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ESG DAY 2023

Is Repsol aligned with a 1.5°C pathway?

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

The Repsol Commitment
Net Zero Emissions
by 2050

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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.

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01.

“ As we said yesterday….”

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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 1.5ºC 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

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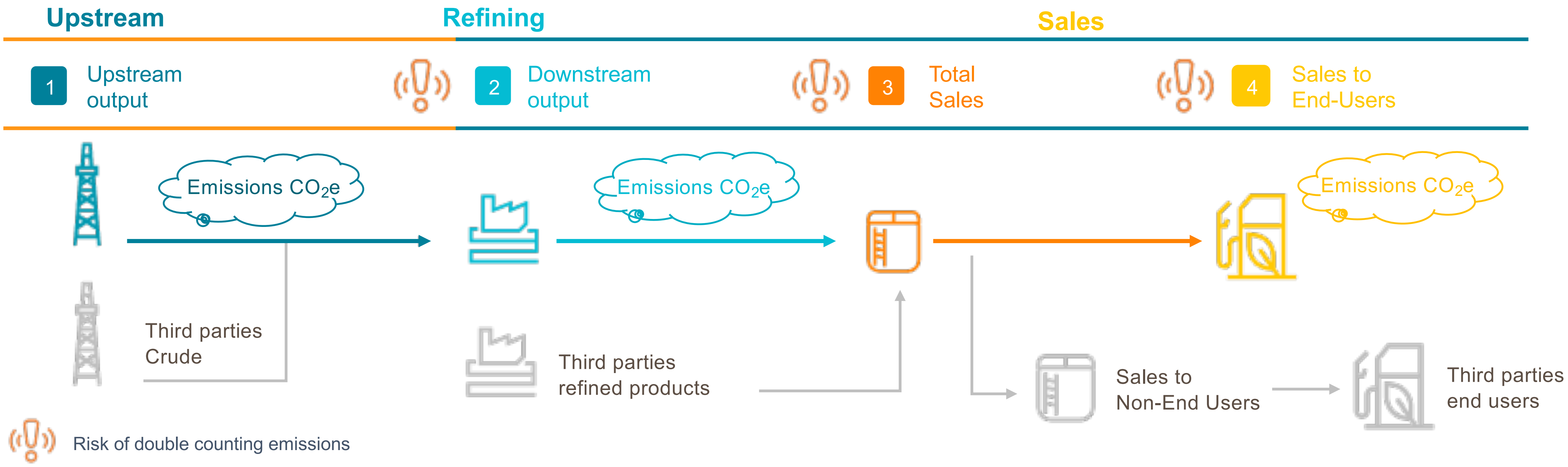
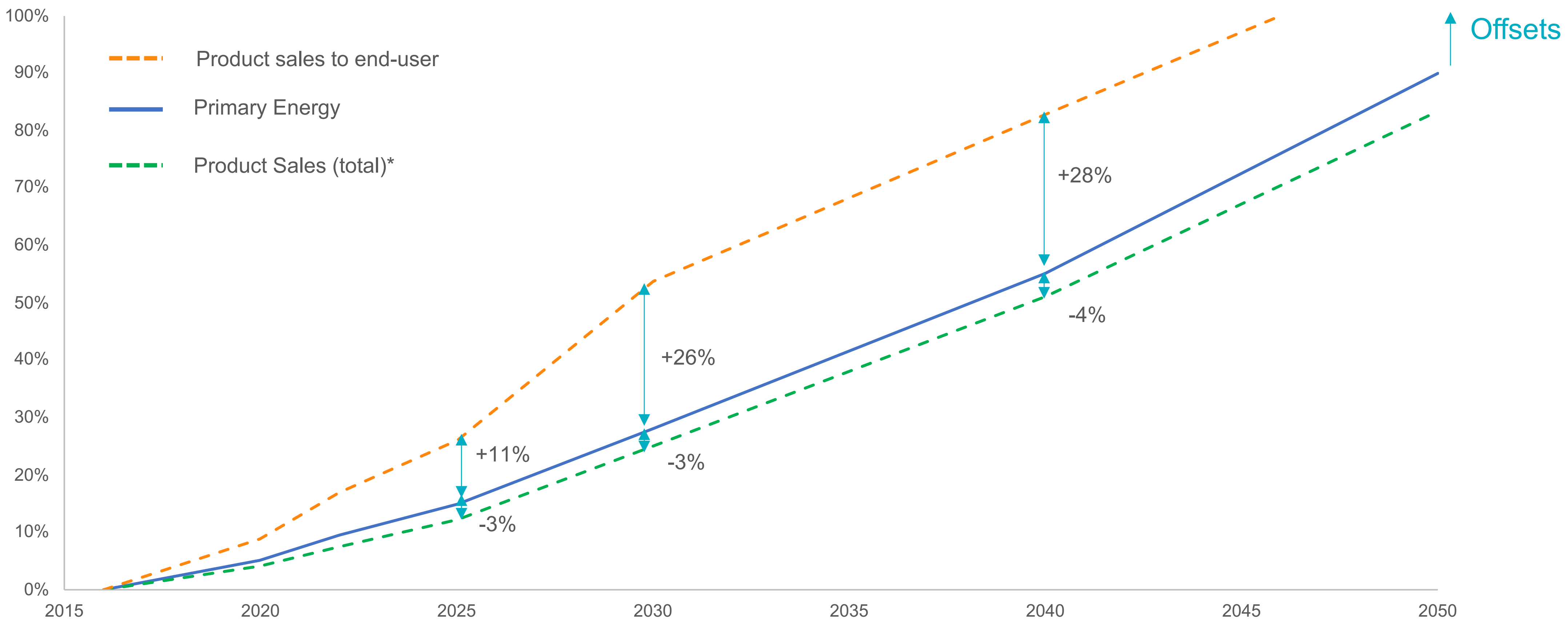
Science-based metrics? the case of scope 3 emissions



