



ASSESSMENT OF CHEVRON'S CLIMATE STRATEGY

ASSESSMENT OF CHEVRON'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. Chevron in a nutshell today	6
2. Transparency of Chevron's climate plan	7
3. Quality of Chevron's climate plan	10
a. Oil and gas trajectory	10
b. Cash-flow allocation	14
c. Decarbonization targets and climate trajectory	14

INTRODUCTION

Chevron ranked as the 8th biggest oil and gas producer worldwide in 2021 and as the 9th biggest oil and gas upstream developer globally.¹

As one of the largest greenhouse gas emitters worldwide, and one of the six oil and gas majors, Chevron 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, the company pledged to achieve carbon neutrality across its scope 1 and scope 2 operated upstream emissions on an intensity basis by 2050 or sooner.²

Chevron's investors and other financial stakeholders have both a key interest and a crucial responsibility to ensure that the company swiftly aligns with a 1.5°C-compatible pathway. Targeted restriction policies combined with shareholder engagement are important tools to achieve this objective.

The key findings of this briefing are:

- Chevron 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 information is given on the company's

absolute and relative GHG reduction targets covering scope 1, 2 and 3, on its CAPEX plan as well as its 2030 targeted energy mix and production volumes.

- Taking into account Chevron'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 4% higher than what is required to align with the International Energy Agency's 1.5°C-aligned Net Zero Emissions (NZE) scenario.
- Chevron plans to increase its oil and gas production by 3% per year by 2027. If it meets this target and with the hypothesis that Chevron maintains its production at plateau between 2027 and 2030, its production will be 62% higher than the level required to align with the NZE.

- Chevron has not committed to stop developing new oil and gas projects beyond those already in development and 70% of its current expansion plans are in fracking and ultradeep water activities.
- Chevron does not report investments dedicated to renewable power generation.
- Chevron's targeted carbon intensity by 2030 is 39% higher than in the NZE, and 24% more than in the IEA's below 2°C Announced Pledges Scenario (APS). If it meets these targets and reduces its energy supply as per the IEA scenarios, Chevron will have overshoot its share of the 2023-2030 carbon budget by 39% under the NZE, and by 155% under the APS.



1. CHEVRON IN A NUTSHELL TODAY

Chevron accounts for 2.5% of global oil and gas production and 2.4% of short-term expansion plans.³

As of March 1st, 2023:⁴

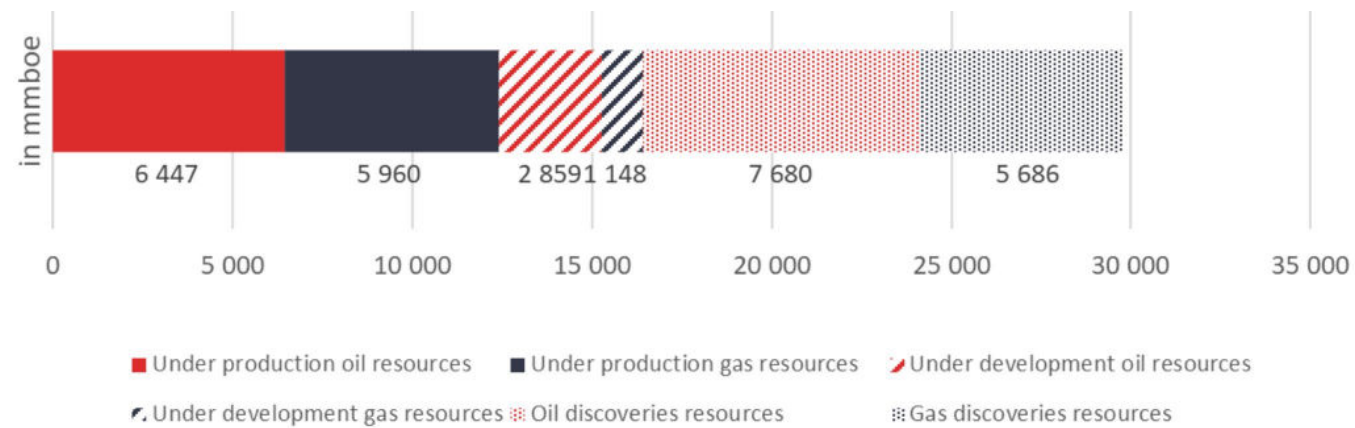
- Chevron had 12,407 million barrels of oil equivalent (mmboe) of resources under production, with 6,447 million barrels (mmbbl) of oil and 5,960 mmboe of fossil gas. This represents the equivalent of 11.2 years of production at 2022 levels.
- Chevron also had 4,008 mmboe of resources under development or field evaluation, including 2,859 mmbbl of oil and 1,148 mmboe of fossil gas. This represents 3.6 years of production at 2022 levels.

