

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Repsol is an international integrated Oil&Gas Company whose main activity consists of the upstream and downstream business. The Company has become firmly established as one of the most important international companies in the O&G industry operating in more than 35 countries and working towards energy solutions which are responsible with the planet. Regarding the development of new businesses associated with the energy transition, the company is working on developing the gas business, low-emission production and the marketing of gas and electricity. In this sense, Repsol has started to engage in the low-emission electricity production and gas and electricity marketing businesses in Spain through a new brand, Repsol Electricidad y Gas. Moreover, the Company is developing three new renewable energy projects (two wind farms and one photovoltaic plant) aiming an installed capacity of 800 MW.

At Repsol we believe that access to energy is a universal right. Everyone is entitled to economic and sustainable energy sources. Therefore, our obligation is to guarantee a safe and competitive supply while preserving the environment and ensuring a better planet for future generations. We work on solutions that allow society to enjoy a sustainable future with low emissions of greenhouse gases.

The Company has a Carbon Strategy aligned with public policies (regarding CO2 emissions and energy efficiency), reduce the carbon footprint in its entire value chain, and is committed to technological innovation and to continue promoting greater energy efficiency in its operations. We are also continuously monitoring the latest trends and technologies developed in the field of renewable energy, investing in sustainable mobility, and contributing to the reduction of emissions through biofuel production and research.

The Company is engaged in all aspects of the Oil and Gas business, and produces and markets low-emission electricity and natural gas, offering global energy solutions. Its main business activities include the exploration, development and production, of crude oil and natural gas reserves: (1) Crude oil and gas transport by pipeline or in tankers from the production areas to the consumption areas; (2) Refining crude oil to turn it into value added products such as gasoline and diesel; (3) Marketing such products and liquefied petroleum gas (LPG) via, in each case, the petrol station network and the network for distribution to the end customer; (4) Chemicals, from oil derivatives, which produces and sells a wide variety of products ranging from basic petrochemicals to derivatives; (5) lubricants, asphalts and specialties; and renewable production projects.

We develop our activities to become an even more sustainable and competitive company, with a responsible commitment to the environment and to the areas in which we operate. We are decidedly and continuously committed to sustainability as a key factor for creating value, now and in the future.

This is always done by using processes that respond to the strict controls on safety and respect for the environment.

We are committed to technological innovation as the key to building a more efficient, secure, competitive and sustainable energy model. This commitment is assigned to the Repsol Technology Center: a leading European center where we promote R&D+i with high investments every year.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

- Bolivia (Plurinational State of)
- Canada
- Ecuador
- Malaysia
- Norway
- Peru
- Portugal
- Russian Federation
- Spain
- United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

- USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

- Operational control

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

- Upstream
- Downstream
- Chemicals

Other divisions

- Grid electricity supply from renewables
- Carbon capture and storage/utilization

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

- Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The CEO and Repsol's Executive Committee are the highest executive level within the company for taking strategic decisions and setting lines of action with regard to climate change. Specifically, their responsibilities in this regard are the following: (1) They propose climate change strategy and targets, and supervise their implementation (2) They oversee the climate change strategy and periodically review the evolution of GHG emissions and compliance of the climate change mitigation objectives (GHG emission reduction and carbon intensity indicator). Repsol Executive Committee is integrated by the CEO and the Senior C-level Management, and meets regularly (once a month), and at least twice a year (or as often as necessary), review information on execution of the climate change and CO2 emission strategy. EXAMPLE of climate-related decision taken by CEO and Repsol's Executive Committee: In December 2019, the company has set the target to achieve net zero emissions by 2050. Until then, Repsol will progressively reduce its carbon intensity indicator (taking 2016 as the base year, 10% in 2025, 20% in 2030 and 40% in 2040). These targets will serve as a basis for the new Strategic Plan 2020-2025, and will involve directing strategy, activity and investment towards new and more demanding business plans.
Board-level committee	The Board of Directors approves the climate change policy and strategy, as well as the remuneration of the Board and Senior Management linked to the achievement of energy and climate change objectives. EXAMPLE of climate-related decision taken: Repsol announced that it will link 40% of the long-term variable remuneration of its executives and leaders, including the CEO and members of senior management, to targets that will enable the Company to comply with the Paris Agreement and, therefore, with gradual decarbonization, with an ambition of zero net emissions by 2050.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<Not Applicable>	<p>These issues are reviewed and monitored frequently on many levels of the company in addition to the Board of Directors or Executive Committee. (1) The Board of Directors approves the climate change strategy and policy. (2) The Chief Executive Officer and the Executive Committee are responsible of proposing the climate change strategy and goals, as well as supervise the implementation of the strategy and periodically revise GHG emissions and the fulfillment of climate change mitigations goals (reducing GHG emissions and the carbon intensity indicator). (3) The Sustainability Committee supervises and periodically follows up on the climate change strategy and compliance with the associated plans and goals, in addition to the emerging risks relating to the energy transition and climate change. (4) The Audit and Control Committee oversees the effectiveness of the company's risks management and internal control system as a whole and annually supervises emerging risks and climate change as part of the review of Repsol's risks map. (5) The Compensation Committee proposes CEO and Senior Management remuneration linked to the achievement of energy and climate change targets. (6) The Technology Development, Resources and Sustainability Division coordinates and develops the climate change strategy, proposed objectives and action plan monitoring with all business units. (7) The CFO Finance Division periodically monitors the fulfillment of the climate change objectives set out in the Strategic Plan. (8) The Sustainability Division is responsible of the strategic analysis of climate change and technical support for businesses to guarantee the implementation of the strategy. (9) The Audit, Control and Risks Division is responsible for governing and coordinating the process for identifying and assessing climate change risks the Company is expose to in the short, medium and long-term. (10) The Strategy and Planning Division makes the definition of the company strategy, containing the guidelines that Repsol will follow as part of the energy transition. (11) The Businesses are responsible for the implementation of the climate change strategy. Additionally, the Sustainability Division, Finance Division and International Relations Division monitor all developments regarding Sustainable Finance (see C12.3a)</p>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO) <i>The CSO corresponds to the position of the Technological Development, Resources and Sustainability Director</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Sustainability committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Risks Officer (CRO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly
Other committee, please specify (Audit and control committee)	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	Annually

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Technological Development, Resources and Sustainability Managing Director, acting as Chief Sustainability Officer CSO, and reporting directly to the CEO, coordinates the climate change strategy and the development of this strategy with all units involved. This strategy is integrated into in the company's strategy. In addition to the proposal of objectives and monitoring of action plans to reduce Repsol's GHG emissions, it ensures the deployment of it.

The Audit, Control and Risks Division has a systematic process that allows identifying and assessing emerging and climate change risks at the Company in the short, medium and long term. Management of such risks is overseen by the Sustainability Committee and by the Audit and Control Committee, each within the scope of their respective responsibilities.

The Sustainability Committee is a specialized committee within the Board of Directors and have supervisory, reporting, advisory, and proposal functions. The Sustainability Committee is governed by Article 37 of the Company Bylaws and Article 37 of the Regulations of the Board of Directors, which outline its composition, functioning, and competencies. Members of this committee are: 3 Independent Directors and 1 Proprietary Director

It is aware of and orients the Company's policy, objectives and guidelines with respect to environmental, social and safety matters. In 2019, the Committee met four times and discussed the following matters, among others:

- Monitoring of the non-financial information. Integrated Management Report 2018
- Monitoring of the sustainability strategy of the Company: proposal and follow-up of the 2019 objectives, 2018 evaluation and closing of the 2018 objectives.
- Development of the Emerging Risks and Climate Change map.
- Analysis and follow up of the performance on:
 - Safety and Environment: S&E Scorecard, dashboard of indicators and safety and environmental strategy.
 - Community Relations and Human Rights advances
 - Circular Economy Advances.
- Report on ESG analysts and investors (Environmental, Social and Governance).
- Climate Disclosure Project Results and advance in the Task Force on Climate-related Financial Disclosures (TCFD) and the report on Carbon Disclosure Project (CDP).
- Activities related with Energy Transition and Climate Change.
- Repsol Safety Culture.
- Materiality Analysis 2019.
- Emergencies and crisis management procedure.
- Plan to boost Sustainable Development Goals.
- Self-Assessment of the Committee.

In addition, all matters related to climate change were reviewed at all Committee meetings held in 2019.

The Sustainability Division, through the Energy and Climate Change Unit, gives support the Technological Development, Resources and Sustainability Division for the assessment of the climate change strategy and the development of this strategy across all units.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Chief Financial Officer (CFO)	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Management group	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Business unit manager	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Energy manager	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Environment/Sustainability manager	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Facilities manager	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Process operation manager	Monetary reward	Emissions reduction target	All members of Corporate Executive Team and management group have medium and long-term objectives, including compliance with emissions reduction plan and targets that will enable the Company to comply with the Paris Agreement
Other, please specify (Energy/environment engineers&tech staff)	Monetary reward	Emissions reduction target	
Chief Executive Officer (CEO)	Non-monetary reward	Emissions reduction target	Shares (25% of annual variable remuneration)

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	This is the time horizon of the budget
Medium-term	1	5	This is the time horizon of the strategic plan
Long-term	5	30	The long-term time horizon varies depending on the nature and purpose of the prospect. 2030, 2040 and 2050 are the indicative time horizons of risk assessments, which are based on anticipated global and sectoral trends relevant for Repsol. This time horizons are consistent with those of the International Energy Agency and the recent announcement of Repsol of its commitment to be a Net Zero Emissions company by 2050

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Repsol identifies and evaluates risks in three scenarios: short, medium and long term. The short & medium term risk map is the result of a bottom-up process where multiple individual risks are analyzed and then aggregated in order to estimate the overall risk profile. The long term risk map, on the other side, is the result of a top-down process where the overall exposure is quantified and then broken down in order to estimate the contribution of the individual risk factors.

In the short & medium term risk map, Repsol uses a quantitative indicator to rate its risks, which is called severity. This metric is defined as the impact of the 5% probability scenario of any given risk. This impact is a weighted average of the P&L (Profit and Loss) impact (EBIDTA loss in most cases), the impact on the company's reputation, and the impact on people. In order to ensure the integrity and consistency of the risk profile, the number of risks that are analyzed in each Business Unit is linked to their capital employed. This figure is subsequently adjusted based on the marginal severity of the smallest risk in current risk profile. By capping the overall number of risks to be assessed at around 400 risks per year (out of 1,500 identified risks), the marginal severity tends to converge to a rating of around 0.5 (severity can range between 0 and 16.7), and therefore, **in order to select the risks to be analyzed** in depth, substantive strategic impacts are those rated at 0.5 severity. Given that this severity corresponds to a P&L deviation of around USD 5.6 millions in the next 5 years, substantive financial impact is USD 5.6 millions. Once each risk has been analyzed and become part of the company-wide risk profile, the highest visibility is given to those that lie in the first quartile in terms of severity so, **in order to report them**, substantive strategic impacts are those rated at 4.8 severity (boundary between first and second quartiles). Given that this severity corresponds to a P&L deviation of around USD 358 millions in the next 5 years, substantive financial impact is USD 358 millions.

In the long term risk map (where climate change risks account for most of the exposure), as it is based on a top-down assessment, no materiality threshold has been set up. Instead, the overall exposure at each potential scenario (including as a reference the IEA's CP, SP and SD scenarios) is broken down according to the relative contribution of each risk, which is consequently rated in terms of P&L deviation and severity at each reference year: 2030, 2040 and 2050.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

We use a bottom-up approach to build the short & medium term Risk Map, which comprises next year and the whole period of the next 5 years as well, and a top-down approach for the long term one. This process is intended to be executed yearly by default, with more frequent assessment for the main risks and for those whose exposure might presumably have changed since last assessment for any reason. Next we summarize the stages we follow in order to build the short&medium term Risk Map. At the beginning, business and corporate units that manage risk-exposing assets or activities examine changes that have happened since the last revision, and they assess how these changes have modified the business context. Based on the results, they identify and prioritize their risks (and opportunities), in accordance with capital employed and marginal severity threshold criteria, as described in CDP section CC2.1.b. Once the risks have been identified and the substantive ones prioritized, a risk analysis methodology is applied combining both quantitative techniques for the analysis of frequency and economic loss, and qualitative techniques for the analysis of impacts on reputation and people. Once each business or corporate unit has produced its risk map, it's reported to its managers, so that they can make decisions on the controls to be implemented or improved and allocate resources accordingly, taking the risk appetite statements as a reference. The next milestone is the aggregation of the risks contained in the individual risk maps (asset level), in terms of severity and loss, to produce the Company-wide Risk Map (company level), as well as several intermediate consolidated reports. A specific report of sustainability risks is prepared as well, with a chapter of climate change risks where the relative contribution of these risks to the overall risk profile of the company is examined in terms of P&L-deviation and severity. The short & medium term Company-wide Risk Map, reported to the ExCom and the Board, as well as the stochastic simulations of the P&L, are made available for the optimization of key decision-making processes such as the development of the strategic plan and budget. Next we include a CASE STUDY of how this process applies to a physical climate change risk. It refers to the risk of property damage, business interruption or other liabilities due to the exposure to weather events in Repsol's offshore production activities in the Gulf of Mexico. These activities are exposed to acute physical risks (hurricanes). In the last assessment, the risk has been rated at 4,6 severity. Even though the effectiveness of the control that the BU is exercising over the risk has been rated as high, additional improvements have been reported. These improvements can be summarized as adopting a closer engagement with the JV operator, especially in topics such as oil spill response, emergency response and risk prevention systems, including hardware and software. This risk turned out to be the 4th out of 10 risks in terms of severity in the BU Risk Map. In the Company-wide Risk Map, the consolidated risk of "Extreme weather events, non-predictable weather changes and natural disasters", which includes 7 additional individual risks, currently ranks in 16th position considering all consolidated risks in accordance with Repsol risk taxonomy. The process followed to produce the long-term risk map starts with the selection of the International Energy Agency (IEA) scenarios as references of the potential outcomes of climate policies. Each of these scenarios involves a specific evolution of the key variables to which the P&L is sensitive, such as for instance CO2 price or sectoral investments, throughout the period. A probabilistic assessment of the potential scenarios is then performed by a panel of experts and, as a result, a probability distribution is adjusted to simulate the P&L behavior at any possible climate policy scenario, including of course those of the IEA, by 2030, 2040 and 2050. Once the overall long-term effect of climate policy on the P&L has been estimated, an in depth assessment is performed so as to ascertain the individual contribution of the substantive risks. For that purpose, Repsol has developed a specific taxonomy, which includes market, regulatory, physical (acute and chronic), technology, financial and reputational risks, among others, directly related to global warming and climate policy scenarios. Those 10 risks with the highest exposure are considered to be substantive climate risks. In order to select them, the Delphi technique is used to facilitate the experts of the panel reach a consensus. This way, each risk is rated in terms of its contribution to the overall exposure at 2030, 2040 and 2050. In order to mitigate these risks, even if an ambitious climate policy path was to be materialized, Repsol has recently announced its commitment to achieve net zero emissions by 2050. Previously, it had estimated the greenhouse gas emissions reduction potential of all levers that can possibly be used. These estimations showed that it is possible to achieve at least 70% of this target with the technology that can currently be foreseen, and our company is committed to applying the best available technologies to increase this figure, including carbon capture, use and storage. In addition Repsol would, if necessary, offset emissions through reforestation and other natural climate sinks to achieve net zero emissions by 2050. Next we include a CASE STUDY of how this process applies to a transitional climate change risk. The selected one is the risk of "Changes in the primary energy production mix". It refers to the extent of the primary energy mix carbon intensity reduction, and more specifically to the replacement of coal, oil and natural gas with less carbon intensive sources, such as renewables or nuclear energy. Once the IEA scenarios were selected, their probability estimated by the experts panel, and the P&L behavior modelled, the experts panel was gathered in order to: a) review the climate risk taxonomy, b) discuss about the substantive risks and agree on the top-10, using the Delphi technique to reach a consensus, and c) rate the risks in terms of their relative contribution to the overall P&L effect of global warming and climate policies, differentiating between the earlier and the latter years of the assessment period. The risk "Changes in the primary energy production mix", for instance, was rated as the 9th climate risk in terms of severity by 2030, and the 2nd by 2040. Indeed, the experts judgement revealed that during the early years of the period we expect more exposure to risks related to regulatory changes affecting operations or penalizing investments, and social stigmatization of the O&G industry. These early risks are expected to trigger structural changes in the energy system in the longer term, such as the mentioned changes in the primary energy mix.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Repsol assesses the potential effects of current regulation in countries and markets where the company has business interests. An example of this risk is the potential deviation in the cost of procurement of the EUAs (European Union Allowances) which are needed for compliance purposes under Phases III and IV of the ETD (Emissions Trading Directive) because of the market volatility and/or a significant reduction of the free allowances to be allocated to Repsol's facilities under Phase IV (from 2021 on). In order to mitigate this risk, direct greenhouse gas emissions reductions have been targeted by 2025 vs 2017 (3 MtCO2eq/year company-wide). Green bonds have been issued to fund the outstanding investments, such as energy efficiency enhancements, that shall enable the company to achieve this objective.
Emerging regulation	Relevant, always included	Repsol assesses the impacts of potential changes in the regulation of those countries and markets where it has business interests (the emerging regulation). For instance, RED I Directive ruled that Member States shall ensure 10% of energy used in transport sector be renewable by 2020; Spain ruled (RD 1085/2015) a compulsory minimum 8,5% content of biofuels by 2020, given that the remaining 1,5% would be provided by railroad renewable electricity supplies. There is a risk that, should this additional 1,5% not be achieved, the minimum 8,5% biofuels content could be raised. In addition, the Fuel Quality Directive ruled that, by 2020, the GHG emissions intensity of transport fuels shall be 6% lower than it was in 2010. In practice, this target can only be achieved by blending a higher proportion of biofuels than stipulated by the RED I Directive. In addition, RED II Directive has set new targets for the longer term and it remains to be seen how it is transposed by the Member States; Spain has tentatively announced more ambitious targets than those of the RED II Directive. In summary, there is uncertainty around how these obligations will be regulated by the Spanish authorities, and therefore substantial uncertainty remains around the final target of biofuels content to be blended in transport fuels in Spain. Repsol's expert departments on biofuels and regulation continuously monitor this risk, which is factored in the annual budget and the strategic plan, and advice the business managers in order to make the best decisions.
Technology	Relevant, always included	Technology risk (with its potential downside but with an obvious upside as well) is a relevant risk for Repsol, especially in the long term (2030, 2040 and 2050 scenarios). Some of the most prominent risks within this category are the appearance of technologies aimed at a) enhancing the operational efficiency of facilities, b) producing, storing and distributing renewable energy, and c) developing new materials external to the O&G value chain. In order to mitigate these risks, Repsol is acting on three levers. First one is technology watch, i.e., track the status, evolution and potential of incumbent and emerging technologies. Second one is research, development and innovation, i.e., develop projects in selected fields driven by business needs with a clear focus on future profitability. And third one is investment, i.e., investing through capital ventures in technology start-ups, boosting their quick development.
Legal	Not relevant, included	There are several ongoing proceedings whose actual outcomes are uncertain, and therefore they are risks included in the Enterprise Risk Management (ERM) process. These proceedings are closely monitored and managed by our legal department. However, none of these proceedings relate to climate, so they cannot be considered as relevant climate change risks.
Market	Relevant, always included	Market risk is one of the most outstanding risks of Repsol's risk profile. This risk typically has both a downside and an upside (risk upside is often referred to as "opportunity"). Some market risks, but not all of them, are related to climate change. For instance, the development of market alternatives to traditional fuels (gasoline and diesel) for road transport, such as electricity-hydrogen-, natural gas- or LPG-powered engines poses a relevant risk to Repsol's retail business, with both downside and upside (opportunity) potential. There are ongoing initiatives aimed at minimizing the downside and maximizing the upside of this risk, consisting of the addition of new products and services to Repsol's current retail portfolio, e.g., LNG (liquefied natural gas), CNG (compressed natural gas), LPG (liquefied petroleum gases) or charge points for electric vehicles.
Reputation	Relevant, always included	The risk of stigmatization of the O&G sector is a relevant risk for Repsol in the short, medium and long term. There are several risks that relate to reputation and brand. For instance, third parties could perform communication actions, either in the media or in social networks, intended to interfere in the achievement of the company's objectives. In order to manage this risk, a dedicated communication department performs a variety of tasks, such as: real-time monitoring of media and social networks, assessing of truthfulness and impact of published news, early warning, continuous dialogue with concerned business units, awareness raising, development of communication strategies aimed at underpinning media campaigns, identification of influencers and referents, and involvement in discussions. The company carries out the management of these risks by increasing transparency and engagement with its stakeholders. The permanent dialogue with the groups of interest is key to know their concerns and to make known our positioning and company strategy. In addition, Repsol performs predictive assessments of macro-trends in order to anticipate risks and opportunities.
Acute physical	Relevant, always included	Repsol is exposed to acute physical risks. Several of these risks have been identified and analyzed. For instance, Repsol's gas trading premises in Houston are exposed to extreme weather events such as hurricanes, which could trigger the interruption of business activities. In order to mitigate this risk Repsol has developed and implemented a Business Continuity Plan (BCPs) where roles and responsibilities have been defined and assigned, IT resources and HSE tools have been provided, and procedures have been defined and documented. Employees are trained in order to ensure its effective enforcement. Additional contingency measures have been recently included, such as a bunker office in proximity of the main office in Houston, Repsol's Pittsburg premises as an alternative to the bunker as a remote working location, and electric generators at employees homes
Chronic physical	Not relevant, included	Even though Repsol is exposed to -properly identified- chronic physical risks such as for instance the uncertainty on future sales of gas oil for heating and agricultural applications, which are affected by temperature and rainfall patterns, they are not considered as relevant risks.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market	Uncertainty in market signals
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Primary potential financial impact