- 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 (%)



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

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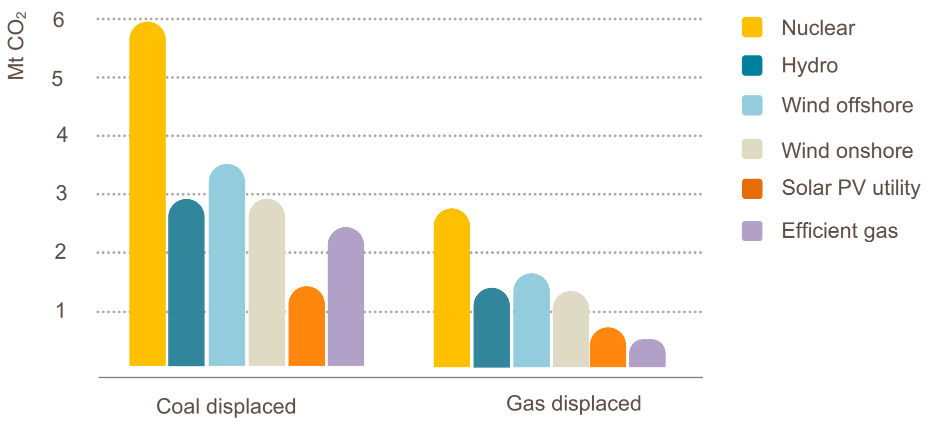
Scope 4 emissions: avoided emissions

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

Figure 2.8 **Annual direct CO_2 emissions avoided per 1 GW of installed capacity by technology and displaced fuel**



Nuclear power avoids more CO_2 emissions per GW of capacity than other fuels.

Notes: Mt CO_2 = million tonnes of carbon dioxide. Efficient gas refers to combined-cycle gas turbines. Applied capacity factors are current global fleet averages for nuclear power, hydro and efficient gas, and global averages for new projects completed in 2019 for wind offshore, wind onshore and solar PV.

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

	2025	2030	2040	2050
CII reduction contribution (p.p.)	<2%	5-7%	9-11%	13-16%

- 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?