- Chevron holds 13,366 mmboe of oil and fossil gas discoveries, including 7,680 mmbbl of oil and 5,686 mmboe of fossil gas. This represents 12.1 years of production at 2022 levels.

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

In 2022, Chevron extracted 627 mmbbl of oil and 467 mmboe of gas. Chevron's refinery throughput was 549 mmbbl, and refined product sales were 954Mt.⁵ Chevron does not report any renewable power generation.

Chevron's oil and gas resources
(based on current resources in million barrels of oil equivalent)



Source: Rystad Energy, accessed in March 2023

2. TRANSPARENCY OF CHEVRON'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 2021, Chevron published interim decarbonization targets for 2028.⁶

While Chevron 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, Chevron's decarbonization intensity target for scope 3 emissions is for 2028, with no further information beyond then. Scope 1 and 2 emissions targets are only for upstream production beyond 2028. Chevron does not indicate any absolute emissions target.

The table below summarizes Chevron's disclosure (or lack of disclosure) for some key transition indicators. It does not provide a global assessment of the transparency and completeness of Chevron's transition plan, but rather focuses on basic indicators that should form the foundations of any oil and gas major's transition plan.

Assessment of the transparency of Chevron's climate plan

Does Chevron 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	<ul style="list-style-type: none"> Chevron only publishes relative targets. Last intensity decarbonization target on scope 3 emissions is for 2028, without any information beyond then. Scope 1 and 2 emissions targets beyond 2028 are only for upstream production.
Contribution of carbon capture along the company's value chain to emission reduction targets	Partially	<ul style="list-style-type: none"> Chevron indicates it uses CCUS and offsets in its portfolio carbon intensity calculation and a 2030 CCUS and offset target but its targets do not differentiate between GHG captured in its value chain and emissions offset.
Contribution of offsets to the emission reduction targets, and offsetting approaches ⁷		<ul style="list-style-type: none"> The US major does not clarify the different offsetting approaches taken.
Capital expenditure (CAPEX) breakdown by activity, and by production maintenance and growth	No	<ul style="list-style-type: none"> Chevron provides information on its 2023-2027 forecasted CAPEX but does not indicate the breakdown of CAPEX per activity nor the split between growth and maintenance CAPEX.
2030 targeted energy mix and production volumes	No	<ul style="list-style-type: none"> Chevron does not report its 2030 total energy supply projections or its 2030 future energy mix Oil and gas production trajectory is not disclosed beyond 2027.
Reference scenario used to define the climate targets ⁸	No	

Source: 2022 FY Financial statements and 2021 20-F, 2022 and 2023 Investor presentations, Chevron for 2021 report

3. QUALITY OF CHEVRON'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.⁹ It was used as the reference scenario in the World Energy Outlook (WEO) 2021 and was updated in the WEO 2022 published in October 2022.¹⁰ 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), Chevron is the 9th top global oil and gas upstream developer. 52% of its expansion plans did not obtain their Final Investment Decision (FID) before 2022 and then are overshooting the IEA NZE scenario. Chevron is increasingly tapping into unconventional fracking and ultra-deep water resources that account for 70.4% of its current development

of oil and gas resources.¹¹ Among the main projects under development today are fields located in the Vaca Muerta basin in Argentina and in the shale Permian basin.¹²

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.