Other, please specify (Change in revenue mix and sources resulting in decreased revenues)

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Climate change could become a commercial risk if Repsol is not able to adapt their product portfolio and its assets to the requirements of low-emissions society. For example, an increased competition from renewable energy and from the commercialization of hybrid and fully electric vehicles could reduce demand for GHG intensive products. This could be considered a commercial risk that would erode the competitiveness of companies which are not able to adapt to this shift in consumption patterns. The company has analyzed negative impacts associated with a competitive de-positioning. It would be due to an increase of the pressure of local competitors, due to an inadequate commercial strategy or its incorrect application and/or because of the loss of clients due to the markets conditions. Below a list of different factors that has been analyzed: -Entry of new competitors or improvement of the positioning of current competitors due to an increase in installed capacity or the modification of the complexity of the conversion system. -Improvement of the positioning of competitors by increasing the percentage of utilization of its installed capacity. -Variations in oil supply or demand

volumes that modify, unforeseen, the differential between heavy and light crudes. -Deterioration of competitive position in the markets where we have our operations. -Improvement of the competitive positioning of competitors for access to cheaper raw materials or lower production costs. -Potential loss of the operating license in Exploration and Production activities. -Irruption of new competitors with competitive alternative technologies. The company develops its Downstream activity mainly in Spain, Portugal and Peru, and markets its products in many countries. Competitiveness within the downstream area is a permanent challenge that increases in an environment in which we have to adapt the Company to a low carbon economy. Being able to develop advanced biofuels in the refining area or differentiated sustainable ranges of plastic products for the Chemical division are some examples of challenges of the risk that the company must face. In this sense, the Company has set the objective to double biofuel production until 600,000 tons per year by 2030 and, in Chemicals, the Company is committed to efficiency in the industrial process and moving toward the circular economy, with the ambition of achieving 20% recycled content in all of its polyolefins by 2030

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

54000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

This economic impact would result in a reduced stock price and/or a diminished demand for the products we produce as automotive and industrial fuels or chemical products. Repsol can observe that a decrease of 1% in the demand of our products and services would be approximately USD 54 Million, as defined in the Strategic Plan update 18-20 (considering 2017 CFFO USD 5.4 Billion). Our approach to quantification of financial impact of climate change risks takes into account the current emissions (scopes 1, 2 and 3), the gradual availability of mitigating levers throughout the period 2020-2050 (including their estimated potential and marginal abatement costs), and the forecasted range of the shadow price of carbon in the IEA reference scenarios. Both the shadow price of carbon and the correlated potential of the mitigating levers are simulated in order to obtain the financial impact of the risks in every possible scenario (full range of probability covered), including those compatible with the IEA reference scenarios. Repsol as a company committed with the Task Force on Climate Financial Disclosure recommendations, is currently working on making an exhaustive and rigorous analysis on the economic impacts derived from Climate Change. A panel of experts in business strategy, prospective assessments, technology and sustainability are implied in the analysis.

Cost of response to risk

129000000

Description of response and explanation of cost calculation

Repsol is developing climate scenarios tools to determine the needs of the company to face a low carbon economy future. From these scenarios, Repsol undertakes market analysis as part of the strategic planning exercises. These analyses take into account evolving demand for its products as a result of many factors including price-pressure and changing market sentiment due to climate change and environmental factors. Financial implications are then factored into the strategic planning. Our strategic plan faces this risk increasing our portfolio of lower emissions products (biofuels, chemicals, renewable energy) foreseen investments of MUSD 2950 for lowemissions business in the 2018-2020 period (MUSD 1770 of which for the growth of the downstream business). This includes low emissions power generation, sustainable mobility, highlighting Repsol Electric mobility. In 2019 Repsol has become the first company in the oil and gas industry to set a target of net zero emissions by 2050. To achieve this, the Company is orienting this strategy towards reaching this target, aligning business plans with the goals of the energy transition and strengthening our profile as a customer-focused multi-energy supplier. Case study (1): In 2019, following the new strategic approach, the objective of the Strategic Plan 18-20 of low carbon electricity generation capacity in 2025 was increased by 3,000 MW to 7,500 MW. In addition: • Four renewable electricity generation projects were acquired in Spain, with a total capacity of 921 MW. • The floating wind farm off the coast of Portugal, started production, with an installed capacity of 5 MW * The cost of these projects in 2019 amounted USD 112 million Case study (2): In 2019, in line with the new commitments assumed by the Company to make progress towards zero emissions by 2050, work has been stepped up in the Technology Hub relating to the energy transition and decarbonization, in addition to the development of critical technologies in new models of distributed generation to facilitate the optimal management of electrical charges, including electric vehicles, which will make it possible to connect solar panels or energy storage systems. Many of the projects we develop are focused on solutions that contribute to mitigate climate change. In 2019, USD 11 million were invested in off-shore wind energy and biofuels (1st generation and advanced) projects, and USD 6 million in low carbon technologies.

Comment

Figure provided as cost of management corresponds to 2019: The cost of development of low carbon electricity capacity is USD 112 million in 2019. Additionally, in Repsol's Technology Hub USD 11 million were invested in off-shore wind and biofuels projects, and USD 6 million in low carbon technologies

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Other, please specify (Policy and legal: Mandates on and regulation of existing products and services)
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Primary potential financial impact

Other, please specify (Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums))

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

To face Climate Change the authorities and governments are implementing legislation increasingly more restrictive. It is worth highlighting the following policies: Europe: Structural reform of the European carbon market (Phase 3&4): To achieve at least 40% EU target, sectors covered by the ETS have to reduce their emissions by 43% compared to 2005. The overall number of emission allowances will decline at an annual rate of 2.2% from 2021 to 2030, compared to 1.74% currently. Renewable Energy

Directive (RED I & II): It establishes an overall policy for the production and promotion of energy from renewable sources in the EU in 2020. RED required the EU to fulfil at least 20% of its total energy needs with renewables by 2020 and at least 32% in 2030. Energy Efficiency Directive (EED): This Directive requires Member States imposing indicative targets for energy efficiency to achieve savings of 20% of primary energy by 2020. Energy Efficiency targets at Union level, expressed in primary and/or final energy consumption should be set out in the form of a target of at least 32.5% for 2030. Promotion of clean and energy efficiency road transport vehicles: It sets a specific emission target for transport. More precisely light vehicles have to reduce their emissions from 130 gr CO2/km in 2015 to 95 gr CO2/km by 2020. In addition, manufacturers will have to reduce emissions further to meet the targets of 95 gr CO2/km by 2021 for cars. The European Commission is proposing more ambitious limits by 2025 and 2030. Repsol has 5 refineries and 3 chemical complexes in Europe, so these directives affect directly: ETS affects in direct emissions in our facilities, RED sets the amount of biofuels that we have to incorporate in our fuel products, according EED our facilities carry out energy efficiency systems and audits, etc. In addition, in Spain a new Climate Change and Energy Transition law is in the approval process. Repsol is actively monitoring and contributing to this process. Canada: Pan Canadian Framework on Clean Growth and Climate Change: Prime Minister of Canada announced that the Federal Government will establish a "floor price" on carbon pollution of USD 7.5 per ton in 2018, rising to USD 37.57/t by 2022. We operate our Canadian facilities mainly in Alberta Province. This province has already in force a carbon pricing scheme, affecting our direct emissions and we manage it through improving our cogeneration units, energy efficiency opportunities, etc.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact includes the EU ETS, RED, FQD and Energy Efficiency Directives that has been mentioned before. Taking into account the differences between free allowances (our facilities are under carbon leakage scheme), expected emissions for the following years and CO2 prices forecast, the potential impact was estimated in an internal study. The result takes into account current legislation by 2020 (Mainly impacts are located in EU). The company is now analyzing new European legislation by 2030 (new EU ETS Directive, 32% of renewable in final energy, etc.).

Cost of response to risk

386000000

Description of response and explanation of cost calculation

We are implementing ambitious plans to reduce our CO2 emissions through energy efficiency. As an case study, during 2019 we avoided 62 kt CO2 through reduction actions implemented in our EU refineries and chemical facilities. These measurements have an indefinite timeframe. Action being implemented: We are working on ambitious plans to reduce emissions by 2025 in our Upstream and Downstream businesses. In 2018 we have defined a new GHG emissions reduction plan for 2018-2025 with the objective of achieving an annual reduction of 3 million tons of CO2e at the end of the period compared to 2017. We have also defined a strategy to reduce methane and routine flaring emissions at our facilities based on the application of best practices in measurement and mitigation and aligned with that we have joined several international initiatives as active participants. Cost of response to risk: In 2017, Repsol was the first company in the Oil & Gas sector to issue a green bond amounting USD 560 million to investment projects in our production facilities aimed to avoid GHG emissions by around 1.2 millions of tons of CO2eq. Eligible projects pertain to following categories: (i) Energy efficiency projects and (ii) Low emissions technologies. In May 2020 we have fulfilled the commitment to allocate USD 560 million in eligible projects in the first three years after issuance. More precisely, we have allocated USD 598 million, which USD 386 million where devoted to energy efficiency projects and avoided 860 kt CO2eq.

Comment

The cost of management is a direct investment between 2014 and 2020. It is not a mitigation cost.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation	Stigmatization of sector
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Primary potential financial impact

Other, please specify (Reduced revenue from decreased demand for goods/services)

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In recent years, concern about the negative effects of climate change has become more important, and the Oil and Gas sector has been in the spotlight of many stakeholders. The company has analyzed negative impacts associated with communication actions in any media, made by thirds parties whose purpose is to interfere in the fulfillment of the objectives of the Organization, without taking into account the efforts made to adapt our activities to a low carbon economy. The environmental sensitivity, specially acute in the last years to global warming and climate change, is embedded in current values of civil society and is at the origin of very strong movements both in civil society and in more specific environments. Additionally, there is a tendency towards activism in countries / geographical areas that are especially sensitive to the effects of climate change (for example, islands or coastal areas).

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

54000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact due to a reputation would result in a diminished demand for the products we sold as automotive and industrial fuels or chemical products. Repsol can observe that a decrease of 1% in the demand of our products and services would be approximately USD 54 Million (considering 2017 CFFO USD 5.4 Billion). Our approach to quantification of financial impact of climate change risks takes into account the current emissions (scopes 1, 2 and 3), the gradual availability of mitigating levers throughout the period 2020-2050 (including their estimated potential and marginal abatement costs), and the forecasted range of the shadow price of carbon in the IEA reference scenarios. Both the shadow price of carbon and the correlated potential of the mitigating levers are simulated in order to obtain the financial impact of the risks in every possible scenario (full range of probability covered), including those compatible with the IEA reference scenarios. Repsol as a company committed with the Task Force on Climate Financial Disclosure recommendations, is currently working on making an exhaustive and rigorous analysis on the economic impacts derived from Climate Change. The Risk Division, the Strategy Division, the Sustainability Division, the Communication Division, the Financial Division and the Downstream and upstream Divisions are implied in the analysis.

Cost of response to risk

304000

Description of response and explanation of cost calculation

The company carries out the management of these risks by increasing transparency and engagement with its stakeholders: This can be found in: - Integrated Management Report of the Company, which includes the sustainability report. - Publication of: "Toward a low-emissions future: Repsol's Climate Change roadmap" - Publication of: "Assessing Repsol's participation in industry initiatives and associations: Climate Change" - Relationship with ESG investors. - Roadshows with investors at the highest level of the company. - Sustainability Day. The permanent dialogue with the groups of interest is key to know their concerns and to make known our positioning and company strategy. In 2019 Repsol has made progress in the alignment of its report to comply with the recommendations of the TCFD, facilitating greater transparency in relation to climate related risks. In may 2019, Repsol has published the Repsol Climate roadmap, which outlines several short, medium and long-term targets and ambitions aimed at reducing our greenhouse gas emissions and shaping our energy asset portfolio in line with the Paris Agreement. In may 2020, Repsol has assessed its participation in 28 initiatives and associations. The selection is based on the associations' or initiatives' relationship to the energy sector, their scope of action in regions or countries where we have significant business or commercial operations, and their relevance in relation to climate change. This assessment is designed as an exercise in transparency regarding the impact of our activities on climate change and comes in response to requests by investors and analysts. Regarding the cost of management, in 2019 we invested USD 118,000 in different actions of engagement with investors (Sustainability day, roadshows, etc.), In addition all the sustainable information of the company published is verified annually by a third party, the cost of the verification is approximately USD 118,000. Moreover, the cost of publishing Repsol's climate roadmap and the assessment report about Repsol's participation in industry initiatives and associations has amounted to USD 68,000

Comment

Finally, we would like to remark that Since 2007, we have verified the GHG emissions inventory according to ISO 14064-1. This verification currently includes emissions from Refining, Chemicals and Exploration & Production operating assets, our CCGTs were verified under EU-ETS scheme, accounting overall 98% of the company's emissions verified. We have made the reports derived from these verifications available to stakeholders as further evidence of Repsol's commitment to transparency. This figure has not been considered when calculating the cost of response to risk.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Energy transition can be an opportunity because we are developing a lot of programs to improve Energy Efficiency and reduce GHG emissions in our processes. Specifically Repsol conducts energy audits and keeps training their staff in the different Business Units to find savings and possibilities for reducing their energy consumption. Related to that, Repsol is setting Energy Management System (EnMS) in their facilities under the international standard ISO 50001. For the O&G processes, flaring is a safety measure, but when barriers to the development of gas markets and gas infrastructure prevent natural gas from being used in oil production, the

associated gas is flared. Reducing associated gas flaring is a win-win solution and will be the focus of our reduction actions and initiatives. E&P is our main contributor business on routine flaring, so it's the one that is primarily affected by our commitment by 2025. In this sense, in 2018 we started to improve the inventory of emissions due to gas flaring year by year, segregating this inventory into routine and nonroutine flaring, applying the definitions of the GGFR and standardizing criteria among OGCI companies. This work has enabled the company to establish a routine flaring reduction target of 50% by 2025 in our operated E&P assets. In 2019, routine gas flaring (in tCO₂e) has been reduced by 19% compared to 2018. Furthermore, assets located in places without the necessary infrastructure to take advantage of gas recuperation are performing flaring reduction actions. Main lines of action are: (1) improvement of the design and operational procedures of the facilities; (2) Reutilization of gas as a fuel, to generate electricity or for reinjection; (3) Commercial solutions to make use of the gas once it has been treated. This can be an opportunity because it's a valuable energy resource that could be used to advance the sustainable development of producing countries. In addition, several initiatives have been established to regulate methane emissions, such as the implementation of more precise emission detection and quantification technologies. Methane is 25 times more potent than CO₂ and many consider the gas industry to be one of the largest man-made emitters of methane after agriculture. In this sense, Repsol has undertaken the objective of reducing methane intensity in its operated assets by 25% by 2025, being an opportunity for Repsol to increase gas production capacity avoiding emissions.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

940000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

In Repsol's strategic plan Repsol's foresees to increase their CFFO (50 \$/bbl) taking advantage of the previous opportunities. To be precise: - Efficiency and digitalization program in upstream units: USD 0.71 billion . - Profitability increase in Downstream units: USD 0.24 billion.