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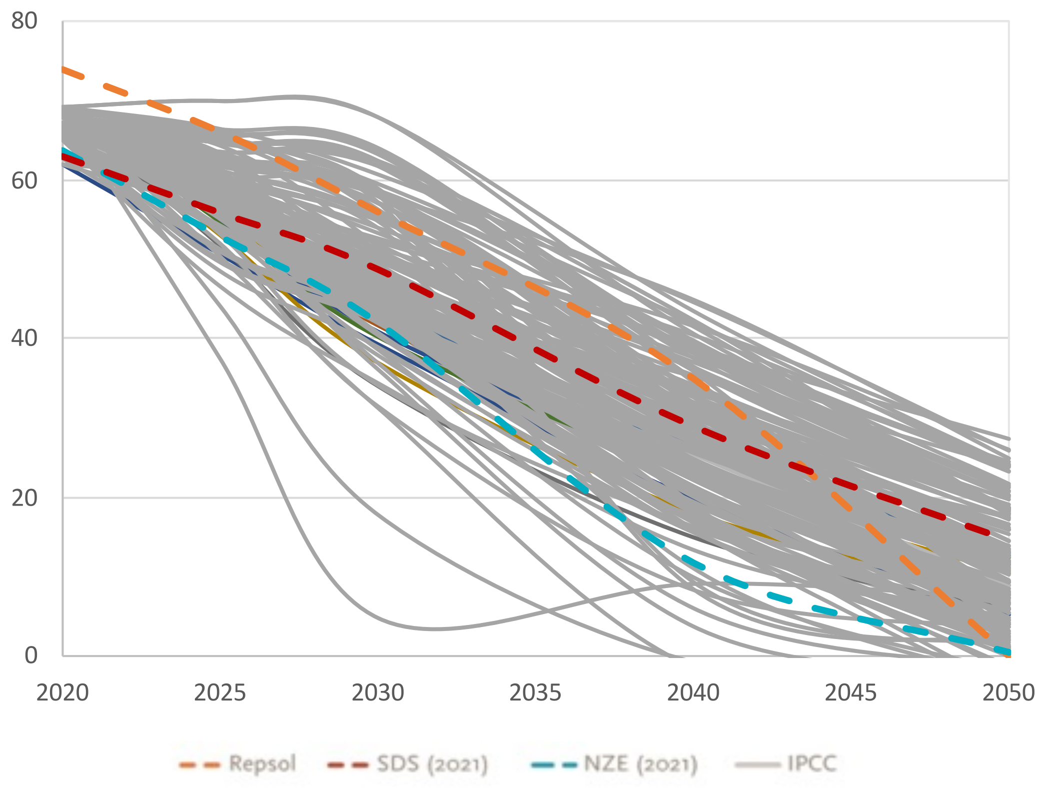
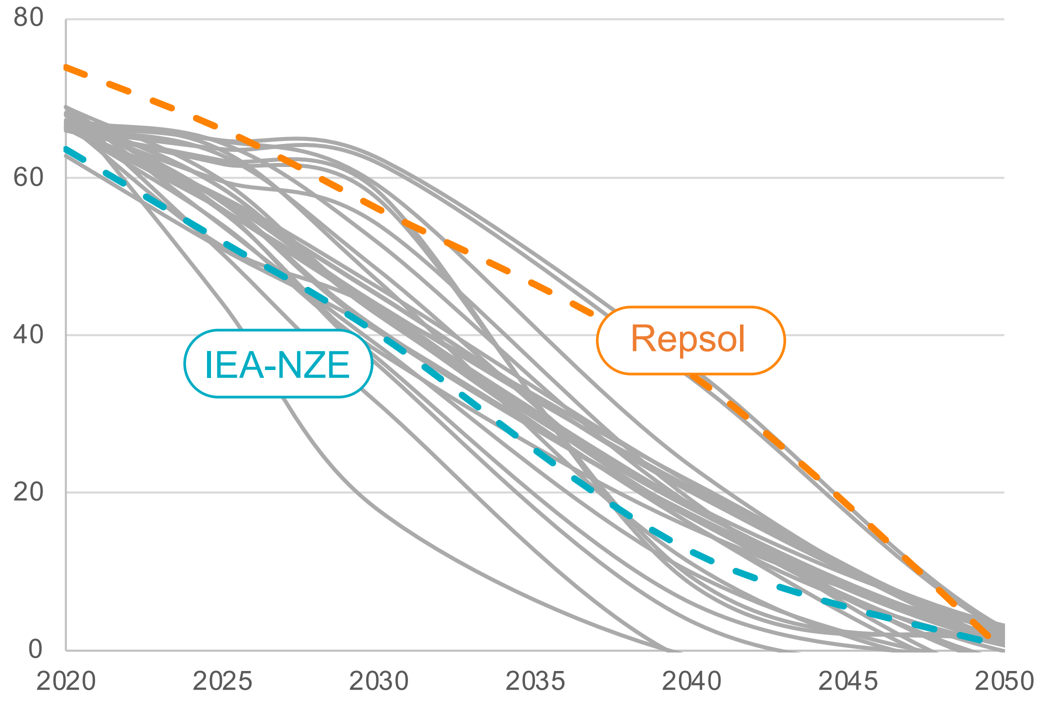
IPCC 1.5ºC scenarios vs IEA NZE and Repsol path

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.