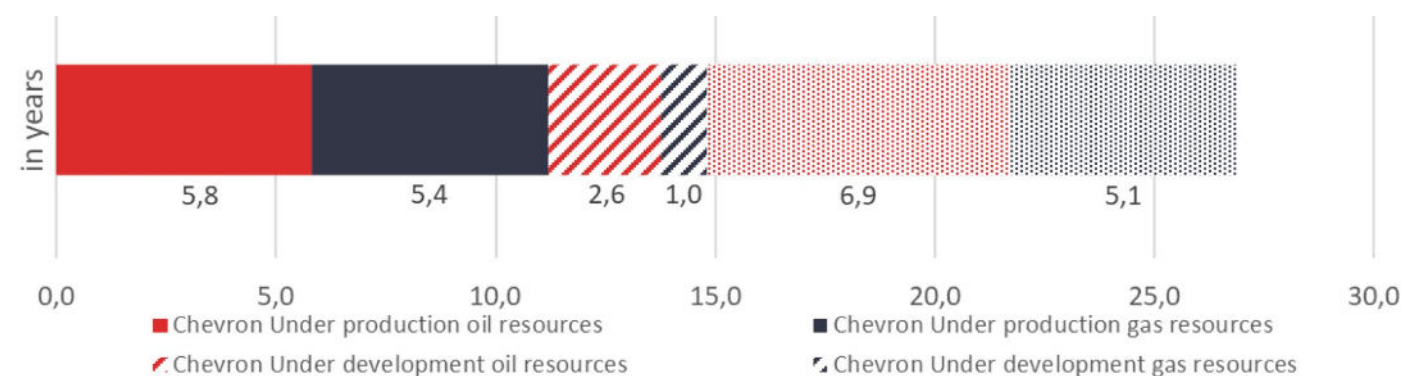
The completion of some projects that can swiftly enter production and operate for a limited time only – mainly shale oil & gas projects – is not expressly forbidden in the WEO 2022 version of the NZE. The IEA notably stresses that the invasion of Ukraine

“ I am also calling on CEOs of all oil and gas companies to be part of the solution. They should present credible, comprehensive and detailed transition plans in line with the recommendations of my High-Level Expert Group on net-zero pledges.

These plans must clearly detail actual emission cuts for 2025 and 2030, and efforts to change business models to phase out fossil fuels and scale up renewable energy.”

**Antonio Guterres,
Secretary-General of the United Nations,
March 2023**

Chevron's oil and gas resources
(based on current resources and 2022 level of production)



Source: Rystad Energy, accessed in March 2023



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.¹³ 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.¹⁴

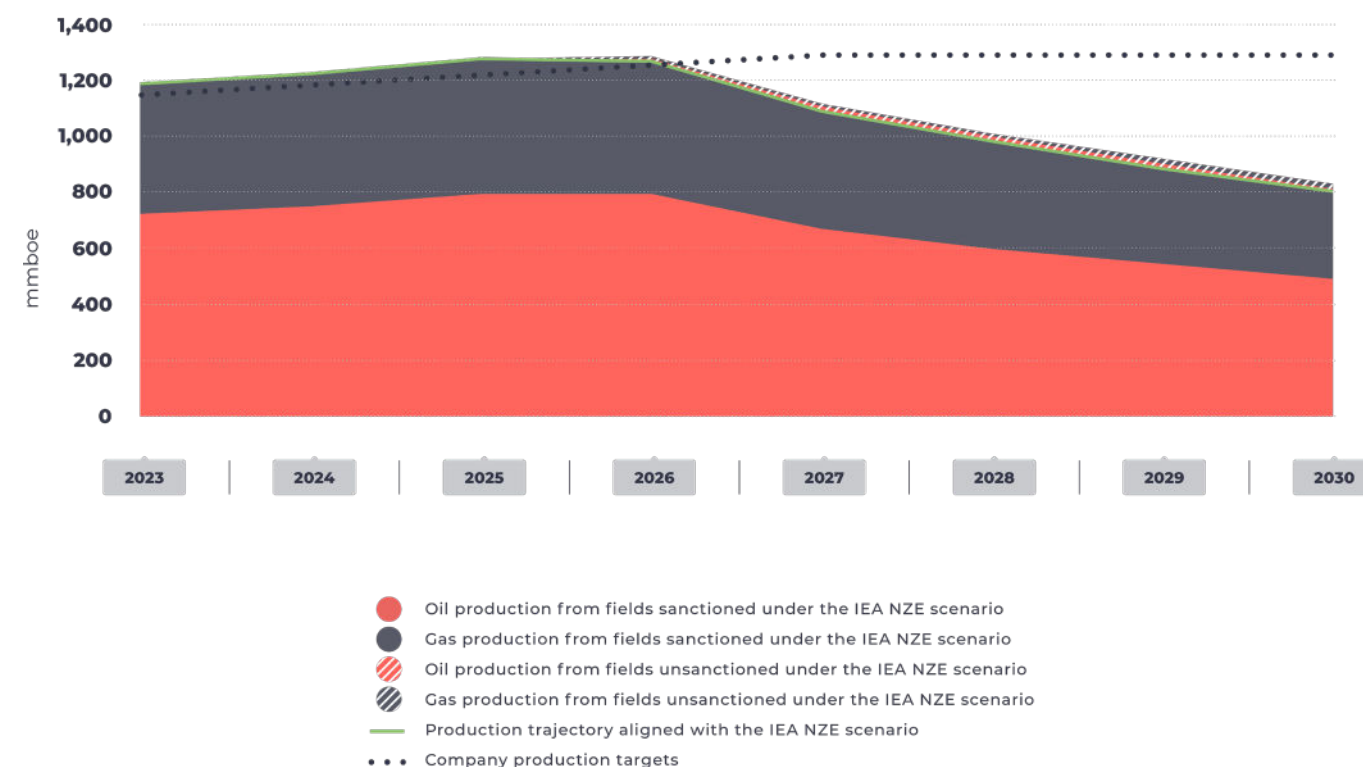
Oil and gas production should decrease by 21% and 6% respectively during the decade according to the NZE scenario.¹⁵ However, without developing any new oil and gas fields and extracting only its resources that are already under production, Chevron has enough resources to produce the equivalent of 11.2 years of oil and gas production at its 2022 level. Chevron’s resources under