Cost to realize opportunity

598000000

Strategy to realize opportunity and explanation of cost calculation

Our catalogue of GHG emission reduction opportunities is continuously updated and nearly 1,500 actions have already been identified in our facilities worldwide so far. All our Business Units carry out energy efficiency programs that develop specific activities to improve its energy performance. Example: in 2019, 171 kt CO₂ savings were carried out in our facilities. Moreover, 8 facilities and 1 multisite business are currently certified under ISO 50001. Action being implemented: - To reduce methane emissions we are implementing best practices in measurement and mitigation, aligned with our active participation in several international initiatives, such as MGP, CCAC-OGMP and OGCI. In order to land the uncertainties in quantification, Repsol supports the development of technologies for remote sensing (drones, aircrafts, satellites, etc.) through the OGCI-CI. Besides in 2020 Repsol launched some pilots to test these emerging technologies. Seekops offers a combined solution of drones and analytics and it will be used in a pilot test at our E&P facilities, which is currently in the visualization and conceptualization phase. Kairos Aerospace provides actionable data on major sources of methane emissions from aerial surveys - Our endorsement to Zero Routine Flaring by 2030 World Bank Initiative allows us to collaborate with other companies and institutions to look for the most advanced technologies that minimize the routine gas flaring. Cost to realize opportunity: In 2017, Repsol was the first company in the Oil & Gas sector to issue a green bond amounting USD 560 million to investment projects in our production facilities pertain to following categories: (i) Energy efficiency projects and (ii) Low emissions technologies. In May 2020 we have fulfilled the commitment to allocate USD 560 million in eligible projects in the first three years after issuance. More precisely, we have allocated USD 598 million and avoided 1,2 million tons of CO₂e emissions (considering there are some emissions that will be verified in 2021)

Comment

In addition, in 2016 a fund was created by OGCI (OGCI Climate Investment) to invest US\$1 billion over 10 years to develop and accelerate the commercial deployment of low-emission technologies. This cost has not been considered in the cost to realize opportunity

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Other, please specify (Increase revenue demand for lower emissions products and services)

Company-specific description

Current and future regulatory and social requirements related to climate change generate business opportunities for Repsol. These new requirements increase the demand of low-emission products and services, open up new markets and boost access to market shares. Natural gas is the lowest carbon-intensive fossil fuel is the best alternative to reduce emissions in the power sector link to the CCS technology. It represents nowadays a great portion of our main reserves (more than 60% of our production and more than 70% of our reserves are gas). Being Natural Gas the fossil fuel with less CO₂ emissions, Repsol would be able to provide more energy with less CO₂ emissions than its competitors, increasing its revenues. This is an opportunity for Repsol since it is possible to create in the long term new business lines associated to low emission products and services. We endeavor to promote, boost and provide business grounding to new initiatives that contribute to a more diversified future energy mix with lower CO₂ emissions. Example: In 2018 Repsol acquire low emission power generation from Viesgo and Power and Gas customers portfolio, with the objective to achieve 7,5 GW capacity by 2025. Repsol is working in the design of products that reduce GHG emissions when used. Our Technology Center uses R+D+i to improve and continually reduce emission intensity throughout the value chain. This enables a reduction in our customers' carbon footprint during the transformation or use of the products we market. Repsol will focus on the circular economy as a tool for the efficient use of resources and will double the production of high-quality biofuels derived from vegetable oils (HVO) to 600,000 tons per year in 2030, half of which will be derived from waste transformation before 2025. In Repsol Technology Lab we study different industrial processes (hydrogenation, fermentation, pyrolysis) to transform waste such as used frying oils, fats, solid urban waste and used plastics or tires into clean fuels. Repsol is

working on alternative electricity generation and new mobility schemes. Through Repsol Electric Mobility, we invest in electric mobility, providing a comprehensive recharging service using 100% renewable energy, smart facilities and terminals, and a control center for the infrastructure. We have also invested in technology-based start-up that boosts our activities.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

354000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

In Repsol's strategic plan Repsol's foresees to increase their CFO (50\$/bb) taking advantage of the previous opportunities. To be precise: • Low emissions businesses: USD 354 Million

Cost to realize opportunity

129000000

Strategy to realize opportunity and explanation of cost calculation

Sustainable mobility: 1) We have positioned ourselves as a leading company in electric mobility participating in the largest recharging network in Spain, with more than 1,700 points. In 2019, the first two ultra-fast charging points for electric vehicles on the Iberian Peninsula were inaugurated: one of them is the most powerful facility in Europe. 2) Promoting the use of Autogas in direct injection liquid phase engines (712 supply points, and gradually extending our network). In 2019, a new alliance was created with Conforauto workshops to facilitate the adaptation of gasoline vehicles to LPG. Innovation, development and research: development of low carbon technologies: a) Reducing intensity and CO2 emissions (design of a pilot plant to generate hydrogen using sun power as the main source b) Circular economy (implementation of the ZERO project to harness synthetic oils produced by treating, using new chemical recycling technologies, plastic waste that cannot be recycled using traditional, mechanical methods c) Carbon capture, storage and use technologies (use of CO2 polymers to replace fossil energy sources) d) Development of new models of distributed generation (acquisition of Ampere Energy, company specialized in the design, development and production of storage and energy management systems) Alternative electricity generation: 1) Four renewable electricity generation projects were acquired in Spain, with a total capacity of 921 MW. 2) The floating wind farm off the coast of Portugal, started production, with an installed capacity of 5 MW. 3) Repsol has launched two renewable initiatives: Solmatch and Solify. Solmatch, is the first large solar community in Spain. With this new service, based on a 100% renewable energy model, the company is promoting distributed electricity generation in Spain. Solify allows our customers to have a system that allows to monitor their energy consumption at home and control the various devices installed to efficiently manage your consumption and save on your electricity bill. At the same time, solar panels will be installed to provide renewable energy at home. Cost to realize opportunity: Repsol investment in alternative electricity generation amounts USD 112 in 2019 Repsol's Tech Hub and Corporate Venturing Division invested USD 11 million in off-shore wind and biofuels projects, and USD 6 million in low carbon technologies

Comment

The cost to realize opportunity corresponds to 2019 and does not include sustainable mobility initiatives. Additionally, in 2016 a fund was created by OGCI (OGCI Climate Investment) to invest US\$1 billion over 10 years to develop and accelerate the commercial deployment of low-emission technologies (not included in cost to realize opportunity).

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Other, please specify (Resilience)

Primary potential financial impact

Other, please specify (Increased revenue through demand for lower emissions products and services)

Company-specific description

Searching other financing sources for low emissions projects. Green Bond market aims to enable and develop the key role debt markets can play in funding projects that contribute to environmental benefits. Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance new and/ or existing eligible Green Bond Projects such as renewable energy, energy efficiency; pollution prevention and control; terrestrial and aquatic biodiversity conservation or climate change adaptation among others. They are intended for use by market participants and are designed to drive the provision of information needed to increase capital allocation to such projects. With a focus on the use of proceeds, the Green Bonds Principles aim to support issuers in transitioning their business model towards greater environmental sustainability through specific projects. Source: The Green Bond Principles 2017 (ICMA) Case study: In May 2017, Repsol has issued a Green Bond. With this issuance, the Company reinforces its commitment with Corporate and Social Responsibility demonstrating its investment in sustainable purposes. Repsol is convinced that innovation and technological development are essential for ensuring reliable and sustainable supply in the long term. That is why; financing our projects with a green bond we are contributing to a low emissions future.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

OECD estimated that the green bond market could increase to USD 4.7 trillion to USD 5.6 trillion in outstanding bonds by 2035, with annual issuances of USD 620 billion to USD 720 billion. Green Bonds can advance adoption of innovative new technologies, finance projects that provide green jobs, and promote economic and climate resiliency across regions. Green bonds are an excellent way to secure large amounts of capital to support environmental investments that may not otherwise be available, or that may be uneconomic using more expensive capital. Green bonds are well suited for large-scale sustainability projects such as wind and solar development, which often require capital investment ahead of revenues, and which generate modest revenue over a longer investment horizon. More precisely, for Repsol this Green Bond is an opportunity to improve its financing costs. An improvement in the interest rate by a total of 100 basis points could imply savings of USD 5 Millions.

Cost to realize opportunity

598000000

Strategy to realize opportunity and explanation of cost calculation

For the issuance of Repsol Green Bond, we have established a framework of eligible projects to avoid GHG emissions through the implementation of energy efficiency and low emissions technology investments that contribute to climate change mitigation. The projects must have a positive environmental impact (avoidance of GHG emissions) and shall be aligned with Repsol sustainability policies to be selected as eligible. The projects are part of an active plan to avoid 1.9 million of tons of GHG emissions annual run rate by 2020. This bond complies with the Green Bond Principles in its four core components: (1) Use of Proceeds; (2) Project Evaluation and Selection; (3) Management of Proceeds; (4) Reporting An ESG agency has certificated the integrity of the requirements and evaluation of the selected projects issuing an external opinion. Case study: Project T-77 in Tarragona chemical plant Replacement of the turbine that drives the propylene compressor with a more efficient one. The project also includes the replacement of the boiler water turbine by an electric motor. The old turbine had an efficiency of 69% while the new turbine reaches 82%, reducing steam consumption by more than 5 t/h. On the other hand, the replacement of the boiler water turbine saves 19 t/h of steam. All this gives the T-77 project a high profitability and a reduction in CO2 emissions estimated at 28,000 t/year. Cost to realize the opportunity: In 2017, Repsol was the first company in the Oil & Gas sector to issue a green bond amounting USD 560 million to investment projects in our production facilities aimed to avoid GHG emissions by around 1.2 millions of tons of CO2eq. Eligible projects pertain to following categories: (i) Energy efficiency projects and (ii) Low emissions technologies. In May 2020 we have fulfilled the commitment to allocate USD 560 million in eligible projects in the first three years after issuance. More precisely, we have allocated USD 598 million and avoided 1,2 million tons of CO2eq emissions (considering there are some emissions that will be verified in 2021)

Comment

The cost to realize opportunity is a direct investment between 2014 and 2020.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
IEA Sustainable development scenario	<p>Repsol’s Board of Directors has analyzed the role of the company in the fight against climate change and took a new step in its commitment to leading the energy transition in line with the objectives of the Paris Agreement and the Sustainable Development Goals of the United Nations. Repsol will direct its strategy towards achieving net zero emissions (NZE) by 2050. The company is the first in its industry to set this ambitious goal, which aims to limit planetary warming to less than 2°C compared with pre-industrial levels. To achieve this objective, Repsol is setting new goals for the reduction of its Carbon Intensity Indicator (CII) from 2016: 3% by 2020, 10% by 2025, 20% by 2030, 40% by 2040 and NZE by 2050. The CII, expressed in gCO₂e/MJ, will be used to monitor progress and apply the most adequate and timely efficient measures. The time horizon to reduce this CII takes the form of a short-term target and a long-term ambition: • Target to reduce CII by 3% by 2020 • Ambition to reach NZE by 2050</p> <p>The methodology for the CII is: Numerator: -Scope 1&2 emissions from E&P, Refining, Chemical & Electricity&Gas businesses. -Scope 3 emissions associated with the use of products from our O&G productions and third-party hydrogen plants. -Avoided emissions due to our low-carbon electricity generation assets by replacing the marginal electricity mix in the country where they are located. -Avoided emissions from CCUS or NCS Denominator: -O&G production from E&P; Oil: energy from the products obtained in our average Refining and Chemicals process Gas: energy contained in the gas production -Energy contained in the equivalent oil used to produce chemical products, lubricants and asphalts -Renewable and low carbon electricity generation. We use the CII for the scenario analysis, and we perform a top-down assessment. The results of this analysis are aligned with the establishment of the SDS: -All levers are needed: Short-term: energy efficiency, CH₄ emissions and routine flaring reduction Medium-term: renewables, biofuels and chemical products Long-term: CCUS, e-fuels, green and blue hydrogen, NCS. MACC curves are being performed in order to assess how the different scenarios are admissible based on its costs. -All these levers include scope 1,2 & 3 All these analysis are shared with the areas involved in strategy and decision making (risks assessment, strategy area...) and the follow up of the strategic plan will be reported to the Board at least twice a year. This scenario analysis make our traditional business evolve towards the energy transition: -E&P: Prioritizing gas over oil production, prioritizing short-cycle projects, and calculating the profitability of assets at prices consistent with the SDS -Refining: Maintain the cost-effectiveness of operations and reduce carbon intensity by improving energy efficiency, electrifying facilities and integrating renewable electricity and by producing biofuels and waste-to-fuels -Chemicals: Development of new chemical applications, increasing the energy efficiency of operations and promoting circular economy projects As a multi-energy company, integration of low carbon electricity generation (renewables) with a combined offer of increasingly decarbonized products and services (electricity, gas, distributed energy). As an example, our company has become a significant player in the Spanish electricity market, with a total installed of low carbon capacity of 3 GW (hydroelectric plants and CCGT and CHP). We are now expanding our presence in the renewable sector: Solar projects (Valdesolar, Sigma and Kappa) Wind projects (Delta, Delta2 and PI) Repsol has the objective to achieve 7.5 GW of low-emission power generation capacity in 2025. Repsol sells electricity and gas in the retail sector with more than 1 million customers (share of more than 2% of the market) in Spain, with the target to have 2.5 million customers by 2025 (market share of 5%).</p>