Carbon Intensity (g CO_2e/MJ)



Carbon Intensity (g CO_2e/MJ)



** Scenarios that reach >95% net emission reduction by 2050 from the energy sector vs 2021*

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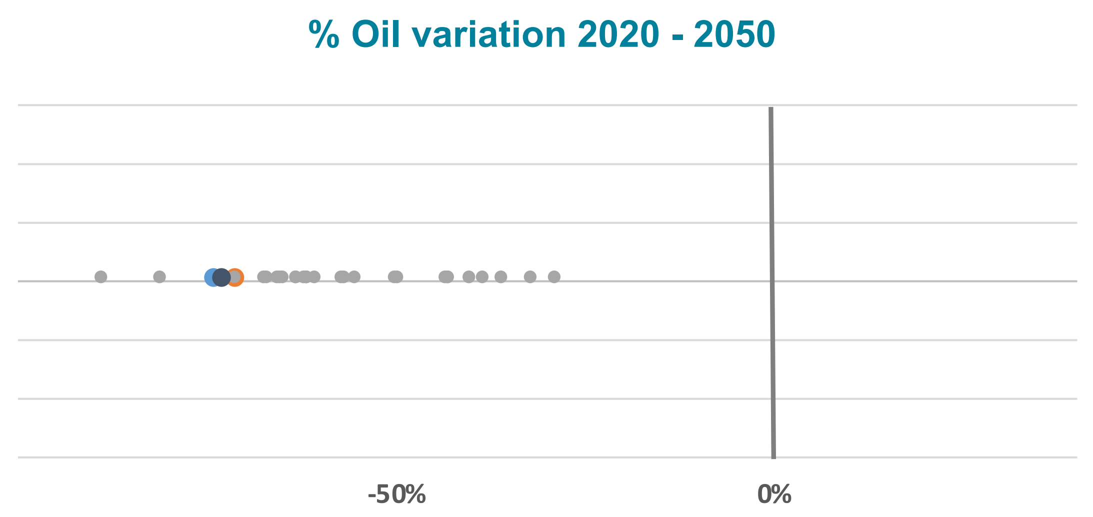
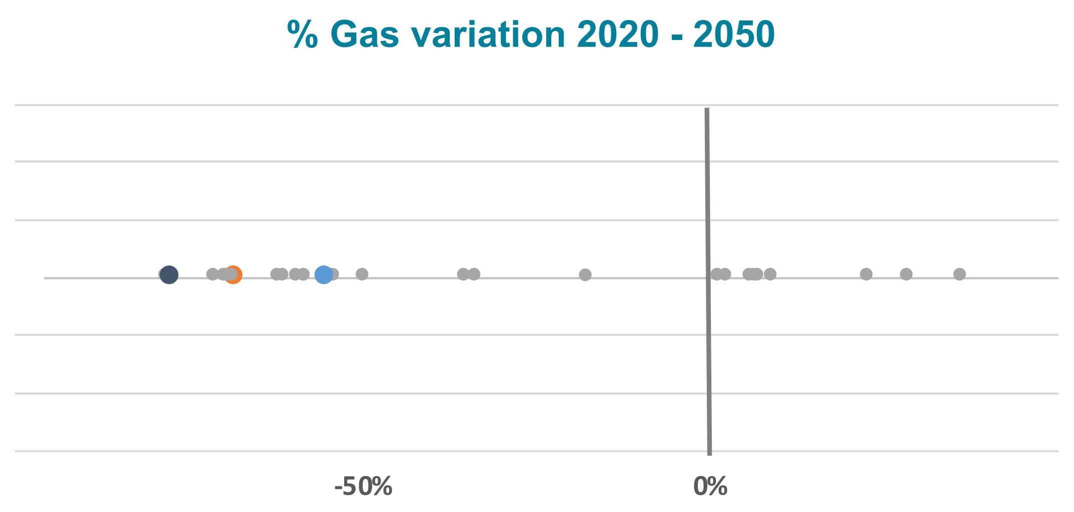
O&G production reduction for selected IPCC 1.5ºC scenarios* vs Repsol path**