development and field evaluation will provide Chevron the equivalent of another 3.6 years of production at its 2022 production level. If Chevron exploits all its oil and gas discoveries, Chevron will have enough resources to produce the equivalent of a further 12.1 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. Other prominent 1.5°C scenarios with no or low overshoot also show oil and gas production declining by 2030. These include the One Earth Climate Model (OECM),¹⁶ the Network for Greening the Financial System (NGFS) Net-Zero scenarios,¹⁷ and IPCC 1.5°C with no or low overshoot scenarios filtered to limit the reliance on negative emissions to reasonable volumes.¹⁸

The following chart compares Chevron’s planned oil and gas production level in 2030 (indicated with a black cross - Chevron plans to increase its production by 3% per

**Chevron’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; Chevron’s reportings and investor presentations for the company production plans

year by 2027)¹⁹ with the level that would be considered aligned with the NZE scenario. That level aggregates production from its producing fields and its under-development fields that obtained FID before 2022.²⁰ As Chevron does not communicate on its future production, we assumed it will plateau from 2027 to 2030. 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, Chevron will have to increase its oil and gas production beyond its current short-term expansion plans. That means Chevron will have to develop part of its discoveries and/or to buy new fields.

In 2030, with Chevron's oil and gas production from currently producing fields, under development and under evaluation fields, its production will be 4% higher than what is required to align with the NZE scenario.

In 2030, with Chevron's 2027 oil and gas production target and with the hypothesis that Chevron maintain its production at plateau by 2030, its production will be 62% higher than the level required to align with the NZE.

Chevron 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 Chevron's own projections. Chevron owns 13,366 mmboc of discovered hydrocarbon resources that have not yet entered the field evaluation or development stage. From 2020 to 2022, **Chevron spent on average US\$1.4 billion per year on exploration**, which makes it the 9th biggest investor in exploration over that period.²¹

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 2030.²² In its 2022 unaudited financial statement released in February 2023,²³ Chevron provides some information that show us show the cash flows generated from its operational activities were spent in 2022:

1. Chevron allocated US\$15.3 billion to oil and gas, including US\$12.5 billion to oil and gas exploration and production, and US\$2,9 billion million to other oil and gas activities, that include refining and petroleum products sales.²⁴
2. Chevron does not report investments dedicated to renewable power generation.
3. Chevron provided its shareholders with US\$22.4 billion, through dividend payment (US\$11.1 billion) and share buybacks (US\$11.3 billion).²⁵