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Regarding low carbon power generation, our company, through its new subsidiary Repsol Electricity and Gas, has become a significant player in the Spanish electricity market, with a total installed capacity of 2,952 MW, a market share of over 2% in the electricity and gas retail sector in Spain and a portfolio of more than one million customers. In addition, we have expanded our presence in the renewable sector with several solar and wind projects. In solar projects we are developing our Valdesolar Hive project, with a capacity of 264 MW, and we also acquired Sigma, a 204 MW solar project and Kappa with 126 MW. Regarding wind power generation, Repsol has three projects in Spain, two in Aragon, Delta (335 MW) and Delta 2 (860 MW), and another in the Castilla y León region, PI (255 MW). In 2019, the construction phase of the Windfloat Atlantic project (3 wind turbines with a total power of 25 MW) on the Portuguese coast was completed. These actions will contribute to the reduction of our Carbon Intensity Indicator and to the objectives set for 2025 in our Strategic Plan (7.5 GW), thus combining the management of climate change 2025 target objectives risks with taking advantage of opportunities.
Supply chain and/or value chain	Yes	Repsol is changing primary energy sources toward alternatives that are less carbon intensive. The company is committed to natural gas, biofuels and new low-emissions businesses. Repsol has been adding biofuels to its automotive fuels for more than 20 years, including Bio-ETBE in its gasoline from bio-ethanol and producing HVO in its refineries from vegetable biomass, and has set a target of production of 600,000 tons per year by 2030. In addition, USD 67 million dollars will initially be invested in order to build one of the largest net zero emissions synthetic fuel production plants in the world, based on green hydrogen generated with renewable energy. This plant will be located near our facilities in Bilbao (Spain). The main feature of these new fuels is that they are produced using water and CO ₂ as the only raw materials. They can be used in the combustion engines that are currently installed in automobiles in Spain and the rest of the world, as well as in airplanes, trucks, and other machinery.
Investment in R&D	Yes	With more than 200 researchers, our Repsol Technology Lab is the largest private R&D center in Spain and bases its operating model on open innovation and networking, in alliance with other business centers and universities around the world. As mentioned in question C2.2a), some of the most prominent risks within the technology risk category are the appearance of technologies aimed at a) enhancing the operational efficiency of facilities, b) producing, storing and distributing renewable energy, and c) developing new materials external to the O&G value chain. In order to mitigate these risks, Repsol is acting on three levers. First one is technology watch, i.e., track the status, evolution and potential of incumbent and emerging technologies. Second one is research, development and innovation, i.e., develop projects in selected fields driven by business needs with a clear focus on future profitability. And third one is investment, i.e, investing through capital ventures in technology start-ups, boosting their quick deployment. In 2018, the Board predicted this trend and approved a new strategy 2018-2022 in Technology and Corporate Venturing focused on: • Reduction of energy intensity and emissions of CO ₂ . • Sustainable and efficient improvement of the profitability of assets. • Creation of a significant proposal to differentiate energy products and services with a highly customer-oriented focus. In 2019, in line with the new commitments assumed by the Company to make progress towards zero emissions by 2050, work has been stepped up relating to the energy transition and decarbonization, in addition to the development of critical technologies in new models of distributed generation to facilitate the optimal management of electrical charges, including electric vehicles, which will make it possible to connect solar panels or energy storage systems. Many of the projects we develop are focused on solutions that contribute to mitigate climate change. In 2019, USD 11 million were invested in off-shore wind energy and biofuels (1st generation and advanced) projects, and USD 6 million in low carbon technologies (CCUS, Energy efficiency, blue or green hydrogen, sustainable mobility, Natural Climate solutions) Furthermore, Repsol participates with its partners in the OGCI Climate Investments (OCGI-CI), investing in 2019 USD 6 million in this initiative.
Operations	Yes	We are committed to reducing energy use and GHG emissions in all our operations. We established a 2014-2020 plan with an emissions reduction target of 1.9 million tons of additional annual CO ₂ at the end of the period, which we extended to 2.1 million after the acquisition of Talisman Energy in 2015. In 2018 we have defined a new GHG emissions reduction plan for 2018-2025 with the objective of achieving an annual reduction of 3 million tons of CO ₂ eq at the end of the period compared to 2017. The ambition of the new objective requires us to widen the field of action, which was until now focused on energy efficiency measures, also covering: • Reduction of methane emissions • Reduction of routine flaring • Additional improvement of energy efficiency • Use of low-emission technologies and renewable energies in our operations Repsol was the first company in the Oil & Gas sector to issue a green bond amounting USD 560 million to investment projects in our production facilities aimed to avoid GHG emissions by around 1.2 millions of tons of CO ₂ eq. Eligible projects pertain to following categories: (i) Energy efficiency projects and (ii) Low emissions technologies. In May 2020 we have fulfilled the commitment to allocate USD 560 million in eligible projects in the first three years after issuance. More precisely, we have allocated USD 598 million and avoided 1,2 million tons of CO ₂ eq emissions (considering there are some emissions that will be verified in 2021)

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital allocation Access to capital Assets	CAPITAL ALLOCATION As an energy company we are convinced that setting a global carbon price and applying it homogeneously to all sectors is the best tool to move toward a low emissions future. In this way, each ton of CO2 would have an associated price that everyone, from the industry to the final consumer, would see reflected in their activity and that would allow them to become aware and modify their habits toward a production and consumption of energy that is efficient as possible. This would also be reinforced by clear and transparent information on costs and their impact on each party involved. In accordance with this position, and in the absence of global measures, Repsol has established an internal carbon price that we apply to every new investment we make. The values we have set are US\$25 per t in 2018, reaching US\$40 per t from 2025. ACCESS TO CAPITAL Green Bond market aims to enable and develop the key role debt markets can play in funding projects that contribute to environmental benefits. On May 9th 2017, Repsol announced its inaugural Green Bond offering, following the publication of the Company's Green Bond Framework and Second Party Opinion, provided by Vigeo. Repsol finally issued USD 560 million in a 5-year deal with a coupon set at 0.500%. Circa 45% of the bonds were allocated to investors with Environmental, Social and Governance (ESG) mandates. By May 2020, Repsol has fulfilled the commitment of investing USD 560 million in selected projects (Energy Efficiency projects and low emissions technologies – renewable hydropower) and has continued to invest in Energy Efficiency Projects ASSETS The new strategic focus in the context of new dynamics in the oil and gas markets and in policies that target decarbonization of the economy, Repsol has revised the valuation hypotheses for investments assuming a scenario compatible with the climate goals of the Paris Agreement and the United Nations. As a consequence of the application of this new scenario Repsol expects to adjust the accounting value of some assets, with a post-tax accounting charge of approximately USD 5.4 billion. This adjustment will reduce specific reported income for 2019 but does not alter the company's cash flow for the year nor the announced proposal to increase shareholder remuneration.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Repsol carries out a carbon strategy, which is based on scenario analysis that shows how the company can adapt its activity to a low emissions future. The way in which the company evolves and adapts to that future is determined by the levers employed and how they impact individually in the achievement of the net zero emissions ambition.

In Repsol two different time horizons have been taken into account when defining our business strategy:

In the short-medium-term we take into consideration aspects that are more closely related to competitiveness, such as the costs of energy and CO2, as well as the regulatory framework of our activities. Examples of this regulatory is the EU – ETS, Renewables Directive (RED) and Energy Efficiency Directive (EED) in Europe or the Canadian Framework. Those legislations are increasing the costs of operational cost and the company is developing ambitious plans to answer these challenges:

In the short term (2020-2025) operational efficiency (energy efficiency, methane management, routine flaring reduction, etc.) to reduce our Scope 1 and 2 emissions are the corner stone of our strategy. Regarding our Scope 3 emissions biofuels, chemicals, natural gas production are the most important levers. In addition, those legislations are changing the energy use and consumption, so new opportunities arise from our sector. Those challenges are analysed through our Risk Management System and our strategy shaped this future with new business lines and products.

In the medium term (2025-2030) renewables, retail and wholesale gas natural, sustainable fuels, sustainable mobility, are being the main levers.

In the longer-term (2040 - 2050), there are legislative developments at the international level, such as the climate neutrality of the EU by 2050, sustainable finance at the EU level or national contributions from other countries to the Paris Agreement, which will be transposed into future regulations over the years. In the long term new technology solutions will have to be developed to reach a low emissions future according Paris Agreement. Those technologies will be CCS, CCUs, Natural Climate Solutions, Hydrogen, etc.

To make progress in this area Repsol has developed a CII (g CO2/MJ), which allows us to set reduction targets, support strategic and investment decision making and monitor their progress. We have the ambition to reduce our carbon intensity in line with climate change mitigation needs, which we represent today through the IEA's SDS scenario, without forgetting that at the same time we must provide the energy society needs for its development and well-being.

To reinforce our commitment to reach Net Zero Emissions by 2050, the company has precise targets for every lever:

- Reduce GHG emissions to achieve a reduction of 3 million tons of CO2e at the end of the period compared to 2017. reduction plan for 2018-2025
- Reduce our methane emissions intensity by 25% in our operating E&P assets by 2025 compared to 2017.
- Reduce 50% of routine flaring by 2025 compared to 2018, aligned with the ambition of minimizing it by 2030.

- Achieve 7.5 GW low-emissions power generation capacity and 5% gas and electricity retail market share (Spain) by 2025.

Repsol has been adding biofuels to its automotive fuels for years so, our gasoline and diesel contain on average 6% in energy content of biofuels and in 2020 this figure will increase to 8.5% in line with EU regulatory requirements and 14% in 2030.

In the update of our strategic plan we have foreseen investments of €1,500 million in the 2018-2020 period for the growth of the Downstream businesses, part of which will be dedicated to boosting the Chemicals business.

Therefore, our business strategy is strongly linked to climate targets and objectives.

In the Upstream business, Repsol will orient its asset portfolio towards compliance with the Paris Agreement to achieve the planned goals. This will entail prioritizing value generation over production growth, whilst maintaining flexibility as the strategic axis of the business, placing the emphasis on rotation and improvement of the asset portfolio and on cash generation.

This vision translates to a strategy of balancing gas and oil reserves, with a vision of gas as the fuel for the energy transition while also taking into account the active role that oil must play in a more decarbonized world.

For the assessment of future exploration or production decisions, the company is assuming an oil and gas price curve compatible with the Paris Agreement and the scenario of limiting the temperature increase to well below 2 degrees Celsius.

In its industrial business, with a primary focus on refining, Repsol is raising its decarbonization target, with an additional direct emissions reduction of 25% by 2025. This reduction is on top of the 23% cut in CO₂ emissions achieved between 2010 and 2017.

Repsol will focus on the circular economy as a tool for the efficient use of resources and will double the production of high-quality biofuels derived from vegetable oils (HVO) to 600,000 tons per year in 2030, half of which will be derived from waste transformation before 2025.

Repsol will also integrate renewable energy into refining operations, which will incorporate production of green hydrogen as well as the use of renewable energy to fuel industrial processes.

The company's chemicals business will also contribute decisively to a more decarbonized economy. In its industrial process, Repsol is committed to a business that is efficient and oriented towards the circular economy, with the ambition of achieving a 20% recycled content in its total polyolefin output by 2030.

Petrochemical products, present in most activities in our daily life, play a major role in achieving a lower carbon intensity scenario. Their advantages and applications include, among others, a reduction in the weight of materials that contributes to lower energy consumption in mobility, insulation for homes and buildings, which contribute to greater energy efficiency, an improvement in food conservation conditions and advanced products for medical and sanitary use. Consequently, global demand for petrochemical products is expected to increase by 30% to 2030 and 40% to 2050.

Repsol will continue developing its client-centric multienergy strategy, offering multiple solutions, and differentiated service and digitalization services to improve daily management.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2014

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2010

Covered emissions in base year (metric tons CO2e)

25455304

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2020

Targeted reduction from base year (%)

8.2

Covered emissions in target year (metric tons CO2e) [auto-calculated]

23367969.072

Covered emissions in reporting year (metric tons CO2e)

23090756

% of target achieved [auto-calculated]

113.280718311249

Target status in reporting year

Revised

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

Our decision taking and lines of action on climate change is performed at the highest hierarchical level within the company. The Executive Committee and the Sustainability Committee have the task of proposing the approval of the strategy and guiding and monitoring the objectives, action plans and practices of the company on sustainability, including the climate change issues. In 2013 our 2006-2013 reduction target of 2.5 million tons of CO2e was achieved. We far exceeded the goal set, reaching a reduction of 3.1 million tons at the end of the period. The company has set a new target for the 2020 horizon: the reduction of 2.1 million ton of CO2e in the period 2014–2020, using 2010 base line activity as a reference. Annually, and linked to our strategic long term objective, Repsol sets energy efficiency and CO2 reduction plans in all assets. The annual reduction in 2019 was almost 171,000 tons of CO2e. The accumulated emission reduction considering 2014-2020 plan has been 1.96 MtCO2e, which means a 93,3% of progress. There is a difference with the % of target achieved due to the fact that we use a bottom up approach in our emission reduction plan. That is to say, the covered emissions are influenced by the emissions reduction plan and in addition by operational conditions, throughput, etc. In 2018 we have defined a new GHG emissions reduction plan for 2018-2025 with the objective of achieving an annual reduction of 3 million tons of CO 2e at the end of the period compared to 2017. When finishing the current plan, we will start reporting the new one. Methane Intensity (Oth1) and Routine Flaring specific targets contribute to the achievement of this plan. All the reduction actions focused on methane reduction imply a reduction on both, the methane specific target and this reduction plan. The same rules apply for Routine Flaring target.

Target reference number

Abs 2

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based) +3 (upstream)

Base year

2016

Covered emissions in base year (metric tons CO2e)

111700000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2050

Targeted reduction from base year (%)

100

Covered emissions in target year (metric tons CO2e) [auto-calculated]

0

Covered emissions in reporting year (metric tons CO2e)

111000000

% of target achieved [auto-calculated]

0.62667860340197

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

Repsol's Board of Directors has analyzed the role of the company in the fight against climate change and took a new step in its commitment to leading the energy transition in line with the objectives of the Paris Agreement and the Sustainable Development Goals of the United Nations. Accordingly, Repsol will direct its strategy towards achieving net zero emissions by 2050. The company is the first in its industry to set this ambitious goal, which aims to limit planetary warming to less than 2 degrees centigrade compared with pre-industrial levels. To achieve this objective, Repsol is setting new goals for the reduction of its carbon intensity indicator from a 2016 baseline: 10% by 2025, 20% by 2030, 40% by 2040, and net zero CO2 emissions by 2050. The company is committed to applying the best available technologies to increase this figure, including carbon capture, use and storage. Repsol would, if necessary, additionally offset emissions through reforestation and other natural climate sinks to achieve zero net emissions by 2050. Although our main tool to monitor this goal is our CII, which is an intensive metric, to achieve this net zero emissions, the emissions in the numerator of the CII must be net zero. That is the reason why we understand this commitment is both an absolute target and an intensive target. All of our Climate Targets disclosed in this CDP report contribute to this target. Specifically: - Reduction plan Abs1 - Methane intensity Oth1 - Routine Flaring - Low-emission electricity generation capacity Low1 - Biofuels production Oth2

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based) +3 (upstream)

Intensity metric

Other, please specify (gCO₂eq/MJ)

Base year

2016

Intensity figure in base year (metric tons CO₂e per unit of activity)

77.7

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2050

Targeted reduction from base year (%)

100

Intensity figure in target year (metric tons CO₂e per unit of activity) [auto-calculated]

0

% change anticipated in absolute Scope 1+2 emissions

100

% change anticipated in absolute Scope 3 emissions

100

Intensity figure in reporting year (metric tons CO₂e per unit of activity)

75.5

% of target achieved [auto-calculated]

2.83140283140284

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

Please explain (including target coverage)

Repsol's Board of Directors has analyzed the role of the company in the fight against climate change and took a new step in its commitment to leading the energy transition in line with the objectives of the Paris Agreement and the Sustainable Development Goals of the United Nations. Accordingly, Repsol will direct its strategy towards achieving net zero emissions by 2050. The company is the first in its industry to set this ambitious goal, which aims to limit planetary warming to less than 2 degrees centigrade compared with pre-industrial levels. To achieve this objective, Repsol is setting new goals for the reduction of its carbon intensity indicator from a 2016 baseline: 10% by 2025, 20% by 2030, 40% by 2040, and net zero CO₂ emissions by 2050. It is possible to achieve at least 70% of this target with the technology that can currently be foreseen, and the company is committed to applying the best available technologies to increase this figure, including carbon capture, use and storage. Repsol would, if necessary, additionally offset emissions through reforestation and other natural climate sinks to achieve zero net emissions by 2050. Based on the possible ways of achieving a low emissions future and scenario analysis, Repsol has defined several lines of action that are integrated into its strategy: • Reducing the carbon intensity of traditional businesses: E&P, Refining & Chemicals • New low-carbon businesses: as a multi-energy company, integration of low carbon electricity generation (renewables) with a combined offer of increasingly decarbonized products and services (electricity, gas, distributed energy). • The role of new and emerging technologies: exploration and development of new "zero emission" or negative emission technological solutions such as Carbon Capture, Use and Storage (CCS and CCUS), e-fuels, hydrogen produced from solar energy, or natural climate solutions (CO₂ sinks). All of our Climate Targets disclosed in this CDP report contribute to this target. Specifically: - Reduction plan Abs1 - Methane intensity Oth1 - Routine Flaring - Low-emission electricity generation capacity Low1 - Biofuels production Oth2

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Target(s) to reduce methane emissions

Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Production

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

MWh

Target denominator (intensity targets only)

<Not Applicable>

Base year

2019

Figure or percentage in base year

3000

Target year

2025

Figure or percentage in target year

7500

Figure or percentage in reporting year

3000

% of target achieved [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

The achievement of this target will contribute to our Net Zero Emissions target (ref Abs2, Int1)

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Our objective is to advance in the energy transition and reduce the emissions of our operations and products in line with the Company's commitment to the fight against climate change according to the goal set out by the Paris Agreement. We expanded our renewables portfolio and at the same time increased by 3,000 MW our low-emissions electricity generation capacity objective for 2025, until reaching 7,500 MW. In solar projects we are developing our Valdesolar Hive project, with a capacity of 264 MW, and we also acquired Sigma, a 204 MW solar project and Kappa with 126 MW. In the wind power generation, Repsol has three projects in Spain, two in Aragon, Delta (335 MW) and Delta 2 (860 MW), and another in the Castilla y León region, PI (255 MW). In 2019, the construction phase of the Windfloat Atlantic project (3 wind turbines with a total power of 25 MW) on the Portuguese coast was completed.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2018

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Total methane emissions in m3
--------------------------	-------------------------------

Target denominator (intensity targets only)

Other, please specify (m3 of marketed gas (operated assets))

Base year

2017

Figure or percentage in base year

1.34

Target year

2025

Figure or percentage in target year

1

Figure or percentage in reporting year

1.28

% of target achieved [auto-calculated]

17.6470588235294

Target status in reporting year

Underway

Is this target part of an emissions target?

