Repsol’s approach to assess the climate credentials of an energy company

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01. How to assess the climate credentials of energy companies?

The energy transition: a complex picture

Greater urgency: the world is not reducing emissions

Europe vs rest of World

Transition or disruption?

Just transition

Geopolitics and dependencies

The energy trilemma: decarbonized, secure and affordable energy mix

Ambition: limiting global warming to 1.5°C and net zero by 2050

Transition costs and carbon price

Sustainable Finance

Industry competitiveness

Technology neutrality

Consumer behaviour

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The world is not reducing emissions

Increase in global emissions
(2019 vs. 2000)

- Exported CO₂
- Lower industrial weight

Weight of Industry in EU GDP (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>20.7</td>
</tr>
<tr>
<td>2005</td>
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<td>16.6</td>
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<tr>
<td>2015</td>
<td>16.9</td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
</tbody>
</table>

Emissions

- Coal
  - +62.0%
- Petroleum
  - +19.5%
- Natural gas
  - +59.5%

- Coal
  - 50% decrease
- Natural gas
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Decarbonization is more than electrification

**Electrons** (Renewables)

**Molecules** (Renewables)

**CO₂ Capture**

- **Liquids**
- **Gases**
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**Principles**

- **Inclusiveness**
  Transition as well as end-state solutions

- **Standardization of metrics**
  Standardized metrics while avoiding over-simplification

- **Expert judgement**
  Transparent disclosing and engagement with stakeholders

**Technology neutrality**
Door opened to all decarbonization options

**Long term uncertainty**
Company ambition and resilience to climate risks under different macro scenarios

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**1.5°C scenarios**

**End-state focus only**
Tech. determinism
Over-simplification

**Transition & end-state focus**
Tech. neutrality
Sophistication

**Sustainability frameworks**

- EU TAXONOMY
- FIT-for-55 (2021)

**Regulations**

- Science Based Targets
- Climate Action 100+
- US IRA - Clean Energy (2022)

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**ESG Day 2022**
01. How to assess the climate credentials of energy companies?

Repsol’s approach

- Assessment of the energy transition strategy of a company (instead of single path/metric or green/brown listing)
- Science-based and comprehensive methodology
- A set of standardized metrics and targets
- Clear differentiation between:
  - Firm targets under any scenario
  - Projections linked to a given macro scenario
- Continuous engagement and detailed disclosing

+ Expert judgement from stakeholders (no single recipe for yes/no aligned)
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Repsol’s set of key metrics and targets

Carbon Intensity reduction (% CO₂e/energy)
- 2025-2030-2040-2050 w/ scope 3 included
- Three metrics for scope 3: primary energy*, end-user sales**, total sales**

Absolute emission reduction (% of CO₂e)
- Scope 1+2 operated 2030’
- Scope 1+2+3 net 2030’

Emission reduction E&P
- Methane intensity 2025 (%methane/gas output)’
- Routine flaring reduction 2025 (%)’
- Emission intensity reduction 2025 (%CO₂/boe)’

Business metrics driving CO₂ emissions
- GW renewable power generation capacity: 2025-2030’, 2040-2050”
- Ton/yr production of renewable liquid fuels: 2025-2030’, 2040-2050”
- GWe production of renewable hydrogen: 2025-2030’, 2040-2050”
- E&P production” (boed)
- Oil processed in refineries” (ton/yr)

Capital allocation (% of total capital allocated to low-carbon)
- % Capex’ 2021-2025, ** 2030-2050
- % Capital employed’ 2030, ** 2040-2050

(*) Firm targets under any scenario  (**) Projections linked to IEA SDS and NZE macro scenarios
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Science-based metrics? the case of scope 3 emissions

- **Upstream**
  - **Output**
  - Emissions CO₂ₑ

- **Refining**
  - **Output**
  - Emissions CO₂ₑ
  - Third parties crude
  - Third parties refined products

- **Sales**
  - Total Sales
  - Sales to End-Users
  - Sales to Non-End Users
  - Third parties end users

**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
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Science-based metrics? 1.5°C scenarios

- Many potential paths to reach 1.5 degrees at the end of the century. IEA NZE scenario is one of them.

  “There are many possible paths to achieve net zero CO$_2$ emissions globally by 2050 and many uncertainties that could affect any of them; the NZE is therefore a path, not the path to net zero emissions” (IEA)

- More than 160 potential paths described by IPCC to reach 1.5 degree at the end of the century, 28 of them net zero by 2050.
How to assess the climate credentials of energy companies?

Next steps for Repsol’s framework improvement

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

Disclose financial impact on Repsol of different long-term scenarios as per TCFD recommendation (including 1.5°C scenarios).

Continued proactive participation in metric standardization initiatives.

Disclose two more carbon intensity reduction pathways with Scope 3 based on sales (end-user sales and total sales net of merely traded products), as projections anchored in “well below 2°C” scenario (IEA SDS) and 1.5°C scenarios (IEA NZE).

Continued engagement and transparent reporting of Repsol’s climate framework, while facilitating application of any other stakeholders’ frameworks.
ESG Day

Keeping engaged

REPSOL

The Repsol Commitment
Net Zero Emissions
by 2050