Repsol · NZE 2021 · NZE 2023 · IPCC Scenarios

(*) 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

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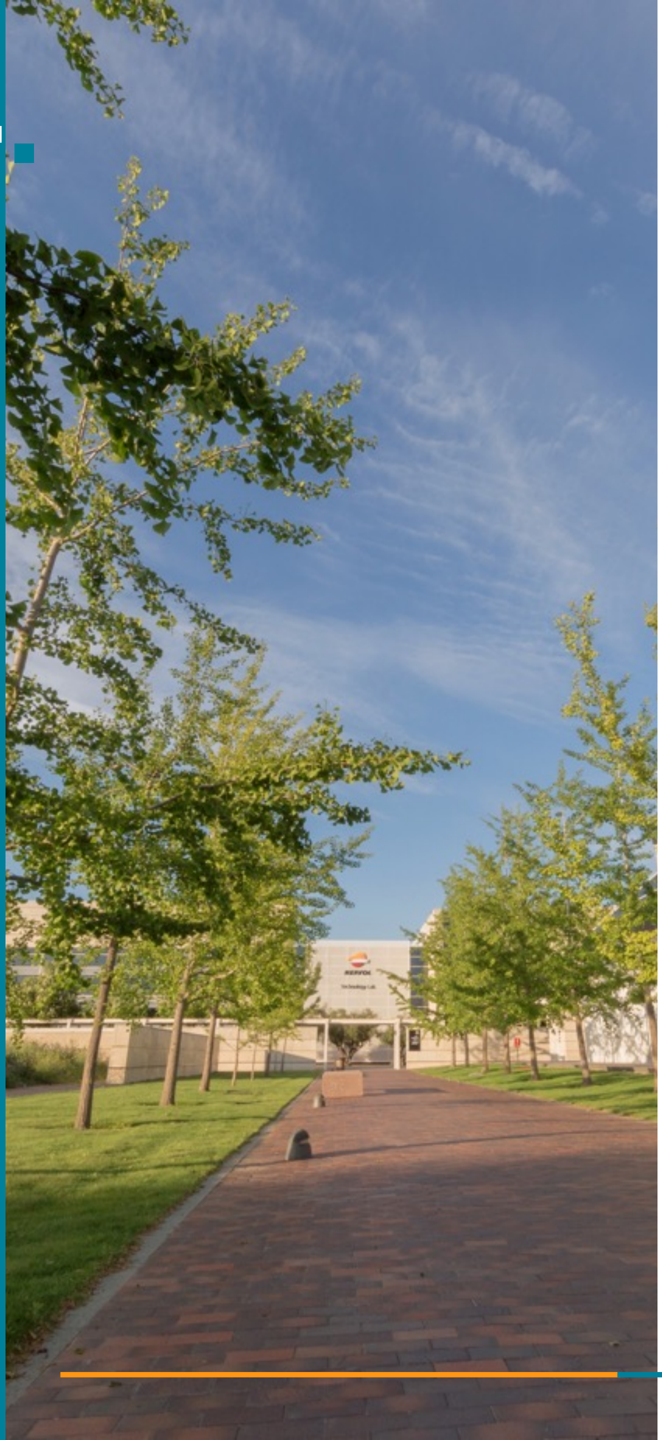
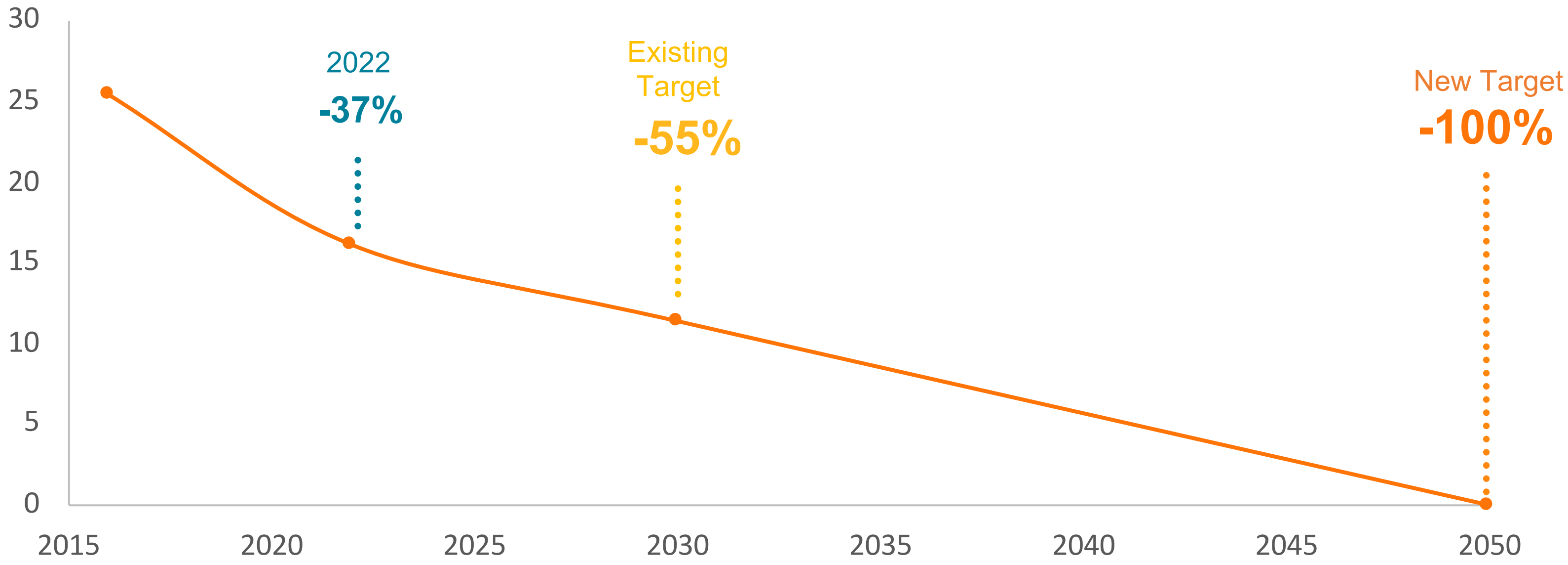