Repsol has an specific methane intensity target, but all the reduction actions to reduce methane emissions will contribute to other Repsol's Climate Change Targets: - Reduction plan Abs1 - Net Zero Emissions target Abs2, Int1

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

The scope and methodology of the KPI calculation complies with the following features: - Just methane emissions from operated assets are considered (not Working Interest) - The target is set at 2025, being the baseline year 2017 - The target is set to a specific emission defined as the percentage of methane emitted (on volume basis) divided by the total volume of marketed gas - All assets are included (gas and oil assets)

Target reference number

Oth 2

Year target was set

2019

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Renewable fuel production	Other, please specify (tonnes of liquid biofuel /year capacity)
---------------------------	--

Target denominator (intensity targets only)

<Not Applicable>

Base year

2019

Figure or percentage in base year

350000

Target year

2030

Figure or percentage in target year

600000

Figure or percentage in reporting year

350000

% of target achieved [auto-calculated]

0

Target status in reporting year

New

Is this target part of an emissions target?

The achievement of this target will contribute to our Net Zero Emissions target (ref Abs2, Int1)

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Repsol will focus on the circular economy as a tool for the efficient use of resources and will double the production of high-quality biofuels derived from vegetable oils (HVO) to 600,000 tons per year in 2030, half of which will be derived from waste transformation before 2025.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	39	
To be implemented*	45	180000
Implementation commenced*	28	154000
Implemented*	122	171000
Not to be implemented	4	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
---	----------------------

Estimated annual CO2e savings (metric tonnes CO2e)

171000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

17000000

Investment required (unit currency – as specified in C0.4)

48200000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

During 2019, 111 energy efficiency measures related to efficiency improvements in furnaces, energy integration of units heat recovery, more efficient energy generation and distribution and operation optimization of dynamic systems and processes were implemented in our assets. Scope 1 + 2 are included in all these reduction opportunities.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	In 2019 we have invested USD 48,2 million during in energy efficiency actions. In addition, Repsol's Technology Lab sets annual budgets for product and process R&D, which include dedicated areas for energy efficiency. During 2019, USD 6 million in low carbon technologies (CCUS, Energy efficiency, blue or green hydrogen, sustainable mobility, Natural Climate solutions)
Internal price on carbon	At Repsol, we take the price of carbon into account for our strategic plans. This way, we prepare our company to a low emissions future defining a Corporate Carbon Pricing. The price of carbon is included in the business model sheets for new investment decisions, ensuring that our portfolio is resilient to external CO2 regulations and policies, encouraging energy efficiency and low carbon technologies. CO2 price is also considered in risk management procedures of Business Units since new legislative developments could increase operational costs. That is to say, Carbon Pricing has influence and drives technology choices and has had some influence around various design elements throughout the project life cycle. Our carbon price pathway starts with 25 USD/t CO2 and this value will reach to 40 USD/t CO2 in 2025.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

Electricity from renewable sources

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Methodology developed by Repsol)

% revenue from low carbon product(s) in the reporting year

2.3

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Our company has become a significant player in the Spanish electricity market, with a total installed of low carbon capacity of 2,952 MW (hydroelectric plants and CCGT and CHP). - We are now expanding our presence in the renewable sector and regarding solar projects, we are developing our Valdesolar Hive project in Valdecaballeros (Badajoz), which is being one of the largest solar photovoltaic farms in Spain, with a capacity of 264 MW, and we also acquired Sigma, a 204 MW solar project and Kappa with 126 MW. - In the wind power generation, Repsol has projects in Spain: one in Aragon with 355 MW, and another in the Castilla y León region, with 255 MW. Overall, Repsol has now an installed capacity under development 1,185 MW, with the objective to achieve 7.5 GW of low-emission power generation capacity in 2025.

Level of aggregation

Product

Description of product/Group of products

Biofuels: Biofuels contribute to the reduction of CO2 emissions mainly in three ways: 1) avoiding the emissions associated with gasoline and diesel; 2) allowing the CO2 content of the fossil fuels to remain in storage and 3) providing a mechanism for CO2 absorption by growing new biomass for fuels. Repsol contribute to CO2 emissions reduction through the use of biofuels, incorporating bioethanol in gasoline and biodiesel and Vegetable Oil (VO) in gasoil. They are sold through Repsol service stations and direct sales to other suppliers. The avoided emissions represent the third party's Scope 1 emissions.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Methodology developed by Repsol)

% revenue from low carbon product(s) in the reporting year

1.67

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Repsol is changing primary energy sources toward alternatives that are less carbon intensive. The company is committed to natural gas, biofuels and new low-emissions businesses. Repsol has been adding biofuels to its automotive fuels for more than 20 years, including Bio-ETBE in its gasoline from bio-ethanol and producing HVO in its refineries from vegetable biomass, and has set a target of production of 600,000 tons per year by 2030. In addition, USD 67 million dollars will initially be invested in order to build one of the largest net zero emissions synthetic fuel production plants in the world, based on green hydrogen generated with renewable energy. This plant will be located near our facilities in Bilbao (Spain). The main feature of these new fuels is that they are produced using water and CO2 as the only raw materials. They can be used in the combustion engines that are currently installed in automobiles in Spain and the rest of the world, as well as in airplanes, trucks, and other machinery.

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

Repsol is committed with the methane emissions reductions.

As a part of this, Repsol has joined several global initiatives: OGCI, OGMP and MGP. Although our company had been reporting methane emissions externally and taking action on methane reductions for many years, the endorsement to these partnerships has been considered a good opportunity for increasing focus, sharing knowledge on methodologies and technologies and improving scientific and technical understanding of methane emissions in our industry and expanding outreach in order to engage the full value chain in these good practices.

Repsol continues its participation in the Climate and Clean Air Coalition (CCAC) Oil & Gas Methane Partnership, led by UNEP. For many years we have been implementing the methodology using the Technical Guidance Documents in order to improve accuracy on our inventory. We continue to focus on venting mitigation, fugitive emissions surveys (rolling out leak detection and repair (LDAR) programs), flare management and pneumatics devices retrofit. We continue supporting this initiative as active members through its transition to OGMP 2.0.

Our work within the Oil and Gas Climate Initiative (OGCI) includes specific focus on technologies to support methane detection, measurement and mitigation. In 2018 we set a collective methane reduction target of 0.25% methane intensity by 2025, with an ambition to achieve 0.20%. Within OGCI we also aim to expand our impact by engaging across the natural gas value chain and in collaboration with others.

In addition, Repsol continues its participation in Methane Guiding Principles, a multi-stakeholders partnership focused on ensuring robust methane emissions management through best practices in measurement, abatement, and transparent reporting. This voluntary, international initiative reinforces the coalition between industry and non-industry organizations with a focus on priority actions across the value chain, from production to the final consumer.

All these efforts have the result of setting a methane intensity reduction target for the Upstream business by 2025, considering 2017 as baseline.

During 2019, Repsol has continued its projects in Canada with the substitution of high-bleed pneumatic devices for low-bleed ones, and new projects are being performed in Malaysia, focused on the improvement of the selectivity of the membranes separation system in order to reduce methane emissions and increase hydrocarbon recovery.

Additionally, we are testing emerging near zero emission technologies that have the potential to replace instrument gas. These technologies include small-scale remote power generation that allows the replacement of pneumatics devices with electrical pumps and controllers. These technologies are based on hybrid systems that combine solar photovoltaic panels and fuel cells that charge batteries that are used to provide electricity to the well equipment.

We continue to expand the LDAR campaigns in our operated assets. These campaigns help us reducing our fugitives emissions but also it increases the accuracy of our methane inventory.

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

Through implementation of the company Environmental Performance Practices (EPP) we have set Leak Detection and Repair (LDAR) programs in order to detect and repair methane leaks. These guidelines make up a set of common standards regardless of the geographical area where we are operating and local legislation in each country.

We have also developed an internal standard (edited as a guidelines document) to carry out Hybrid LDAR campaigns, combining Optimal Gas Imaging (OGI) cameras for detection and field ionization flame devices (FID) for emission quantification of methane and other VOCs.

As an average, we perform a LDAR campaign annually in each facility, which is the recommended frequency in our standard. In any case, an increase in the LDAR campaigns frequency is considered in the methane emissions reduction plan for achieving our target by 2025.

Several examples can be provided (mainly in our assets located in North America), as this is a standard procedure already implemented. In 2018 we extend these practices to other assets in Bolivia and Malaysia and continue performing these campaigns during 2019.

The LDAR programs include the use of either an optical gas imaging camera or a VOC monitoring instrument specified in Method 21 (EPA) such as a gas leak detector, (typically an FID, capable of reading methane concentrations in air of 0% to 5% with an accuracy of $\pm 0.2\%$). The optical camera or gas leak detector utilized for the LDAR monitoring is operated in accordance with appropriate manufacturer-recommended practices.

The following equipment is monitored: valves, flanges, connectors, pressure Relief Devices, open-ended lines, storage vessels/storage tanks, compressor seals in natural gas or hydrocarbon liquids service and meters/instruments.

Leaks are determined to be any of the following observations: a) Visible methane or hydrocarbon emissions when utilizing an optical gas imaging camera; or b) A concentration measured 500 ppmv volatile organic compounds (VOC) if using a gas leak detector instrument.

Any leaks found from subject equipment are to be repaired within 15 days from the date of leak detection, except for certain circumstances in which facility shutdowns or ordering spare replacement parts are necessary for completion of repair. After leak repair, the equipment must be resurveyed within 15 days.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

In 2019, Repsol flared a total amount of gas equivalent of 0.8 million tons of CO₂eq, which accounts for 3,3 % of total Repsol CO₂eq emissions.

Approximately, 57% of the total CO₂eq from flaring corresponds to E&P emissions (0,46 million tons of CO₂eq).

In June 2020 Repsol has reported for its second time to the World Bank the 2018 routine and non-routine flaring (On June 10th 2016, Repsol endorsed the Zero Routine Flaring (ZRF) by 2030 World Bank Initiative. This endorsement is fully aligned with Repsol policies and commitment as part of the OGCI)

As Repsol is strongly committed to fight against climate change, in recent years our company has proposed targets and plans to reduce the energy consumption and carbon intensity of our operations, being flaring a key issue to focus on our attention and efforts. Flaring reduction initiatives have also an economical profit potential associated to the gas sales or to the possible use of the gas as internal fuel.

In this sense, in 2018 Repsol set a target of 50% reduction in routine flaring (in t CO₂e) by 2025 compared to 2018, aligned with the ambition of minimizing it by 2030. In addition, it has its own Environmental Performance Practice (EPP) that allows ensuring that new facilities include from their design phase, solutions to avoid routine flaring. As a member of the ZRF Repsol is committed to continually seek technical and economically viable solutions to minimize routine flaring as soon as possible and no later than 2030 in its upstream facilities by means of the reuse of gas, the onsite minimization and the search of commercial solutions.

In 2019, routine gas flaring (in tCO₂e) has been reduced by 19% compared to 2018.

Regarding downstream facilities, flaring is a loss of direct fuel and considering the importance of energy in their operation costs, reduction objectives have been part of the refineries energy targets for years. A "zero-flaring" strategy has been implemented in normal plant operation. Since design phases, both reuse and/or recovery of gas streams are considered before flaring. All Spanish refineries have one or more flare gas recovery compressors to reuse the gas as fuel in their processes

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO₂e)

24875372

Comment

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO₂e)

540562

Comment

Scope 2 (market-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO₂e)

649743

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009
Defra Voluntary 2017 Reporting Guidelines
European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

24696584

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

It doesn't include the emissions of non-industrial facilities (Headquarters and TechnLab), which are 3560 tCO2eq. However, these emissions are annually verified under ISO-14064

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

We are reporting a Scope 2 location-based and a market-based figures following this criterion: The located based emission factor for the electricity purchased to third parties is calculated based on the 2018 published information by Red Eléctrica Española (REE) of Spain regarding national energy balances (located factors were needed prior to the publication of the 2019 report for ISO-14064 certification audits carried out between January and March of 2020). The located based emission factor is 0.2460 metric tonnes CO2e per MWh. The market based emission factors for the electricity purchased to third parties is calculated based on the last published information by CNMC of Spain. The market based factors used depends on the electricity marketing company: Iberdrola: 0.20 metric tonnes CO2e per MWh, Endesa: 0.27 metric tonnes CO2e per MWh, Repsol E&G: 0.02 metric tonnes CO2e per MWh.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

536020

Scope 2, market-based (if applicable)

316871

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

Emissions from non-industrial facilities (Headquarters and TechLab), which are 620 tCO2eq (market based) and 7,414 tCO2eq (location based), are not included. However, these emissions are annually verified under ISO-14064

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Offices located outside industrial sites

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Scope 1 and 2 emissions from offices located outside industrial facilities are not included within the operational boundary based on the oil industry guidelines for the reporting of greenhouse gas emissions developed by IPIECA, IOGP and API. During 2019, Campus HQ, Tres Cantos building (where the Company's main Data Processing Center is located) and the Tecnology Lab verified their emissions following ISO 14064 standard.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

8264595

Emissions calculation methodology

This category includes emissions associated with the purchased of crude oil and hydrogen used both as a feedstock in our facilities - Repsol's GHG inventories include indirect CO₂ emissions resulting from the production of hydrogen. The emissions associated to this category are calculated by multiplying a specific emission factor for H₂ by the quantity of this gas purchased and distributed to the various Repsol refineries and chemicals facilities. The emission factor for hydrogen acquisition is 6.9 tCO₂/tH₂ for Spain, Portugal and Peru. This emission factor is the sum of two components: 1. Reaction component: the raw material used is 100% methane natural gas, with 100% H₂ recovery and 100% conversion to CO₂ (vapour reforming reaction: CH₄ + H₂O → CO + 3H₂, displacement reaction of water vapour: CO + H₂O → CO₂ + H₂), implying process emissions of 5.50 tCO₂/tH₂. 2. Necessary energy component: The fuel used in the reforming furnaces is natural gas, at a rate of 25,500 MJ/tH₂ (a). The natural gas emission factor will be used following the GHG emissions National Inventory in case of Spain and IPPC guidelines for national GHG inventories in case of Portugal and Peru. (a) Average value taken from the BREF of refineries, Integrated Pollution Prevention and Control (IPPC) -reference document on best available techniques for mineral oil and gas refineries, February 2003. -The Repsol GHG inventory includes indirect CO₂ emissions resulting from the extraction of crude to be processed in our refineries (Cartagena, La Coruña, Puertollano, Tarragona, Petronor and La Pampilla) and the crude used in Asema for asphalts production. The associated emissions in this category are calculated by multiplying an emission factor established by geographical area, the amount of oil that is imported and comes to our refineries. The emission factors used are obtained from the IOGP and are divided according to the following geographic areas: Africa, Asia, Australasia, Europe, FSU, Middle East, North America, South America.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Capital goods

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2019 Repsol bought IBIL (quick electrical vehicle charging stations) and 40% of United Oil Company (lubricant producer) and Eagle Ford shares from Equinor but this category is considered as not relevant. Capital goods are no likely to be material source of emissions in any given year for our company.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

To calculate emissions from this category we have considered the emissions associated with the extraction, production (liquefaction and regasification) and transportation of natural gas consumption in our facilities. Different natural gas origins have been considered and bibliographic emission factors that consider each of these sources. Moreover the emissions associated with the extraction, production and transport of fuels used to produce electricity we consume in our facilities have been taken into account by using an emission factor that considers the national energy mix. The result of this estimation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company. As an integrated oil and gas company, this category is not likely to be material because we consume energy we predominately produce ourselves.

Upstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

1173591

Emissions calculation methodology

To calculate emissions from shipping the following values are considered: - Average distance from regions of departure to port of arrival: This information was calculated based on Repsol Trading and transport department files. The Trading and transport business unit aims to manage and optimize marketing activities, supply and transportation of crude and products of the Group in international markets. - According to the information provided most vessels (76%) used to transport upstream products have been between 100,000 < dwt < 170,000 metric tonnes and its average loading is 70%. Based on previous years calculations (Fuel consumed based on a regression line which links the fuel consumption per day travelled with the deadweight, average speed for days travelled and four days to unload and return trip consumption estimates. Emissions factor for Fuel oil by IPCC 2006) we have calculated 0.00398 t CO2e/ kt km as emission factor. DEFRA considers 0.00446 t CO2e/ kt km for 100,000 < dwt < 199.999 metric tonnes and 48% as average loading, so we think our emission factor as aligned for this category estimation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The result of this calculation contributes less than a 1% to Scope 3 emissions, so Repsol considers this source as not relevant.

