ESG DAY 2023

Is Repsol aligned with a 1.5°C pathway?

Luis Cabra
EMD Energy Transition, Technology, Institutional Affairs & Deputy CEO
Disclaimer

ALL RIGHTS ARE RESERVED
©REPSOL, S.A. 2023

This document contains information and statements that constitute forward-looking statements about Repsol. Such estimates or projections may include statements about current plans, objectives and expectations, including statements regarding trends affecting Repsol's financial condition, financial ratios, operating results, business, strategy, geographic concentration, production volumes and reserves, capital expenditures, cost savings, investments and dividend policies. Such estimates or projections may also include assumptions about future economic or other conditions, such as future crude oil or other prices, refining or marketing margins and exchange rates. Forward-looking statements are generally identified by the use of terms such as "expects," "anticipates," "forecasts," "believes," "estimates," "appreciates" and similar expressions. Such statements are not guarantees of future performance, prices, margins, exchange rates or any other event, and are subject to significant risks, uncertainties, changes and other factors that may be beyond Repsol's control or may be difficult to predict. Such risks and uncertainties include those factors and circumstances identified in the communications and documents filed by Repsol and its subsidiaries with the Comisión Nacional del Mercado de Valores in Spain and with the other supervisory authorities of the markets in which the securities issued by Repsol and/or its subsidiaries are traded. Except to the extent required by applicable law, Repsol assumes no obligation - even when new information is published, or new facts are produced - to publicly report the updating or revision of these forward-looking statements.

This document mentions resources which do not constitute proved reserves and will be recognized as such when they comply with the formal conditions required by the system “SPE/WPC/AAPG/SPEE Petroleum Resources Management System” (SPE-PRMS) (SPE – Society of Petroleum Engineers).

In October 2015, the European Securities Markets Authority (ESMA) published its Guidelines on Alternative Performance Measures (APMs). The guidelines apply to regulated information published on or after July 3, 2016. With effect from January 1, 2023, Repsol has revised its financial information reporting model. More details about said change and all the information and breakdowns relative to the APMs used in this presentation are available on Repsol’s website.

This document does not constitute an offer or invitation to purchase or subscribe securities, pursuant to the provisions of the Spanish Law 6/2023, of March 17, of the Securities Markets and Investment Services and its implementing regulations. In addition, this document does not constitute an offer to purchase, sell, or exchange, neither a request for an offer of purchase, sale or exchange of securities in any other jurisdiction.

The information contained in the document has not been verified or revised by the Auditors of Repsol.
Index

01. “As we said yesterday…” (Oct.22)

02. Metrics: the endless debate
   - Scope 3 emissions: based on primary energy and sales
   - Scope 4 emissions: avoided emissions

03. Decarbonization scenarios: Is Repsol following the right path?

04. Net Zero Scope 1+2: a new target

05. Financial disclosure of climate change risks in line with TCFD recommendations

06. Natural capital: a new dimension
01.

“As we said yesterday....”
Next steps to improve Repsol's framework (as of October 22)

- Keep our core net zero 2050 CII reduction pathway with Scope 3 based on primary energy as a firm target under any macro scenario.

- Disclose two additional carbon intensity reduction pathways with Scope 3 based on sales (end-user sales and total sales net of merely traded products).

- Disclosure of the financial impact on Repsol of different long-term scenarios (including 1.5°C scenarios), as recommended by TCFD.

- Continued proactive participation in metric standardization initiatives.

- Continued engagement and transparent reporting of Repsol’s climate framework, while facilitating application of any other stakeholders' frameworks.
02. Metrics

The endless debate
Science-based metrics? the case of scope 3 emissions

- **Upstream**
  - Output
  - Emissions CO\textsubscript{2}e
  - Third parties: Crude

- **Refining**
  - Output
  - Emissions CO\textsubscript{2}e
  - Third parties: Refined products

- **Sales**
  - Total Sales
  - Sales to Non-End Users
  - Sales to End-Users
  - Emissions CO\textsubscript{2}e

**Risk of double counting emissions**

- **Scope 3 based on products obtained from own oil & gas production**: a firm target under any scenario
  - Strategic decision, capex-intensive with long-term return, risk of stranded assets

- **Scope 3 based on downstream sales**: projections anchored in IEA SDS and NZE macro scenarios
  - Commercial decision, capex-light activity, driven by adaptation to demand
  - Avoid multiple counting: sales to end-users, or at least total sales net of merely traded products
CII reduction pathways w/ scope 3 based on sales

CII reduction vs. 2016 (%)

