEA, Net Zero by 2050, 2021.
- 15. IEA, World Energy Outlook 2022, 2022.
- 16. Fracking, ultradeep water and tar sands respectively representing 33.6%, 19.6% and 10.9% of ExxonMobil's oil and gas resources currently being developed. Find out issues related to some unconventional oil and gas in the <u>Five of the riskiest oil and gas sectors</u>, 2021.
- 17. More details on the area detailed by Urgewald on the <u>Vaca Muerta</u>, <u>Permian</u>, <u>Alberta</u>, <u>Guyana offshore</u> and <u>Cabo Delgado</u> webpages.
- 18. IPCC, Climate Change 2022 Mitigation of Climate Change, 2022
- See e.g. UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, <u>Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions</u>, November 2022; Race to Zero Expert Peer Review Group, <u>Interpretation Guide. Version 2.0</u>, June 2022, para 5b; NZAOA, <u>Position on the Oil and Gas Sector</u>, March 2023
- 20. IEA, Net Zero by 2050 Data Explorer, 2021
- 21. OECM, Limit global warming to 1.5°C, 2022
- 22. NGFS, Climate scenarios
- 23. The International Institute for Sustainable Development (IISD) filtered the various 1.5°C scenarios provided by the IPCC to ensure they do not rely on volumes of negative emission that are not coherent with the IPCC's own realistic potentials. These "limited negative emissions" pathways are analyzed in the report <u>Lighting the Path</u>.
- 24. ExxonMobil, Corporate plan update, 2022

- 25. To model IEA NZE production trajectory and replicate it by company, we did not integrate merger and acquisition operations as it may increase the production rate due to acquisition of fields that have obtained their FID before 2022.
- 26. Urgewald, Global Oil and Gas Exit List, November 2022.
- 27. Urgewald, Global Oil and Gas Exit List, November 2022.
- 28. The IEA 9 for 1 ratio includes renewable energy, efficiency and end-use but also biomass and other activities (like CCS) that could lead to some environmental harm and/or raise sustainability questions. Relying on a different scope of clean energy investment, BloombergNEF estimates that \$4 must be spent on clean energy for every dollar spent on fossil fuels by 2030, based on energy supply only.
- 29. ExxonMobil, ExxonMobil announces full-year 2022 results, 2023.
- 30. ExxonMobil allocated US\$22.645 billion to oil and gas, including US\$17.002 billion to oil and gas upstream, and US\$5.643 billion to other oil and gas activities, that include chemicals and petroleum products sales
- 31. ExxonMobil provided its shareholders with US\$30.361 billion, through dividend payment (US\$15.206 billion) and share buybacks (US\$15.155 billion).
- 32. ExxonMobil, <u>2022 Corporate plan, it's an AND equation Working to meet the world's energy needs AND reduce emissions</u>, 2022
- 33. ExxonMobil, 2023 ACS Progress Report, 2023
- 34. IPCC, <u>Climate Change 2022</u>, <u>Mitigation of Climate Change</u>, <u>Summary for Policymakers</u>, page 40, 2022.

19

Useful links

Methodology - Glossary

Credits

AdobeStock | Pexels

ASSESSMENT OF EXXONMOBIL'S CLIMATE STRATEGY

Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

contact@reclaimfinance.org