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has reported this category for many years, but this calculation contributes less than a 1% to Scope 3 emissions (around 0.03 million tonnes), so Repsol considers this source as not relevant. Emission factors used for calculation during these past years from Ecoinvent v.3 database. The Ecoinvent factors include all the life cycle, from cradle, including all upstream activities, to grave.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

14472

Emissions calculation methodology

CO2 emissions from Employee business travel and Employee hotel nights are estimated by Carlson Wagonlit Travel, a global leader specialized in business travel management. Carlson Wagonlit Travel, working for and together with its British client UK Defra (Department for Environment, Food and Rural Affairs), has developed an approach to calculating the burden business trips place on the environment. The "CO2 calculator" lets users calculate the carbon emissions from possible transportation alternatives by using specific CO2 emission factors. Travel agency has provided distance travelled (kilometres) and hotel nights by employees from the use of the following categories of mobile transport sources: § Rail transport. § Air transport: in this category there are two different types of distance travelled, long haul (>660 km) and medium-short haul. Each category has assigned a default emission factor (g CO2/km) and the CO2 emissions are calculated by the following equation: CO2 Emissions = Distance Travelled x Emission Factor. This year we have included not only Spain employee travel, but also from other sites with travel agency contracts: Brasil, Canada, Colombia, Ecuador, Mexico, Perú, Singapur, US&Canada, Vietnam, Trinidad Tobago

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

3645

Emissions calculation methodology

During 2012 Repsol employees have moved from various offices in Madrid to the Repsol Campus, the new headquarters opened by the company in the Méndez Álvaro area of Madrid. Surveys have been conducted to determine the following information: The number of people who have used each type of transport mode (walking, cycling, bus, taxi, subway, rail, motorcycle, private car, company car and car sharing) and the miles made with this mode of transport and the corresponding percentages in the case of using multiple modes. Emissions of individual workers are calculated by multiplying the number of kilometers travelled by each mode of transport by a specific bibliographic emission factor for each of these modes, considering the way round. With all this information Repsol has calculated the share of emissions from commuting to the old offices and those due to travel to campus after the move. The number has not changed in 2019.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This is a methodology conducted by Repsol for calculating these emissions. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has obtained an average emission factor (74 tCO₂ / year / service station) considering emissions from 10 company service stations. This is considered as a representative sample for the company since it includes all possible variations in terms of services, shop, washing machines, storage and dispensing, etc. The calculation of emissions in this category has been carried out with this average emission factor and the number of service stations that are leased and operated by Repsol. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Downstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

565990

Emissions calculation methodology

Repsol is able to estimate the CO₂ emissions from the external distribution of our activities using the UK Defra guidelines. It is important to stress, however, that several assumptions regarding transport capacities were required due to the complexity of logistics in our industry. In order to calculate External distributions/logistics emissions, Repsol has used the Guideline "Calculating CO₂ Emissions from Mobile Sources" available on the GHG Protocol website. The CO₂ emissions have been calculated using distance and cargo-based emission factors which are derived from the source: UK's Department for Environment, Food and Rural Affairs (DEFRA). The emission factors are specific to different types of vehicles, and they offer an expanded coverage of freight transport. The freight transport emission factors require activity data on tonne-kilometres travelled by the different types of freight vehicles used in Repsol operations, which included road and rail vehicles. Calculating emissions requires two main steps: Collect data on distance travelled by vehicle type. We have considered three types of vehicles: road transport (heavy goods vehicle), rail transport and ship container transport. Depending on its weight, it will be used in step 2 a specific emission factor provided by UK DEFRA. Convert tonne-kilometres to CO₂ emissions by multiplying results from step 1 by distance and cargo-based emissions factors. CO₂ Emissions = Distance travelled · Cargo x Emission Factor. This year we have added Sea transport of our chemical products using the same methodology.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This is a methodology conducted by Repsol for calculating these emissions. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has calculated emissions that take place in our customer's facilities for the use of chemicals which represent the greater number of sales for Repsol. For calculations Repsol has considered the criteria of the PAS 2050 standard and used an emission factor provided by one of our most important customers. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

180363249

Emissions calculation methodology

We take into account the total equity gas production (from all operated and non-operated assets) plus our downstream production from our refineries (Cartagena, Petronor, Tarragona, A Coruña, Puertollano and La Pampilla, plus ASES). The combustion emission factors used are from IPCC for each product category.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Activity data are based on the same source used for our external financial statements.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has calculated emissions from landfill and recycling of chemicals which represent the greater number of sales for Repsol. To be conservative, it was considered that only 50% of these products have been recycled while the rest has been taken to landfill. The company has conducted several case studies, considering different recycling processes and percentages for them. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has obtained an average emission factor (74 tCO₂ / year / service station) considering emissions from 10 company service stations. This is considered as a representative sample for the company since it includes all possible variations in terms of services, shop, washing machines, storage and dispensing, etc. The calculation of emissions in this category has been carried out with this average emission factor and the number of service stations that are owned by Repsol and leased to other entities. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol has obtained an average emission factor (74 tCO₂ / year / service station) considering emissions from 10 company service stations. This is considered as a representative sample for the company since it includes all possible variations in terms of services, shop, washing machines, storage and dispensing, etc. The calculation of emissions in this category has been carried out with this average emission factor and the number of service stations that are owned by Repsol and leased to other entities. The result of this calculation contributes to total Scope 3 emissions at a rate less than 1% and Repsol considers that they are not relevant to the company.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Repsol considers this category as not relevant since the company has not made significant investments that can be relevant in this category in 2019

Other (upstream)

Evaluation status

Please select

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Please select

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0004

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

25232604

Metric denominator

unit total revenue

Metric denominator: Unit total

56180772597

Scope 2 figure used

Location-based

% change from previous year

16

Direction of change

Increased

Reason for change

Regarding the numerator, during 2019 our total Scope 1 and 2 emissions were 25,232,604 t CO2e, which implies an increase of our emissions. The main contribution to this increase is due to the acquisition of Viesgo, which CCGT activity have increased in 2019, contributing to the switch coal-to-gas in Spain electricity mix, which implies a reduction in overall emissions in Spain. Despite this increase of our own emissions, we keep implementing energy efficiency activities in our assets. As an example, in Tarragona Chemical Plant, the replacement of the turbine that drives the propylene compressor with a more efficient one implies a decrease of 28,000 t CO2/year. The project also includes the replacement of the boiler water turbine by an electric motor. With respect to the denominator, Repsol's revenues in term of sales for 2019 was USD 56,180,772,597, 4% lower than the previous year's result (USD 58,647,377,537). The increase in the intensity figure is due the increase of the numerator and the decrease of the denominator.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)

Thousand barrels of refinery throughput

Metric tons CO2e from hydrocarbon category per unit specified

0.18

% change from previous year

5

Direction of change

Decreased

Reason for change

The throughput in refining decreased in 2019 respect to 2018 and our emissions decreased as well. In addition, several reduction actions have been implemented in our sites, resulting in a reduction of 69 kt CO2eq. As an example, in our Petronor Refinery in Bilbao we have installed a high heat recovery capacity Packinox Exchanger with a potential reduction of 5500 tCO2/y.

Comment

The indicator corresponds to the Refining segment

Unit of hydrocarbon category (denominator)

Thousand barrels of crude oil/ condensate

Metric tons CO2e from hydrocarbon category per unit specified

66.4

% change from previous year

10

Direction of change

Increased

Reason for change

Although we have increased our intensity compared to 2018, we continue working on our reduction plan in our operated assets. For example, Repsol has piloted new-generation membranes in one of its offshore assets in South East Asia. By upgrading the membranes, Repsol was able to increase the membrane system selectivity, while also increasing the methane recovery rate. In 2019, Repsol has achieved a reduction of more than 30,000 tonnes of carbon dioxide equivalent with this improvement. We will continue working in these kind of measures and we expect that in the following years we can see the results.

Comment

The indicator corresponds to the Exploration, production & gas processing segment

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division

Upstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division

1.28

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

1.28

Comment

Our methane intensity is expressed as m3 CH4 /m3 production

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	20104599	IPCC Fourth Assessment Report (AR4 - 100 year) <i>It doesn't include the emissions of non-industrial facilities and Technology Center, which are 3560 tCO2eq</i>
CH4	4511880	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	80105	IPCC Fourth Assessment Report (AR4 - 100 year)

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category

Combustion (excluding flaring)

Value chain

Upstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

685883

Gross Scope 1 methane emissions (metric tons CH4)

25

Total gross Scope 1 emissions (metric tons CO2e)

689708

Comment

Emissions category

Combustion (excluding flaring)

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

1782853

Gross Scope 1 methane emissions (metric tons CH4)

2694

Total gross Scope 1 emissions (metric tons CO2e)

1862876

Comment

Emissions category

Combustion (excluding flaring)

Value chain

Downstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

9148507

Gross Scope 1 methane emissions (metric tons CH4)

45

Total gross Scope 1 emissions (metric tons CO2e)

9183489

Comment

Refining, Chemicals, GLP

Emissions category

Flaring

Value chain

Upstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

261261

Gross Scope 1 methane emissions (metric tons CH4)

1168

Total gross Scope 1 emissions (metric tons CO2e)

291460

Comment**Emissions category**

Flaring

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

153958

Gross Scope 1 methane emissions (metric tons CH4)

797

Total gross Scope 1 emissions (metric tons CO2e)

174209

Comment**Emissions category**

Flaring

Value chain

Downstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

349554

Gross Scope 1 methane emissions (metric tons CH4)

26.88

Total gross Scope 1 emissions (metric tons CO2e)

349995

Comment**Emissions category**

Venting

Value chain

Upstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

0

Gross Scope 1 methane emissions (metric tons CH4)

1305

Total gross Scope 1 emissions (metric tons CO2e)

32619

Comment

Emissions category

Venting

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

3577886

Gross Scope 1 methane emissions (metric tons CH4)

159600

Total gross Scope 1 emissions (metric tons CO2e)

7567895

Comment

Emissions category

Fugitives

Value chain

Upstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

18.67

Gross Scope 1 methane emissions (metric tons CH4)

512.42

Total gross Scope 1 emissions (metric tons CO2e)

12829.18

Comment

Emissions category

Fugitives

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

1858

Gross Scope 1 methane emissions (metric tons CH4)

12253

Total gross Scope 1 emissions (metric tons CO2e)

308172

Comment

Emissions category

Fugitives

Value chain

Downstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

0

Gross Scope 1 methane emissions (metric tons CH4)

2013

Total gross Scope 1 emissions (metric tons CO2e)

46293

Comment

Emissions category

Process (feedstock) emissions

Value chain

Downstream

Product

Oil

Gross Scope 1 CO2 emissions (metric tons CO2)

2183662

Gross Scope 1 methane emissions (metric tons CH4)

0

Total gross Scope 1 emissions (metric tons CO2e)

2183662

Comment

Emissions category

Combustion (excluding flaring)

Value chain

Other (please specify) (Power generation)

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

1959159

Gross Scope 1 methane emissions (metric tons CH4)

36.7

Total gross Scope 1 emissions (metric tons CO2e)

1993377

Comment

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Spain	12412664
Europe <i>Spain is not included</i>	802827
Latin America (LATAM)	1418347
North America	1444315
Asia Pacific (or JAPA)	8618431

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
E&P	10939770
Refining	8596184
Chemicals	3157412
LPG business	1554
Marketing	1617
Lubricants, asphalts and specialized products	6672
Electricity and Gas (Power generation)	1993377

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	10939770	<Not Applicable>	Includes the emissions caused for all the upstream activities (exploration, development and production of oil and gas) of the company.
Oil and gas production activities (midstream)		<Not Applicable>	
Oil and gas production activities (downstream)	13756816	<Not Applicable>	Includes the emissions caused for all the downstream activities (refining, processing, distribution and marketing of products derived and the manufacture, distribution and marketing of chemical products derived from oil and gas) of the company. It doesn't include the emissions of non-industrial facilities and Technology Center, which are 3560 tCO2eq. Electric utility activities are included: 1.993.377 tCO2eq (Includes the emissions derived from low emissions power generation in our Electricity and Gas business)
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Spain	319233	154105	1316188	765975
Europe	100613	46593	232948	
Latin America (LATAM)	24462	24462	166181	
North America	91526	91526	125084	
Asia Pacific (or JAPA)	186	186	288	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
E&P	92393	92393
Refining	130079	112957
Chemicals	174918	90927
LPG business	4468	401
Marketing	34267	10075
Lubricants, asphalts and specialized products	3728	2300
Electricity and gas	96168	7819

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	92393	92393	Includes the emissions caused for all the upstream activities (exploration, development and production of oil and gas) of the company.
Oil and gas production activities (midstream)			
Oil and gas production activities (downstream)	443627	224479	Includes the emissions caused for all the downstream activities (refining, processing, distribution and marketing of products derived and the manufacture, distribution and marketing of chemical products derived from oil and gas) of the company. It doesn't include the emissions of non-industrial facilities and Technology Center, which are 7414 tCO2eq (market based and 620 location based). Electric utility generation activities are included: - 96,168 Scope 2, location-based, metric tons CO2e - 7,819 Scope 2, market-based (if applicable), metric tons CO2e (Includes the emissions derived from low emissions power generation in our Electricity and Gas business)
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	145535	Decreased	0.7	Since Repsol acquired Viesgo, all of our sites in Spain started consuming electricity commercialized by Electricity & Gas (E&G) business. Repsol E&G reduced its emission factor from 0.21 metric tCO2e/MWh in 2018 to 0.02 tCO2e/MWh in 2019, with a 93,5% of the electricity commercialized from renewables (source: CNMC https://www.cnmc.es/). The percentage of decrease has been calculated with the change in emissions in derived from this consumption and the emissions Scope 1+Scope 2 (market based) of the company in 2018: 22442976 metric tonnes CO2e.
Other emissions reduction activities	171000	Decreased	0.8	The change in emissions has been calculated considering the total avoided emissions associated to quantified reduction activities carried out by the company during 2019 Included in our reduction plan 2014-2020 and 2018-2025. Emissions value (percentage) has been calculated dividing 171000 metric tons CO2e and the emissions Scope 1+Scope 2 (market based) of the company in 2018: 22442976 metric tonnes CO2e.
Divestment		<Not Applicable >		
Acquisitions	1900000	Increased	8.5	In November 2018, Repsol reinforced its position as a multienergy supplier by starting its electricity generation and gas and electricity trading activities with the acquisition of the unregulated low-emission electricity generation businesses and the gas and electricity trading company from Viesgo. 2019 was the first year that Repsol incorporates the emissions from this subsidiary, which implied an increase of 1,9 MtCO2. These emissions came from the CCGT, which activity have increased in 2019 compared to 2018, contributing to the switch coal-to-gas in Spain electricity mix. During 2019, Spain electricity mix has switched 25 GWh from coal to gas overall (source: Red Eléctrica de España). In absolute terms, 23,6 MtCO2 were avoided from coal use, and Repsol contributed with 6 MtCO2 avoided (considering that 1 tonne emitted in a CCGT is equivalent to 3 tonnes of CO2 in a coal generation plant), increasing its global emissions in 1,9 MtCO2 from CCGT. In net terms, in Spain global electricity mix has been reduced in 14,3 MtCO2 with this switch, and Repsol has contributed in 4,1 MtCO2 to this reduction. The increase of the emissions has been calculated dividing 1900000 metric tons CO2e and the emissions Scope 1+Scope 2 (market based) of the company in 2018: 22442976 metric tonnes CO2e.
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	69264579	69264579
Consumption of purchased or acquired electricity	<Not Applicable>	716187	526588	1242775
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	625756	625756
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	16576	<Not Applicable>	16576
Total energy consumption	<Not Applicable>	732763	70416923	71149686

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

33444588

MWh fuel consumed for self-generation of electricity

18450846

MWh fuel consumed for self-generation of heat

2470997

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

12522745

Emission factor

2.401

Unit

metric tons CO2 per metric ton

Emissions factor source

Real data

Comment

We operate in different countries with different quality of fuel gas. The factor reported is the average of all the factors that has been used to calculate the GHG emissions.

Fuels (excluding feedstocks)

Fuel Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

33344649

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

32095109

MWh fuel consumed for self-generation of steam

557963

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

691577

Emission factor

2.401

Unit

metric tons CO2 per metric ton

Emissions factor source

Real data

Comment

We operate in different countries with different quality of fuel gas. The factor reported is the average of all the factors that has been used to calculate the GHG emissions.

Fuels (excluding feedstocks)

Other, please specify (Fuel-oil)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

763215

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

763215

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0774

Unit

metric tons CO2 per GJ

Emissions factor source

2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

690701

MWh fuel consumed for self-generation of electricity

679305

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

11395

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0741

Unit

metric tons CO2 per GJ

Emissions factor source

2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

172978

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

172978

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0631

Unit

metric tons CO2 per GJ

Emissions factor source

2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Crude Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

848449

MWh fuel consumed for self-generation of electricity

848449

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0733

Unit

metric tons CO2 per GJ

Emissions factor source

2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	16178963	8677283	765358	16576
Heat	29502275	29502275	0	0
Steam	10246319	10246319	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Spain

MWh consumed accounted for at a zero emission factor

765975

Comment

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	92.83	It includes natural gas liquids
Natural gas liquids, million barrels		
Oil sands, million barrels (includes bitumen and synthetic crude)		
Natural gas, billion cubic feet	935.89	

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

For the estimation of proven and unproven oil and gas reserves, Repsol uses the criteria established by the system "SPE / WPC / AAPG / SPEE Petroleum Resources Management System", usually referred to by its acronym SPE-PRMS (SPE - Society of Petroleum Engineers) "

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1				

C-OG9.2d

(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/ natural gas liquids	30	32	38	
Natural gas	70	68	62	
Oil sands (includes bitumen and synthetic crude)	0	0	0	

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Development type

Onshore

In-year net production (%)

59

Net proved reserves (1P) (%)

64

Net proved + probable reserves (2P) (%)

62

Net proved + probable + possible reserves (3P) (%)

62

Net total resource base (%)

70

Comment

The breakdown includes only onshore and offshore categories, as most of the listed development types can be included in both categories

Development type

Other, please specify (Offshore)

In-year net production (%)

41

Net proved reserves (1P) (%)

36

Net proved + probable reserves (2P) (%)

38

Net proved + probable + possible reserves (3P) (%)

38

Net total resource base (%)

30

Comment

The breakdown includes only onshore and offshore categories, as most of the listed development types can be included in both categories

C-OG9.3a

(C-OG9.3a) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per day.

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	1013

C-OG9.3b

(C-OG9.3b) Disclose feedstocks processed in the reporting year in million barrels per year.

	Throughput (Million barrels)	Comment
Oil	314.67	Density: 0.879 t/m3 (average density of all kinds of oils processed)
Other feedstocks	62.51	Density: 0.879 t/m3
Total	377.17	

C-OG9.3c

(C-OG9.3c) Are you able to break down your refinery products and net production?