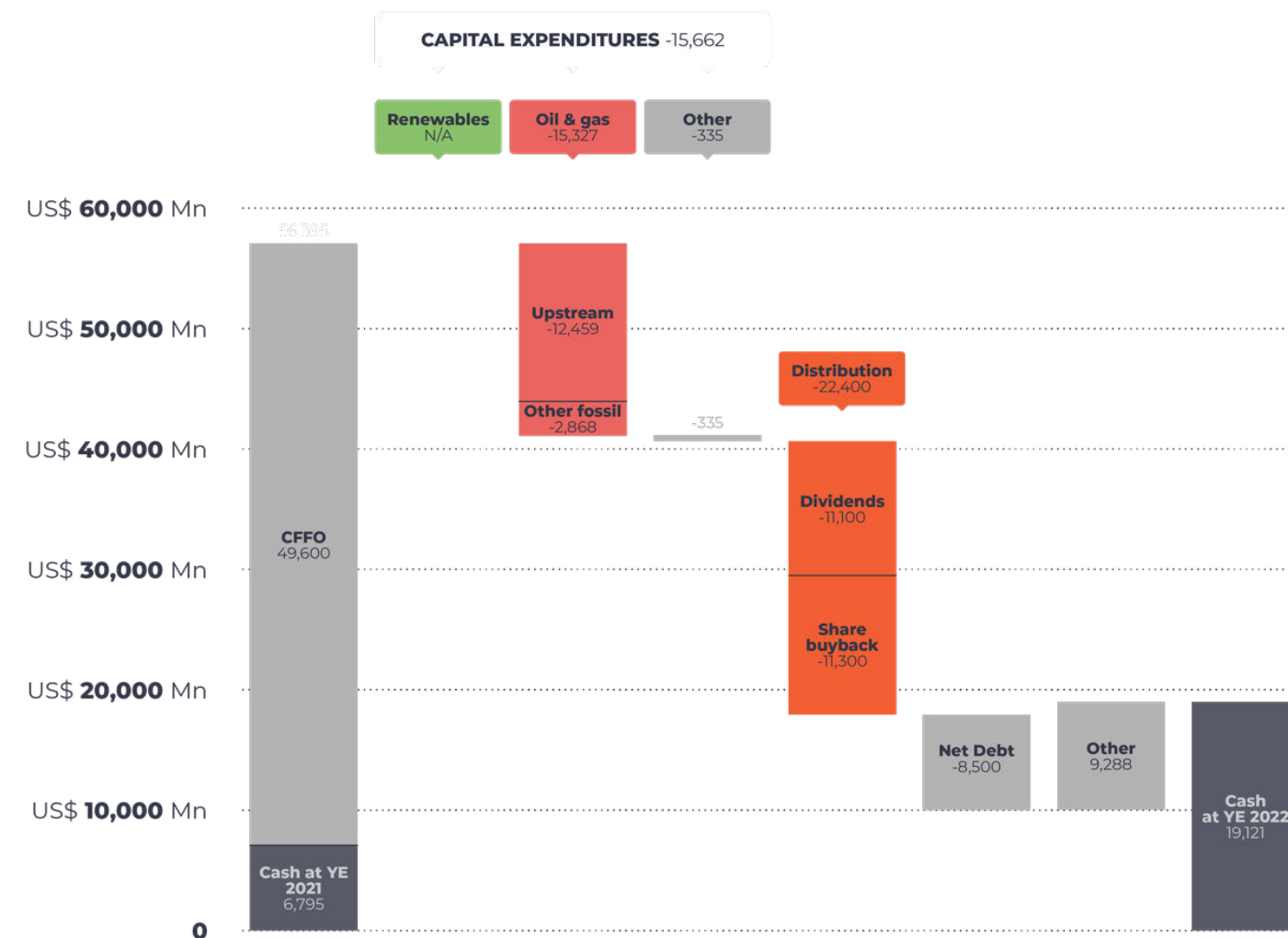
c. Decarbonization targets and climate trajectory

Chevron pledged mitigation targets for 2028 using a 2016 baseline, measured in intensity terms only, and including scope 1, 2 and 3.²⁶

Chevron does not communicate on its 2030 energy supply.