Net Zero Scope 1+2: a new target

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 CO_2e emissions (Mton/yr)*



Base Year for reduction 2016

(*) Operated CO_2eq absolute emissions

05.

Financial disclosure of climate change risks in line with TCFD recommendations

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Disclosing financial risks as per TCFD recommendations

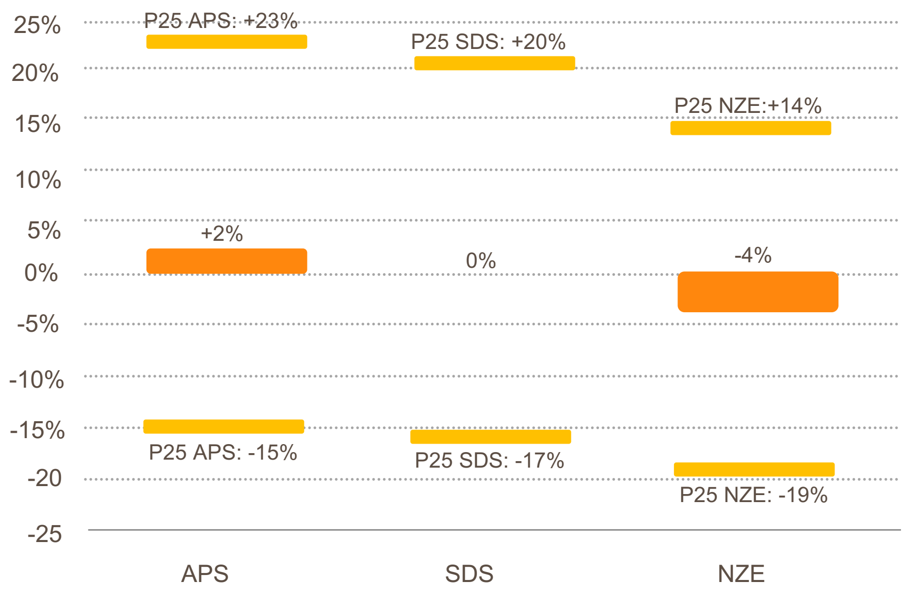
1 Disclosure of estimates and accounting judgments in Repsol's financial statements related to climate change, decarbonization and energy transition risks

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

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

4 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



(Integrated Management Report 2022)

06.

Natural capital
A new dimension

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Natural capital: a new dimension

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Context

"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)

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)

Reads
Capitals Valuation

Natural capital valuation

- 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

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

(*) 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.

COMMITTED TO CONTINUE ENGAGEMENT AND TRANSPARENT DISCLOSURE

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THANK YOU

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