Yes

C-OG9.3d

(C-OG9.3d) Disclose your refinery products and net production in the reporting year in million barrels per year.

Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Other, please specify (Intermediate distillates)	200.11
Gasolines	74.1
Fuel oils	21.87
Liquified petroleum gas	11.48
Asphalt and tar	9.05
Lubricants	3.36
Other, please specify (Others including petrochemical products)	68.15

C-OG9.3e

(C-OG9.3e) Please disclose your chemicals production in the reporting year in thousand metric tons.

Product	Production, Thousand metric tons	Capacity, Thousand metric tons
High value chemicals (Steam cracking)	1804.6	2475

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Renewable energy	Applied research and development	81-100%	11368000	Repsol is developing off-shore wind energy as well as first generation and advanced biofuels (we follow OGCI classification for renewable energy technologies)
Other, please specify (Low carbon technologies)	Applied research and development	81-100%	5916000	Repsol is making developments in CCUS, Energy efficiency, blue or green hydrogen, sustainable mobility, Natural Climate solutions
Renewable energy	Full/commercial-scale demonstration	81-100%	8769600	Wind plus project
Other energy efficiency measures in the oil and gas value chain	Large scale commercial deployment	81-100%	58301600	Energy efficiency projects in industrial facilities (refining and chemicals)

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.

50

Units in \$/bbl

C-OG9.8

(C-OG9.8) Is your organization involved in the sequestration of CO2?

Yes

C-OG9.8a

(C-OG9.8a) Provide, in metric tons CO₂, gross masses of CO₂ transferred in and out of the reporting organization (as defined by the consolidation basis).

	CO ₂ transferred – reporting year (metric tons CO ₂)
CO ₂ transferred in	0
CO ₂ transferred out	22861

C-OG9.8b

(C-OG9.8b) Provide gross masses of CO₂ injected and stored for the purposes of CCS during the reporting year according to the injection and storage pathway.

Injection and storage pathway	Injected CO ₂ (metric tons CO ₂)	Percentage of injected CO ₂ intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO ₂ injected and stored (metric tons CO ₂)
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C-OG9.8c

(C-OG9.8c) Provide clarification on any other relevant information pertaining to your activities related to transfer and sequestration of CO₂.

Part of the CO₂ emissions generated at Petronor Refinery are transferred to an external enterprise that use it as a raw material. The CO₂ flow transferred is registered with ultrasonic flow meters located in the refinery to calculate the amount sold.

In addition, USD 67 million dollars will initially be invested in order to build one of the largest net zero emissions synthetic fuel production plants in the world, based on green hydrogen generated with renewable energy. This plant will be located near our facilities in Bilbao (Spain). The main feature of these new fuels is that they are produced using water and CO₂ as the only raw materials. They can be used in the combustion engines that are currently installed in automobiles in Spain and the rest of the world, as well as in airplanes, trucks, and other machinery.

Repsol also participates in the development of these technologies as a member of the OGCI with the investments made by the OGCI Climate Investments fund, and related to carbon capture, use and storage (CCUS) the following portfolio has being developed:

- Solidia: a company dedicated to the production of cement and concrete, which has patented a technology that allows the use of CO₂ in the setting of concrete instead of water.
- Eonic: a pioneering company in the development of catalytic systems, which has been able to incorporate up to 50% in weight of CO₂ as a raw material in the production of polyols, the basis of all polyurethanes.
- Svante: a company that has developed a process for capturing CO₂ which uses a patented architecture of solid adsorbent structures that avoids the high costs associated with other conventional processes
- Net Zero Teesside: a CCUS project, located in the North East of England, which aims to deliver the UK's first zero-carbon industrial cluster
- WV Resources: Wabash Valley Resources are developing a project that will capture and sequester 1.5-1.75 million tons of CO₂ annually from their co-located ammonia plant, to create the world's first ammonia produced with near zero carbon footprint
- Elk Hills Carbon LLC: is a CCUS project led by California Resources Corporation (CRC), the largest oil and natural gas producer in California, which will capture CO₂ from a natural gas power plant
- Starwood Energy Elysian Ventures Carbon Capture Project: This joint venture is one of the world's first large-scale commercial projects to capture CO₂ from a natural gas power plant and will qualify for carbon capture incentives

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

REPSOL ISO14064 Chemical Facilities.pdf
REPSOL ISO14064 Non industrial facilities.pdf
REPSOL ISO14064 Refining Facilities - Spain refineries.pdf
REPSOL ISO14064 Upstream assets - Canada.pdf
REPSOL ISO14064 Refining Facilities - Peru refinery.pdf
REPSOL ISO14064 Upstream assets - Casablanca.pdf
REPSOL ISO14064 Upstream assets - Ecuador.pdf
REPSOL ISO14064 Upstream assets - Malaysia.pdf
REPSOL ISO14064 Upstream assets - Margarita.pdf
REPSOL ISO14064 Upstream assets - Marcellus.pdf

Page/ section reference

The attached information contains: - Chemical facilities (page 4). - Non industrial facilities (page 2). - Refining Facilities: Spanish refineries (page 4-7) and Peru refinery (page 5). - Upstream assets: Casablanca (page 2), Margarita (page 2), Malaysia (page 2), Canada Business (page 2), Marcellus (page 2), Ecuador (page 2)

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

99

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/ section reference

"2019 Integrated management report". Detail of indicator 305-1 Direct GHG emissions (Scope 1) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/ section reference

"2019 Integrated management report". Detail of indicator 305-1 Direct GHG emissions (Scope 1) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

REPSOL EU-ETS Electric generation facilities - Algeciras.pdf

REPSOL EU-ETS Electric generation facilities - Escatron.pdf

Page/ section reference

- Electric generation facilities: Algeciras (page 4), Escatron (page 1)

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

98

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

REPSOL ISO14064 Chemical Facilities.pdf
REPSOL ISO14064 Non industrial facilities.pdf
REPSOL ISO14064 Refining Facilities - Spain refineries.pdf
REPSOL ISO14064 Upstream assets - Canada.pdf
REPSOL ISO14064 Refining Facilities - Peru refinery.pdf
REPSOL ISO14064 Upstream assets - Casablanca.pdf
REPSOL ISO14064 Upstream assets - Ecuador.pdf
REPSOL ISO14064 Upstream assets - Malaysia.pdf
REPSOL ISO14064 Upstream assets - Margarita.pdf
REPSOL ISO14064 Upstream assets - Marcellus.pdf

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Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

74

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/ section reference

"2019 Integrated management report". Detail of indicator 305-2 Direct GHG emissions (Scope 2) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/ section reference

"2019 Integrated management report". Detail of indicator 305-2 Direct GHG emissions (Scope 2) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/section reference

"2019 Integrated management report". Detail of indicator 305-3 Direct GHG emissions (Scope 3) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/section reference

"2019 Integrated management report". Detail of indicator 305-3 Direct GHG emissions (Scope 3) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/section reference

"2019 Integrated management report". Detail of indicator 305-3 Direct GHG emissions (Scope 3) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019_integrated_management_report_tcm14-175429.pdf

Page/section reference

"2019 Integrated management report". Detail of indicator 305-3 Direct GHG emissions (Scope 3) in page 58. At the end of the folder "2019 Verification report", pages 153-157 of the pdf file.

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Emissions reduction activities	ISO 14064-1 (reasonable assurance)	During 2019, we implemented actions that reduce our CO2 emissions in 171 ktons. All the initiatives have been verified according to ISO14064, the same standard used to verify the GHG inventory. The reduction was a result of different investment and operating improvement actions across all the Company's operations. These verifications are carried out with annual frequency. To ensure transparency in the management of GHGs it is important for the company that a third party certifies this type of actions. These actions mainly include improvements in energy efficiency through projects such as energy unit integration, steam consumption optimization, improvements in isolation, furnace modifications, residual heat recovery, technological updating of the equipment, installation of variable speed motors, as well as actions to reduce the amount of flared and vented gas.
C6. Emissions data	Year on year change in emissions (Scope 1)	AA 1000 Assurance Standard (Moderate assurance) ISAE3000 (limited assurance).	The change in Scope 1 emissions between years 2006 and 2019 has been reported in our Integrated Management Report. In 2019 PwC has verified 100% Scope 1 GHG emissions. The data has been verified according to AA 1000 and ISAE3000, the standard used to verify the 2019 Integrated Management Report. These verifications are carried out with annually. To ensure transparency in the management of GHGs it is important for the company that a third party certifies the data of the company reports. REPSOL ISO14064 Chemical Facilities.pdf REPSOL ISO14064 Refining Facilities - Spain refineries.pdf Canada_REPSOL 14064 declaration 2019 -REDUCCION ACTIONS finish firmado.pdf REPSOL ISO14064 Refining Facilities - Peru refinery.pdf REPSOL 14064 declaración Ecuador 2019 EE0218 - sp-AD rev1 firmado.pdf REPSOL 14064 declaration Malaysia 2019 -Kinabalu - EE0216 finish firmado.pdf REPSOL 14064 declaration Malaysia 2019 -PM3- EE0217, EE0190, EE0204 finish firmado.pdf
C6. Emissions data	Year on year change in emissions (Scope 2)	AA 1000 Assurance Standard (Moderate assurance) ISAE3000 (limited assurance).	The change in Scope 2 emissions between years 2006 and 2019 has been reported in our Integrated Management Report. In 2019 PwC has verified 100% Scope 2 GHG emissions. The data has been verified according to AA 1000 and ISAE3000, the standard used to verify the 2019 Integrated Management Report. These verifications are carried out with annually. To ensure transparency in the management of GHGs it is important for the company that a third party certifies the data of the company reports. 2019_integrated_management_report_tcm14-175429.pdf
C6. Emissions data	Year on year emissions intensity figure	AA 1000 Assurance Standard (Moderate assurance) ISAE3000 (limited assurance).	The change in our emission intensity figure between years 2017 and 2019 has been reported in our Integrated Management Report. In 2019 PwC has verified the emission intensity figures reported. The data has been verified according to AA 1000 and ISAE3000, the standard used to verify the 2019 Integrated Management Report. These verifications are carried out with annually. To ensure transparency in the management of GHGs it is important for the company that a third party certifies the data of the company reports. 2019_integrated_management_report_tcm14-175429.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS
EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS

% of Scope 1 emissions covered by the ETS

59

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2019

Period end date

December 31 2019

Allowances allocated

115129

Allowances purchased

79728

Verified Scope 1 emissions in metric tons CO2e

194857

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

EU ETS

% of Scope 1 emissions covered by the ETS

72

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2019

Period end date

December 31 2019

Allowances allocated

8984900

Allowances purchased

3465319

Verified Scope 1 emissions in metric tons CO2e

12450219

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

1. Manage EU ETS positions of Repsol's installations as a single integrated position to reduce emission costs and minimize market risk:

Repsol manages deficit positions of all affected business units (in Spain the Refining and Chemicals Business Units and in Portugal the Chemicals Business Units) in the EU ETS. We are committed to reducing energy use and GHG emissions in all our operations. Our energy management systems enable us to establish energy efficiency plans and emissions reduction targets, both annually and in the long-term. Specifically, we are working on two different CO2 reduction plans that overlap: 2014-2020 plan with an emissions reduction target of 2.1 million tCO2 eq and 2018-2025 plan with the objective of achieving an annual reduction of 3 million tons of CO2e at the end of the period compared to 2017. As an example, in our Petronor Refinery in Bilbao we have installed a high heat recovery capacity Packinox Exchanger with a potential reduction of 5500 tCO2/y.

During 2019 Repsol closely followed the EU legislative measure referred to the EU ETS (Phase IV development) and anticipating price effects using different market tools such as futures, forwards and other structured operations that have contributed to reduce the risk of the Group. In addition, we participate in IETA (International Emission Trading Association) emerging trading markets working group following the new carbon market developments wherever introduce national trading systems could have implications for Repsol's upstream or downstream assets.

2. New market-based Mechanism.

Following article 6 of Paris Agreement a mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development should be established under the authority on a voluntary basis. It shall be supervised and shall aim:

- (a) To promote the mitigation of greenhouse gas emissions while fostering sustainable development;
- (b) To incentivize and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities;
- (c) To contribute to the reduction of emission levels, which will benefit from mitigation activities resulting in emission reductions that can also be used to fulfil its nationally determined contribution; and
- (d) To deliver an overall mitigation in global emissions.

UNFCCC (United Nations Framework Convention on Climate Change) will be responsible for developing rules as well as for the governance of mechanisms. Repsol is supporting those measures, monitoring and participating in industrial associations and think tanks in order to define the modalities and procedures of NMM.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

MADRE DE DIOS AMAZON REDD PROJECT

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

6730

Number of credits (metric tonnes CO2e): Risk adjusted volume

6730

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

CORDILLERA AZUL NATIONAL PARK REDD PROJECT

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

1000

Number of credits (metric tonnes CO2e): Risk adjusted volume

1000

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

- Navigate GHG regulations
- Stakeholder expectations
- Change internal behavior
- Drive energy efficiency
- Drive low-carbon investment

GHG Scope

- Scope 1
- Scope 2

Application

All business units in all countries where the company operates.

Actual price(s) used (Currency /metric ton)

25

Variance of price(s) used

Our carbon price pathway starts with 25 USD\$/t CO2 and this value will increase in the future. The aim is to reach 40 USD\$/t CO2 by 2025.

Type of internal carbon price

Shadow price

Impact & implication

As an energy company we are convinced that setting a global carbon pricing and applying it homogeneously to all sectors is the best tool to move toward a low emissions future. In this way, each ton of CO2 would have an associated price that everyone, from the industry to the final consumer, would see reflected in their activity and that would allow them to become aware and modify their habits toward a production and consumption of energy that is efficient as possible. This would also be reinforced by clear and transparent information on costs and their impact on each party involved. The global application of this measure would promote a model in which sustainability and competitiveness would reinforce each other. Furthermore, the homogeneous application at a global level would eliminate the risk of delocalization of industry and would avoid overlap with other environmental policies currently in force, aimed at incentivizing or penalizing specific sectors or technologies, which undermine the effectiveness of this tool and whose cost per ton of CO2 avoided is much greater than the result of putting the same price on each ton of CO2. This system would also make it possible to address the transition to a low-emissions future in an orderly manner and at the lowest cost to the consumer. In accordance with this position, and in the absence of global measures, Repsol has established an internal carbon pricing that we apply to every new investment we make. The values we have set are US\$25/t in 2018, reaching US\$40/t from 2025.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

- Yes, our suppliers
- Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number

10

% total procurement spend (direct and indirect)

8

% of supplier-related Scope 3 emissions as reported in C6.5

1.2

Rationale for the coverage of your engagement

8% is the result of dividing the expenditure of those initiatives that aim to incorporate motor 6 engines in the trucks the company use for product transportation (downstream businesses) by the total expenditure of downstream business units

Impact of engagement, including measures of success

The percentage of trucks (downstream businesses) equipped with euro 6 engines has increased from 65% to 75% in 2019. Considering a total amount of 317million km traveled by road in 2019, and that emissions for trucks equipped with euro 6 engines are 129 gCo2eq/km, the initiative has reduced 6,480 Tn CO2eq in 2019, and further reductions are expected in coming years, as a higher percentage of trucks in the company will be equipped with these engines.

Comment

Percentage of scope 3 emissions has been calculated considering only Downstream transportation and distribution source.

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

% of suppliers by number

20

% total procurement spend (direct and indirect)

37

% of supplier-related Scope 3 emissions as reported in C6.5

5

Rationale for the coverage of your engagement

The 37% is the result of dividing the expenditure of those areas which have engagement with their suppliers by the total expenditure of the company. The areas included in the calculation are: Refining and chemical Division, Spain and Portugal commercial Division and Spain and Portugal lubricants Division

Impact of engagement, including measures of success

At the moment in the company is difficult to measure the exact impact of the engagement with our suppliers. We have some projects ongoing, aiming to work with suppliers to obtain primary data for GHG emission calculation. Percentage of scope 3 emissions has been estimated dividing all scope 3 categories related with suppliers (purchased goods and services, waste generated in operations and downstream transportation) by total figure scope 3.

Comment

Our supply chain management system evaluates suppliers to identify, among others, environmental risks. During supplier evaluation process suppliers must meet various qualification requirements among which are several related to climate change (emissions management and energy efficiency management). Consequently during the negotiation Repsol adds a special sustainability clause in the General Conditions for Purchasing and Contracting. In addition the suppliers of our refineries, chemical facilities and others assets certified with the international standard ISO50001 needs to meet a requirement of energy efficiency in all the equipment and services contracted. Because of that we have developed a procedure that establishes the energy efficiency requirements for the purchase of equipment and service contracts.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Repsol also seeks to engage investors and the civil society at large. In 2019 we held the fifth "Repsol Sustainability Day", an event for analysts and investors, where the key projects were explained. Investors are also engaged through General Shareholders's Meeting.

In addition, Repsol promotes the Entrepreneurs Fund of the Fundación Repsol. The Fund is aimed at entrepreneurs with innovative technological projects in the field of energy who have set up or intend to set up a company. The 8th call of proposals of Fundación Repsol's acceleration program closed on March, 4th 2019 with a total of 649 applications. This year the increase in the number of applications for certain scopes with respect to last year stands out. In particular, new materials, circular economy and biotech, and digitalization and advanced mobility (+16%). Additionally, almost 50% of the applications coming from outside of Spain which translates into an increase of 25% with respect to 2018. The measurement of success of the Entrepreneurs Fund is the number of ideas received every year. This edition has seen an increase of 78% in the number of entrepreneurs interested in receiving support from the Repsol Entrepreneurs Fund.