Using the IEA energy supply data from the 1.5°C NZE scenario and the below 2°C "Announced Pledges Scenario" (APS) from the World Energy Outlook 2022, Reclaim Finance has calculated Chevron's greenhouse gas emissions overshoot. We assumed that Chevron will follow the IEA scenario pathways for total global energy supply. In the NZE scenario total energy supply decreases by 9.1% between 2022 and 2030 and in the APS scenario, it increases by 1.6% in the same period. Our analysis is likely to be conservative: while Chevron does not give a projection for its 2030 energy supply, we know that Chevron oil and gas production target is significantly higher than what is forecasted in the NZE scenario.

Breakdown of Chevron's 2022 Cash-flows



Source: Chevron 2022 unaudited financial results

In our hypothesis, we assume that Chevron reaches its target with a decrease of both its scope 1, 2 and 3 carbon intensity by 5% by 2028.

Chevron relies on CCS: it will capture 25Mtpa 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.²⁷ Too high a reliance on such mitigation approaches represents a material risk

factor for the company's ability to reach its decarbonization targets.²⁸

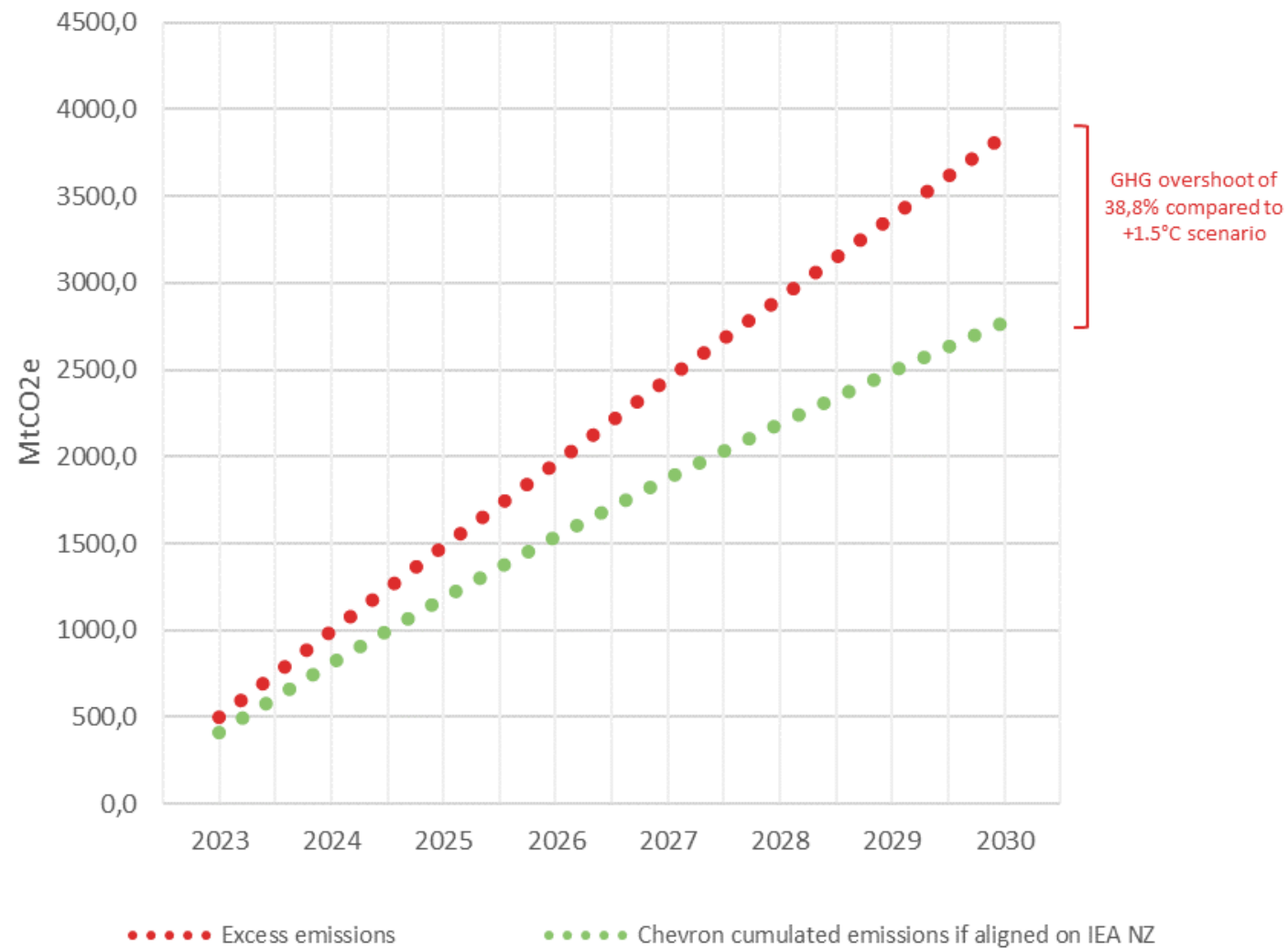
Chevron's targeted carbon intensity would remain respectively 39.2% and 24.5% higher than in the NZE and APS by 2030. If it meets these targets and reduces its energy supply as per the IEA NZE scenario, Chevron will have overshoot its share of the 2023-2030 carbon budget by 38.8% under the NZE, and by 15.5% under the APS.

