ASSESSMENT OF REPSOL’S CLIMATE STRATEGY
TABLE OF CONTENTS

Introduction 4

1. Repsol in a nutshell today 6

2. Transparency of Repsol’s climate plan 7

3. Quality of Repsol’s climate plan 10
   a. Oil and gas trajectory 10
   b. Cash-flow allocation 14
   c. Decarbonization targets and climate trajectory 16
INTRODUCTION

Repsol ranked as the 43rd biggest oil and gas producer worldwide in 2021 and as the 39th biggest oil and gas upstream developers globally.\(^1\)

As one of the largest greenhouse gas emitters worldwide, and one of the main oil and gas companies, Repsol 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 its 2019 earnings announcements, the company was the first big oil and gas company to pledge to achieve carbon neutrality by 2050 or sooner.\(^2\)

Repsol’s investors and other financial 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:

- Repsol 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 CAPEX plan, as well as on the contribution of carbon capture along the company’s value chain and of offsets to the emission reduction targets.
- Taking into account Repsol’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 33% higher than what is required to align with the International Energy Agency’s 1.5°C-aligned Net Zero Emissions (NZE) scenario.
- Repsol plans to increase its oil and gas production to 620 kboe per day by 2025 and stated that it will maintain this level of production by 2030. If it meets this target, its production will be 68% higher than the level required to align with the NZE.
- Repsol has not committed to stop developing new oil and gas projects beyond those already in development and around 80% of its current expansion plans are in fracking, ultradepth water and Arctic activities.
- For every euro invested in renewable energy in 2022, Repsol invested more than 4 euros in oil and gas.
- For every euro invested in renewable energy in 2022, more than 3 euros were distributed to shareholders through dividends and share buyback.
- Repsol’s renewable energy development should not represent more than a quarter of the group’s CAPEX by 2025.
- Repsol’s targeted carbon intensity by 2030 is 30% higher than in the NZE, and 16% 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, Repsol will have overshot its share of the 2023-2030 carbon budget by 30% under the NZE, and by 16% under the APS.
1. REPSOL IN A NUTSHELL

TODAY

Repsol accounts for 0.5% of global oil and gas production and 0.5% of short-term expansion plans.\(^3\)

As of March 1st, 2023:\(^4\)

- Repsol had 1,879 million barrels of oil equivalent (mmboe) of resources under production, including 715 million barrels (mmbbl) of oil and 1,164 mmboe of fossil gas. This represents the equivalent of 9.4 years of production at 2022 levels.

- Repsol had 1,093 mmboe of resources under development or field evaluation, including 660 mmbbl of oil and 433 mmboe of fossil gas. This represents 5.5 years of production at 2022 levels.

- Repsol holds 1,403 mmboe of oil and fossil gas discoveries, including 86127 mmbbl of oil and 542 mmboe of fossil gas. This represents 7 years of production at 2022 levels.

In 2022, Repsol extracted 68 mmbbl of oil and 133 mmboe of fossil gas. Beyond exploration and production, Repsol is also active in other segments such as midstream, refining and processing, renewable and gas power, hydrogen, and retail.\(^5\)

Repsol’s renewable portfolio is composed in majority of hydroelectric, solar photovoltaic and wind energy. Repsol possesses 1.65 Gigawatt (GW) of renewable energy installed capacity, 2.6 GW of capacities under development\(^6\) and 2.7 GW offtake secured renewable energy.

Repsol has 2.2 GW capacity of gas power installed capacity and has no gas plant under development.

Repsol’s oil and gas resources
(based on current resources in million barrels of oil equivalent)

<table>
<thead>
<tr>
<th>Resources</th>
<th>Mmbbl</th>
<th>Mmboe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>715</td>
<td>1,164</td>
</tr>
<tr>
<td>Development</td>
<td>660</td>
<td>433</td>
</tr>
<tr>
<td>Discoveries</td>
<td>861,27</td>
<td>542</td>
</tr>
</tbody>
</table>

Source: Rystad Energy, accessed in March 2023

2. TRANSPARENCY

OF REPSOL’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.

The net zero pathway was detailed in its 2021 announcement\(^7\) and updated in its 2022 announcement.\(^8\)

While Repsol 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, Repsol discloses the avoided emissions due to offsets in its emission reduction pathway only with a 2026 target. Regarding its investments, Repsol does not disclose its 2030 forecasted total CAPEX further that what was disclosed in its 2023 guidance and 2021-2025 strategic plan.\(^9\) Such information is key to identify the energy transition strategy planned by the company, and therefore the credibility of emission reduction goals.