- Product sales to end-user
- Primary Energy
- Product Sales (total)*

Offsets

(*) Net of purely traded products (bought, and sold to non-end-user without further transformation)
Scope 4 emissions: avoided emissions

Decarbonization metrics to be fit-for-purpose, representing the actual impact on emissions, e.g.:

- A new CCGT that displace coal power would reduce emissions
- A new wind farm that displace nuclear would not reduce emissions
- A new wind farm that serves incremental power demand would reduce carbon intensity of energy supply

**Impact of scope 4 renewable power contribution in Repsol decarbonization path (CII reduction):**

<table>
<thead>
<tr>
<th>Year</th>
<th>CII reduction contribution (p.p.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>2030</td>
<td>5-7%</td>
</tr>
<tr>
<td>2040</td>
<td>9-11%</td>
</tr>
<tr>
<td>2050</td>
<td>13-16%</td>
</tr>
</tbody>
</table>

- Repsol’s methodological approach only considers avoided emissions in regions and years in where more carbon-intensive energy is displaced (as per IEA scenario projections)

**Source:** Sustainable Recovery. IEA. June 2020
03. Decarbonization scenarios

Is Repsol following the right path?
Is Repsol aligned with a 1.5°C pathway?

IPCC 1.5°C scenarios vs IEA NZE and Repsol path

The Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), published in 2022, reports more than 200 scenarios consistent with a temperature increase limited to 1.5°C in 2100, of which 28* achieve emissions neutrality by 2050 and the rest later.

* Scenarios that reach >95% net emission reduction by 2050 from the energy sector vs 2021
Is Repsol aligned with a 1.5°C pathway?

O&G production reduction for selected IPCC 1.5°C scenarios* vs Repsol path**

(*) Selected net-zero IPCC scenarios that reach >95% net emission reduction by 2050

(**) Repsol net equity production
04.

Net Zero Scope 1+2
A new target
Repsol’s new target: **net zero scope 1+2* by 2050**

In support of COP28 for a collective O&G sector engagement

**Repsol Scope 1+2 CO₂e emissions (Mton/yr)**

- **2022** -37%
- **Existing Target** -55%
- **New Target** -100%

Base Year for reduction 2016  
(*) Operated CO₂eq absolute emissions
05. Financial disclosure of climate change risks in line with TCFD recommendations
Disclosure of estimates and accounting judgments in Repsol’s financial statements related to climate change, decarbonization and energy transition risks

Disclosure of asset impairment sensitivity to commodity prices as per IEA NZE scenario

Disclosure of Risks and Opportunities in non-financial disclosing (climate change and energy transition section of Consolidated Management Report 2022)

Net present value (NPV) impact of different O&G demand scenarios according to IEA APS, SDS and NZE, and NPV impact of O&G prices

Probabilistic analysis of NPV variation

- APS
- SDS
- NZE

P25 APS: +23%
25% 20% 15% 10% 5% 0% -5% -10% -15% -20% -25% P25 SDS: +20%
P25 NZE: +14%

P25 APS: -15%
P25 SDS: -17%
P25 NZE: -19%

P25 APS: -15%
P25 SDS: -17%
P25 NZE: -19%

(Please refer to Integrated Management Report 2022)
06.
Natural capital
A new dimension
Natural capital: a new dimension

"We cannot address biodiversity loss without tackling climate change, but it is equally impossible to tackle climate change without addressing biodiversity loss" (European Commission’s President)

Context

COP 15 on Biodiversity (Montreal-Kuming):
- Vision: “Living in harmony with nature by 2050”
- Target: Nature positive by 2030

TNFD initiative on-going, mirroring TCFD methodology (Governance, Strategy, Risks & Opportunities, Metrics & Objectives)

Natural capital valuation

Water
- Repsol’s Roadmap to 2050 developed:
  - Industrial sites: Zero freshwater withdrawal in 2050, with an interim target of 30% reduction by 2035
  - Unconventional E&P assets: commitment setting on-going

Biodiversity
- Repsol’s commitment: not undertake operational activities within the boundaries of the UNESCO World Heritage List (Cultural, Natural and mixed sites), as listed Jan.1st, 2023

Repsol methodology for economic valuation and management of impacts on natural capital
- Recognized by relevant institutions (*)
- Methodology made public and commercial digital tool co-developed with Minsait (more info: repsolsma@repsol.com)
- Applied in Repsol’s assets and projects

(*) Reviewed and endorsed by the UNEP-WCMC (UN Environment Programme World Conservation Monitoring Center) and The Capitals Coalition. Recognized as a relevant methodology by the Transparent Project and as a best practice for biodiversity valuation by the EU Business@Biodiversity Platform within the Align Project.
THANK YOU
ESG DAY 2023