Chevron's pledged mitigation targets

Base year	Target year	Reduction target	Net target	Geographical scope	Emission scope	Emission Type
2016	2028	-5%	Yes	World	1 & 2 & 3	Intensity

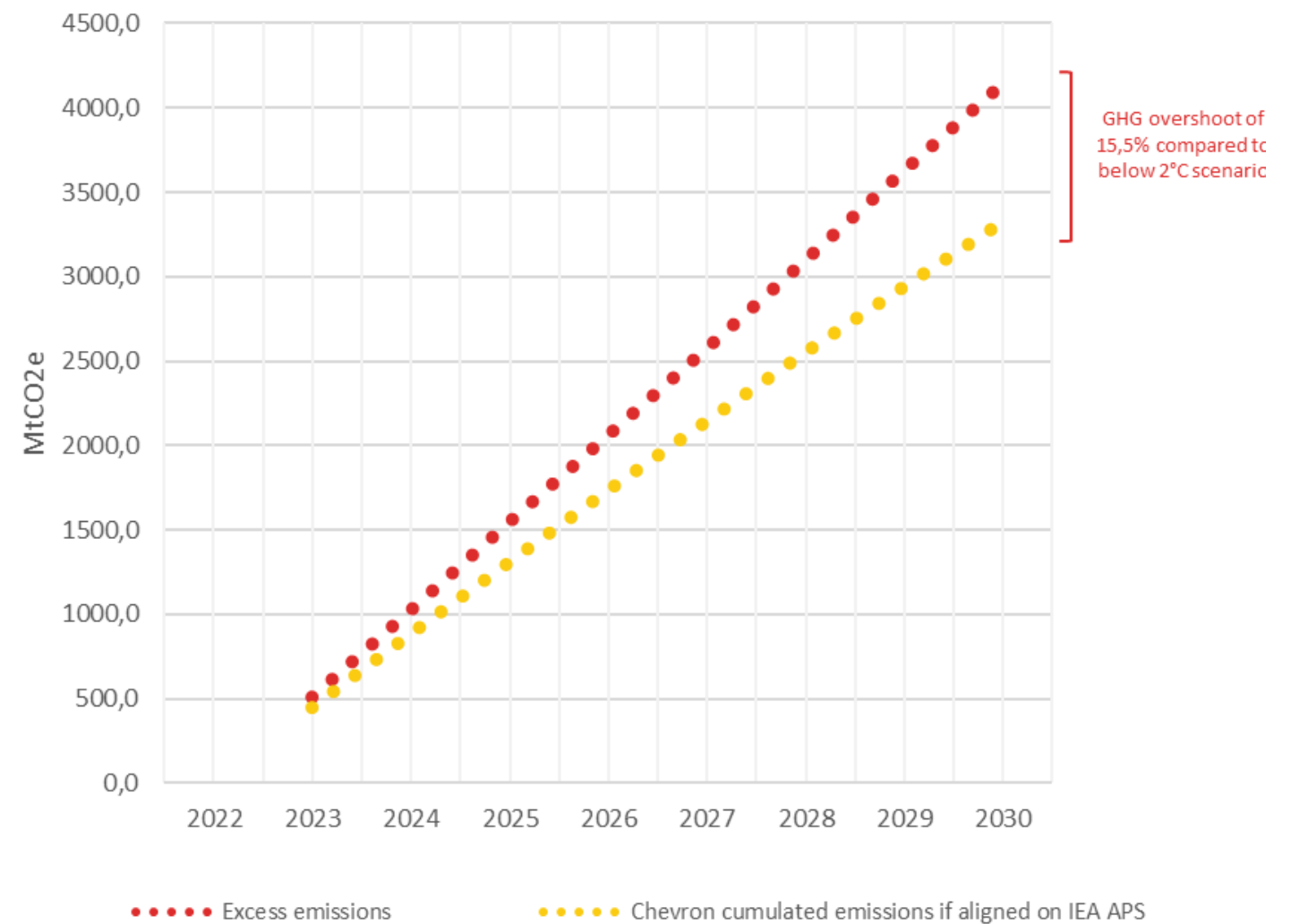
Source: Chevron's website and reports, as of end of 2022