The table below summarizes the level of disclosure on a few key transition indicators by Repsol. It does not provide a comprehensive assessment of the transparency and completeness of Repsol’s transition plan, but rather focuses on basic indicators that should be at the foundations of any oil and gas company transition plan.
## Assessment of the transparency of Repsol’s climate plan

<table>
<thead>
<tr>
<th>Does Repsol publish detailed information about the following indicators up to 2030?</th>
<th>Yes - No</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute &amp; relative GHG emissions reduction targets covering scope 1, 2 and 3</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Contribution of carbon capture along the company’s value chain to emission reduction targets</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Contribution of offsets to the emission reduction targets, and offsetting approaches</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Capital expenditure (CAPEX) breakdown by activity, and by production maintenance and growth</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2030 targeted energy mix and production volumes</td>
<td>Partially</td>
<td></td>
</tr>
<tr>
<td>Reference scenario used to define the climate targets</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

- Repsol plans to use CCS along its value chain but does not state any CCS target.\(^{10}\)
- Repsol highlights the importance of offsetting and NBS12 in their strategy without stating any target.
- Repsol discloses its 2021-2025 total CAPEX forecasts, with CAPEX dedicated to oil and gas and the share of growth CAPEX, but aggregates its renewable CAPEX at the "low carbon generation" level, that includes CCGT.\(^{13}\)
- Repsol does not report its 2030 total energy supply projections.
- Repsol discloses its forecasted oil and gas production in 2025\(^ {14}\) and informed previously that it aims to maintain its oil and gas production at current level.
- The breakdown between oil and gas is not reported.
- Repsol discloses its 2025 and 2030 renewable capacity target.\(^ {15}\)
- Repsol uses the IEA SDS and NZE scenarios for its scope 3 carbon intensity targets, without clearly indicating in what extent these scenarios are considered.\(^ {16}\)

Source: 2022 FY Financial statements and 2021 20-F, 2022 and 2023 Investor presentations
3. QUALITY OF REPSOL’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. 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. 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), Repsol is the 39th top global oil and gas upstream developer. 73% of its expansion plans did not obtain their Final Investment Decision (FID) before 2022 and then are overshooting the IEA NZE scenario. Repsol is increasingly tapping into unconventional oil and gas resources, mostly fracking, ultradeep water and Arctic drilling. Unconventional resources account for 82.5% of oil and gas resources currently being developed by the company. Among the main projects under development today are offshore fields located in Guyana.

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

“...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

Repsol’s oil and gas resources
(based on current resources and 2022 level of production)

Source: Rystad Energy, accessed in March 2023
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.

Oil and gas production should decrease by 21% and 6% respectively during the decade according to the NZE scenario. However, without developing any new oil and gas fields and extracting only its resources that are already under production, Repsol has enough resources to produce the equivalent of 9.4 years of oil and gas production at its 2022 level. Repsol’s resources under development and field evaluation will provide Repsol the equivalent of another 5.5 years of production at its 2022 production level. If Repsol exploits all its oil and gas discoveries, Repsol will have enough resources to produce the equivalent of a further 7 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 overshoot also show oil and gas production declining by 2030. These, include the One Earth Climate Model (OECM), the Network for Greening the Financial System (NGFS) Net-Zero scenarios, and IPCC 1.5°C with no or low overshoot scenarios filtered to limit the reliance on negative emissions (CCS, NBS…) to reasonable volumes.

The following chart compares Repsol’s planned oil and gas production level in 2030 (indicating a black cross - Repsol plans to increase its oil and gas production to 620 kboe per day by 2025 and stated that it will maintain this level of production by 2030) 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. 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, Repsol will have to increase its oil and gas production beyond its current short-term expansion plans. That means Repsol will have to develop part of its discoveries and/or to buy new fields.

In 2030, with Repsol’s oil and gas production from currently producing fields, under development and under evaluation fields, its production will be 33% higher than what is required to align with the NZE scenario.

In 2030, with Repsol’s current oil and gas production target, its production will be 68% higher than the level required to align with the NZE.

Repsol 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 Repsol’s own forecasts. Repsol owns 1,403 mmboe of discovered hydrocarbon resources that have not yet entered the field evaluation or development stage. From 2020 to 2022, Repsol spent on average US$313 million per year on exploration.

Regarding oil and gas midstream infrastructure, Repsol is also developing 2.3 million tons per annum (Mtpa) of LNG terminal capacity.
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.

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

1. Repsol operating investments in renewable energy amounted to €762 million.
2. Repsol allocated €3.2 billion to oil and gas, including €2.1 billion to oil and gas upstream activities of which €319 million in exploration. €1 billion was dedicated to other oil and gas activities that include refining, petrochemical activities, and trading.

In total, for every euro invested in renewable energy, more than 4 euros are invested in oil and gas. This means that for every euro invested in fossil fuels, less than 25 cents were invested in sustainable renewable energies.

3. Repsol provided its shareholders with €2.7 billion, through dividend payment (€1 billion) and share buybacks (€1.7 billion). In total, for every euro invested in renewable energy, more than three euros are distributed through dividends and share buybacks.

Repsol plans to invest in average €3.8 billion per year from 2021 to 2025, including €2.6 billion in oil and gas. €1.6 billion will be invested in its upstream segment, of which 71% will be dedicated to new fields or redevelopment and 9% dedicated to exploration. €1 billion per year is dedicated to low carbon generation that include renewables energy as well as CCGT. Through 2030, Repsol’s growth CAPEX should be dedicated to the renewable part as Repsol plans to grow its renewable energy and to maintain its cogenerations and CCGT capacity.