2023-2030 Chevron's GHG emissions compared to the NZE pathway (in million tons of CO₂e to 2030)



Calculations based on data from company's disclosed data and scenario data taken from IEA's NZE and APS scenarios. See the methodology section below for more details on these calculations.

2023-2030 Chevron's GHG emissions compared to the below 2°C pathway (in million tons of CO₂e to 2030)



Calculations based on data from company's disclosed data and scenario data taken from IEA's NZE and APS scenarios. See the methodology section below for more details on these calculations.

References

1. Defined as fields under evaluation and under development using Rystad Ucube Energy data extracted in March 2023.
2. Chevron, [Chevron sets net zero aspiration and new GHG intensity target, 2021](#)
3. Using Urgewald 2022 [Global Oil & Gas Exit List](#). The list was constructed based on September 2022 Rystad data.
4. Calculation made using Rystad Energy Ucube with data from March 2023.
5. Chevron, [Fourth quarter and full year 2022 results, 2023](#).
6. Chevron, [Chevron sets net zero aspiration and new GHG intensity target, 2021](#)
7. 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](#).
8. 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.
9. IEA, [Net Zero by 2050, 2021](#).
10. IEA, [World Energy Outlook 2022, 2022](#).
11. Fracking and ultradeep water respectively representing 57.5% and 12.9% of Chevron's oil and gas resources currently being developed. Find out issues related to some unconventional oil and gas in the [Five of the riskiest oil and gas sectors, 2021](#).
12. More details on the area detailed by Urgewald on the [Vaca Muerta](#) and [Permian](#) webpages.
13. IPCC, [Climate Change 2022 - Mitigation of Climate Change, 2022](#)
14. See e.g. UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, [Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions](#), November 2022; Race to Zero Expert Peer Review Group, [Interpretation Guide. Version 2.0](#), June 2022, para 5b ; NZAOA, [Position on the Oil and Gas Sector](#), March 2023
15. IEA, [Net Zero by 2050 Data Explorer, 2021](#)
16. OECM, [Limit global warming to 1.5°C, 2022](#)
17. NGFS, [Climate scenarios](#)
18. 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 [Lighting the Path](#).
19. Chevron, [Chevron Investor Day, 2022](#)
20. 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.
21. Urgewald, [Global Oil and Gas Exit List](#), November 2022.
22. 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.
23. Chevron, [Fourth quarter and full year 2022 results, 2023](#).
24. Chevron allocated US\$15.327 billion to oil and gas, including US\$12.459 billion to oil and gas explo-

ration and production, and US\$2.868 billion to other oil and gas activities, that include refining and petroleum products sales.

25. Chevron provided its shareholders with US\$22.400 billion, through dividend payment (US\$11.100 billion) and share buybacks (US\$11.300 billion).
26. Chevron, [Sustainability report, 2021](#)
27. Chevron, [Chevron 2023 Investor Presentation, 2023](#)
28. IPCC, [Climate Change 2022, Mitigation of Climate Change, Summary for Policymakers, page 40, 2022](#).

Useful links

[Methodology - Glossary](#)

Credits

AdobeStock | Pexels

ASSESSMENT OF CHEVRON'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