It is hard to assess the increase in CAPEX dedicated to renewables because of the lack of detail on Repsol’s short-term CAPEX disclosure. However it is clear CAPEX will mainly be dedicated to oil and gas, with renewables representing no more than 25% of CAPEX in total by 2025.

Due to its capital expenditure strategy, Repsol aims to have a renewable capacity of 6 GW by 2025 and 20 GW by 2030. Its strategy relies on an acquisition strategy of assets and companies. Assuming the company meets its targets, Repsol’s maximum renewable share of its energy supply mix would remain under 22% in 2030.
Repsol pledged mitigation targets for 2025 and 2030 using a 2016 baseline, measured in intensity terms, on scope 1, 2 and 3 for 2025 and targets measured in intensity and absolute terms on scope 1 and 2 for 2030.

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 Repsol’s greenhouse gas emissions overshoot.

We assumed that Repsol 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: Repsol does provide indications regarding its projection for its 2030 energy supply, aiming for an oil and gas production target significantly higher than what is forecasted in the NZE scenario.

In our hypothesis, we assume that Repsol reaches its targets with a decrease of both its scope 1, 2 and 3 carbon intensity emissions by 15% by 2025 and its scope 1, 2 and 3 carbon intensity emissions by 28% by 2030.

Repsol relies on CCS to support its decarbonization plan: 4% of the company carbon intensity reduction by 2030 would be achieved using them. As highlighted by the IPCC, CCS in the energy sector still has limitations to overcome before it can be scaled up and comes 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.  

Repsol’s targeted carbon intensity would remain respectively 30.0% and 16.3% 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, Repsol will have overshot its share of the 2023-2030 carbon budget by 29.9% under the NZE, and by 16.3% under the APS.

### Repsol’s pledged mitigation targets

<table>
<thead>
<tr>
<th>Base year</th>
<th>Target year</th>
<th>Reduction target</th>
<th>Net target</th>
<th>Geographical scope</th>
<th>Emission scope</th>
<th>Emission Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2025</td>
<td>-7%</td>
<td>Yes</td>
<td>World</td>
<td>1 &amp; 2 &amp; 3</td>
<td>Intensity</td>
</tr>
<tr>
<td>2016</td>
<td>2025</td>
<td>-55%</td>
<td>Yes</td>
<td>World</td>
<td>1 &amp; 2</td>
<td>Absolute</td>
</tr>
<tr>
<td>2016</td>
<td>2025</td>
<td>-30%</td>
<td>Yes</td>
<td>World</td>
<td>1 &amp; 2 &amp; 3</td>
<td>Absolute</td>
</tr>
<tr>
<td>2016</td>
<td>2025</td>
<td>-14%</td>
<td>Yes</td>
<td>World</td>
<td>1 &amp; 2 &amp; 3</td>
<td>Intensity</td>
</tr>
</tbody>
</table>

Source: Repsol’s website and reports, as of end of 2022
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. Using Urgewald 2022 Global Oil & Gas Exit List. The list was constructed based on September 2022 Rystad data.
2. Repsol, Repsol adjusts its results to become a net zero emissions company by 2050, 2020.
3. Using Urgewald 2022 Global Oil & Gas Exit List. The list was constructed based on September 2022 Rystad data.
5. Repsol, 2022 Integrated management report, 2023
6. Defined as the sum of the assets under construction and the assets for which the FID has been reached.
10. Repsol stated that “We are currently pursuing new technological developments that will allow us to advance the energy transition in an orderly and sustainable manner: Carbon Capture, Storage and Use (CCUS) technology” on Repsol’s Technology, one of the main ways to curb climate change webpage.
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. Nature-Based Solutions
13. Combined Cycle Gas Turbine
14. Repsol, Stepping up the transition - Driving growth and value, 2023
15. 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.
16. Repsol indicates that “In this decade, until 2030, Repsol will follow a decarbonization pathway that is based on specific business targets proposed in its Strategic Plan (November 2020) and bolstered in October 2021. In the long term (2031-2050), the decarbonization pathway is built on Company projections considering the environmental conditions of the three IEA scenarios [NZE, SDS and APS]” in its 2022 Integrated management report, 2023.
19. Fracking, Ultradeep water and Arctic oil and gas respectively represent 38% and 24% and 16.7% of Repsol's oil and gas resources currently being developed or under field evaluation. Find out issues related to some unconventional oil and gas in the Five of the riskiest oil and gas sectors, 2021.
20. More details on the area detailed by Urgewald on the Guyana offshore webpage.
21. IPCC, Climate Change 2022 - Mitigation of Climate Change, 2022
22. 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 3.0; June 2022, para 5b; NZAOA, Position on the Oil and Gas Sector, March 2023
23. IEA, Net Zero by 2050 Data Explorer, 2021
24. OECM, Limit global warming to 1.5°C, 2022

Useful links
Methodology - Glossary

Credits
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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.

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