The Repsol Foundation has also conducted Learning Workshops that help schoolchildren to understand current and future energy challenges. In 2019, more than 4,300 students from 6th grade and 3rd grade from 90 schools in A Coruña, Cartagena, the Basque Country, Puertollano and Tarragona enjoyed the activities of the Aprendenergía workshops. This initiative was developed during school hours in the classroom or in the centers of visits of the Repsol Industrial Complexes. Moreover, the Repsol Foundation and the Repsol Refinery held the Science and Energy Weeks from 23 April to 10 May in the municipalities of A Coruña and Arteixo. The different activities were attended by more than 5400 participants.

The Repsol Foundation is also collaborating with the Fundación Carolina scholarship program, granting postgraduate scholarships to women from Latin American countries and Portugal who wish to continue their education in STEAM disciplines (Science, Technology, Engineering, Art, and Mathematics) at Spanish universities. With this initiative we contribute to promoting STEAM careers and the professional development of women in these areas of knowledge, with the aim of incorporating their talent into research, innovation, and technology, all key in meeting the challenges of the energy transition.

To prioritize engagement Repsol analyzes the portfolio of socially responsible investors and seeks to increase it proving the effort carried out to reduce GHG emissions. A measurement of success is the increase of the percentage of socially responsible investors in our portfolio, which has increased to a 29.9% in 2019 (from 14% in 2017).

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support with minor exceptions	We answered to EC public consultation related to the implementation of the Emissions Trading System (ETS) Reform: -Revising the rules for free allocation in the EU Emissions Trading System. We also shared our messages with trade associations such as FuelsEurope, IOGP. Scope: European Union	We believe EU ETS should remain as the cornerstone of climate policies in the EU. The EU ETS must therefore provide the right incentives towards a competitive low-carbon economy. It should support industrial competitiveness, guarantee security of supply and assure sustainability. It must balance the efforts and reinforce competitiveness as a fundamental element to support growth and jobs. In the absence of a global agreement on climate change that includes all major contaminant countries, the risk of carbon leakage is critical and harms European Union industry, while discourages new industrial investments.
Climate finance	Support with major exceptions	We have been directly involved with the policy makers in the discussions about the EU Action Plan on Financing Sustainable Growth. We answered to EC public consultations related to Sustainable Finance: - Feedback on the draft technical advice on minimum requirements for the EU climate transition benchmarks and the EU Paris-aligned benchmarks and benchmarks' ESG disclosures - Feedback on the TEG preliminary recommendations for an EU Green Bond Standard - Feedback on the usability of the taxonomy - Feedback on the first round climate mitigation activities - Feedback on TEG report on EU Taxonomy	Repsol is aware of the importance of the EU Action Plan on Financing Sustainable Growth launched by the European Commission to reorient EU capital flows towards more sustainable investments. Innovation, cutting edge technology and new applications for already existing technologies will be decisive to undertake the paradigm change. For that, access to competitive funding will be crucial; therefore, sustainable finance will play a critical role in the energy transition. A financial approach, based on the principles of technology neutrality, cost effectiveness and free competition, should allow all involved sectors to take part of this energy process recognizing their valuable contribution.
Regulation of methane emissions	Support	Repsol monitors all the changes in methane regulation in countries where we operate, such as Canada, USA and the future EU regulation in the context of Europe's Green Deal	Repsol supports the identification of sources, the measurement and the mitigation of methane emissions. We are committed to reducing methane emissions at our operations, and we support the role that regulation plays in achieving this, along with voluntary efforts like our objective to reduce methane emission intensity by 25% in our operated exploration and production assets by 2025. Governments have a pivotal role in developing and implementing policy and regulation that achieve ambitious methane emission reduction outcomes. For that reason, Repsol, together with other companies and institutions, proposed policy recommendations to the European Commission that drive to reduce methane emissions in the framework of Europe's Green Deal to reach climate neutrality by 2050. Repsol supports policy and voluntary measures to address methane as part of EU Green Deal like Oil and Gas Methane Partnership. Repsol is endorsed to this initiative since 2016, and we continue supporting it through its transition to OGMP2.0.
Other, please specify (Renewable energy in transport)	Support	We have been directly involved with the European Commission in the discussions about the progress of the Delegated Act on the co-processing, within the Renewable Energy Directive (RED II) framework.	In the current framework of decarbonisation of the economy, co-processing is expected to have an increasing role in providing low carbon renewable fuels at economically competitive prices by using existing refining, transport and storage infrastructure. It can be considered as a key technology pathway for enabling higher share of sustainable renewable transportation fuels and therefore higher reductions of GHG emissions in the transport sector. A robust method for determining the renewable share in the co-processing output is needed. Given the complexity of the refinery operations, it is crucial to consider the experience in those countries where co-processing has been taking place in the past years. The methodology developed should allow Member States to maintain nation-wide-yields or conversion factors, which are already recognised in their national legislation.
Other, please specify (Clean Hydrogen)	Support with minor exceptions	We answered to EC public consultation related to the European Association for Clean Hydrogen (Horizon Europe program) both as Repsol as well as through IOGP.	We support EC's proposal on the specific case of Clean Hydrogen. Main comments were: - The scope of the partnership to be broadened to cover other aspects of the hydrogen applications and not a narrow approach only on the hydrogen cells: "Wider scope and participation in the proposed partnership will open up for the use of hydrogen in wide range of energy end-use". - A clear definition of clean hydrogen which should include a wide range of technologies, including those based on natural gas and CCS/CCU. The role of the industry is key in taking innovation to the last stage of development.
Other, please specify (LNG terminals)	Support with minor exceptions	We answered to EU survey regulatory for LNG terminals.	We provided feedback as LNG terminal users in Spain, sharing thoughts and experiences. No legislative proposals were included in this feedback.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

International Association of Oil and Gas Producers (IOGP)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IOGP recognizes the risks of climate change due to rising greenhouse gas emissions and has welcomed the Paris Agreement. Greenhouse gas emissions come from a variety of sources, including agriculture and hydro-carbon-fueled transport and industrial activity that the world still needs to drive economic growth and improve living conditions in developing nations. IOGP supports the international community's commitment to address the global challenge of climate change and also believes that the oil and gas industry is very much a part of the solution to this challenge, which can be addressed while meeting society's future energy needs. The long-term objective of climate change policy should be to reduce the risk of serious impacts on society and ecosystems, while recognizing the importance of reliable and affordable energy to society

How have you influenced, or are you attempting to influence their position?

Repsol participates in the EU Committee which is the one directly dealing with European legislation and engaging European regulators. Under the EU Committee there are also many Sub Committees and Task Forces in which we are also involved. The special interest for this project is the Energy and Climate Sub-committee reviewing the Climate Change policy. We collaborate with the position participating in conference calls, face to face meetings, reviewing and making comments to position papers.

Trade association

BusinessEurope

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Climate change is a global challenge that requires global actions. BUSINESSEUROPE is committed to and aware of the challenges that climate change presents as well as the impacts of human activities. This is why they firmly expect an ambitious legally binding global agreement, which reflects the long-term objective of limiting global warming below 2°C. Development of a global carbon market should play a stronger role in the future. Economic instruments can best help to stimulate investment in innovative low-carbon technologies and products in locations where they deliver the greatest possible climate benefits at the lowest costs.

How have you influenced, or are you attempting to influence their position?

Repsol participates in several working groups such as Energy and Climate Action Working Group, the Environment Working Group, the Tax Policy Group, the BusinessEurope's Advisory, Support Group and Low Emission Mobility Taskforce.

Trade association

FuelsEurope

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

FuelsEurope recognizes that climate change is real and warrants action towards a global challenge. To address a global challenge global actions are required. These measures should however be compatible with the need to supply energy to a growing world population. Increasing volumes of energy – secure, reliable and affordable - are necessary to fight poverty in several regions of the world, to permit access to higher living standards to a rising middle class in many developing countries and to maintain today's life quality in the developed countries. The EU refining industry is committed to contribute to this objective by continuing to reduce its CO2 emissions and providing the economy and citizens with low-carbon fuels and other products that society needs. Development of a diversity of energies and energy carriers will give an economy flexibility, resilience and the possibility for the market to select the optimal solution for every sector and use. Liquid fuels, with their unique characteristics will continue to be employed in many transport fields. Therefore, the EU refining industry has an important and enduring role to play in the energy choices of the future, by providing low-carbon liquid fuels to complement low-carbon electrons, gas and hydrogen as energy carriers. Technology and collaboration across industries will facilitate the production of these low-carbon liquid fuels.

How have you influenced, or are you attempting to influence their position?

Repsol is member of the board and participates actively in several working groups of the association related with EU Emission Trade System, Transport, etc.

Trade association

PlasticsEurope

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

PlasticsEurope is one of the leading industrial trade associations in Europe. It gathers 55 industrial companies, which produce nearly 90% of all polymers across the EU28 member states plus Norway, Switzerland and Turkey. Plastics Europe promotes the positive contributions of plastics by communicating plastics contribution to sustainable development, innovation and quality of life. The association highlights the material's beneficial properties throughout its life cycle, making relevant contributions to sustainable welfare by facilitating resource efficiency and climate protection: Not only most plastics products require less energy for their production if compared to alternative materials but also many of them help saving significant amounts of energy during their lifespan use (lightweight materials for transport, insulation for building and construction, energy savings in packaging, etc). Plastics Europe promotes the use of Life Cycle Thinking (LCT) to improve understanding about product benefits and to take more informed decisions. As a scientific method, Life Cycle Assessment (LCA) is a technique to analyze the potential environmental impacts associated with a product, process or service.

How have you influenced, or are you attempting to influence their position?

Repsol participates in several working groups and task forces such as Life Cycle Task Force, among others. This group is developing eco profiles that are Life Cycle Inventory datasets (LCI) and Environmental Product Declarations (EPD) for plastics. Repsol is also collaborating with Plastics Europe to implement Circular Economy concepts and approach on what regards plastic materials.

Trade association

CEFIC

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

CEFIC is one of the leading industrial trade associations in Europe, and acts as the voice of the chemical industry in Europe. It represents 29,000 large, medium and small chemical companies in Europe, which directly provide 1.2 million jobs and account for 17% of world chemical production. The chemical industry is committed to contributing to the agreed EU targets of reducing greenhouse gas emissions, including the Clean Energy Package proposal of the European Union and its ambitions to reform and harmonise energy markets in Europe and to pioneer the low-carbon economy for the benefit of all its citizens. In December 2015, the European Chemical Council publicly backed the Paris Climate Agreements with their strong global commitments, and applauded the diplomatic efforts to achieve an ambitious and globally-binding agreement, as stated again on a press release in June 1st 2017. With the strong belief that the EU chemical industry is a pillar for tomorrow's low carbon economy, the association reminds that Chemical innovations enable current and future climate change solutions, including renewable energy, energy storage and thousands of products to improve energy efficiency, such as in vehicles and buildings.

How have you influenced, or are you attempting to influence their position?

Repsol participates in several working groups and task forces such as Energy & Climate Change Programme Committee, among others.

Trade association

Liquid Gas Europe

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Climate change constitutes a problem of unprecedented scope, complexity and importance for humanity in general and for the policy community in particular. Achieving a global consensus on how and when to act while balancing competing environmental, social, political and economic imperatives is a challenge but it is a challenge that must be met. As citizens and as representatives of a clean and relatively low carbon gaseous fuel, the European LPG industry strongly supports the emergence of an ambitious EU climate strategy, and is committed to optimizing LPG's role in the transition towards a more climate friendly energy model. Combining an established market presence with CO2 emission advantages over more carbon intensive alternatives such as coal, oil and conventionally generated electricity, LPG can and should be part of the solution. LPG's climate credentials are significantly enhanced by the emerging evidence regarding the role of black carbon in global warming. Due to the clean combustion typically associated with gaseous fuels, LPG generates extremely low levels of black carbon, making it an ideal component of any global warming reduction strategy.

Moreover, its portability makes it an ideal auxiliary fuel for systems based on renewable energy such as solar thermal and photovoltaic, particularly in areas beyond the reach of the natural gas network. Finally, as Europe's leading alternative fuel (see the transport section of the website for details), LPG is helping to tackle the particularly persistent challenge of reducing CO₂ and black carbon emissions in the European road transport sector.

How have you influenced, or are you attempting to influence their position?

Repsol is member of the Liquid Gas Europe Steering Committee and Policy Coordination working group.

Trade association

International Emissions Trading Association (IETA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IETA encourages carbon pricing of many forms, but its primary focus is on emissions trading because of its environmental assurance and economic advantages. Its vision is a single global carbon price produced by markets of high environmental integrity. In Europe, IETA supports the EU emissions trading system (ETS) as the central policy instrument of the 2030 Climate and Energy package. IETA highlights the importance of efficient functioning of the market, with predictable rules, greater policy coordination and appropriate measures to address ETS impacts on trade-exposed sectors. One of its priorities is to form a vision on longer-term strategic issues, such as extending the scope of the ETS, investment incentives for low-carbon technologies and use of markets to meet the European Union's rising ambitions.

How have you influenced, or are you attempting to influence their position?

During 2019, Repsol has continued monitoring and gathering information from different Working Groups related to the expansion of EU ETS to new sectors, overlapping policies and carbon leakage.

Trade association

Canadian Association of Petroleum Producers (CAPP)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

CAPP's Climate Change Policy Principles Canada's oil and natural gas producers are ready and willing to do their part to contribute to the overall Canadian plan on climate change. Collaborative and solutions-oriented •Given Canada's climate commitments and industry impacts, CAPP will proactively collaborate with governments and stakeholders towards appropriate policy solutions. •Policy solutions need to be adaptive and carefully consider environmental, economic, and social outcomes. Efficient, effective & predictable •Climate policy should target reductions where they are most efficient and effective right across the entire energy value chain from production to end use and considering fairly all sectors and jurisdictions. •Climate change policies should achieve emissions reductions at the least cost to Canadians, the economy and industry. •Revenues from climate policy should be fully recycled back into the economy to incent innovation, assist transition or reduce other taxes and levies. Technology and innovation focused •Policy should incent technology and innovation to address climate change, and capture the opportunity to export solutions to the world. •Considerable future emissions reductions will stem from improving the hydrocarbon energy sector requiring continuing strong innovation and policy effort in these areas. Globally competitive •Canada's climate policies must ensure Canada's resource development is cost and carbon competitive with other jurisdictions, especially the U.S. as Canada's largest trading partner. •Canada's climate policy leadership should bring proportionate benefits to Canada, including ensuring the industry receives full value for Canadian energy products through effective access to global markets. •Canada is highly dependent on the development and trade of its natural resources, and on its ability to attract foreign investment. Canada's climate policies must be designed to maintain Canada's ability to raise global investment capital.

How have you influenced, or are you attempting to influence their position?

Repsol participated in the development of policy positions at CAPP. Repsol's employees are participating in various committees and working groups, several of which are responsible for developing positions on policies and influencing emerging legislations or changes to legislation and regulations related to climate change, carbon price, energy efficiency and methane emission reductions.

Trade association

Canadian Chamber of Commerce

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Canadian Chamber of Commerce supports evidence-based policymaking that appropriately accounts for environmental externalities as well as efforts by the government of Canada to cooperate with provinces and territories to address environmental issues that are of shared jurisdiction. The Chamber favors a price on carbon, supports the creation of a water strategy and believes in the imperative to foster technological innovation and ensure efficient regulatory processes.

How have you influenced, or are you attempting to influence their position?

Repsol participated in the Chamber's committee on natural resources and, which is in charge of the development of the Chamber's policy positions on climate change.

Trade association

IPIECA

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

IPIECA acts as a catalyst to bring experts together to work on issues such as greenhouse gas (GHG) emissions, energy efficiency and reducing the impact of fuel emissions. By doing this, they help the oil and gas industry manage its environmental impact and address climate risks while it works to meet the increasing demand for energy. IPIECA is helping the industry to be part of the climate change solution by developing industry guidelines on GHG reporting, a series of good practices on energy efficiency and greenhouse gas management, and an ongoing record of convening expert workshops to explore key climate-related issues, informing the industry and stakeholders. Additionally, IPIECA also has a long-standing engagement with United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC). Over the past two decades, IPIECA has acted as an official observer for both organizations, whilst also hosting events at UNFCCC COPs and providing technical input on IPCC reports.

How have you influenced, or are you attempting to influence their position?

Repsol participates, among others, in the Climate change Working Group, which works in the following issues: - Low-emissions pathways - International policy and the UN - Transparency and reporting - Emissions management - Methane emissions

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Since 2016, Repsol participated with its partners in the Oil&Gas sector in the OGCI Climate Investments (OCGI-CI), a vehicle for channeling \$1,000 million in investments over a 10-year period in start ups with a view to fighting climate change by reducing greenhouse gas emissions linked to the supply of energy. The main lines of work are as follows:

- Establish the road map towards a low-emission future: we are researching the areas where the Oil & Gas sector can work to achieve the objective of limiting the increase in global temperature to 2 °C.
- Manage methane emissions: we are collaborating in the research required to gain in-depth knowledge of methane emissions and detection technology to help both companies and governments to act with greater effectiveness.
- Carbon Capture, Utilization, and Storage (CCUS): the large-scale use of this technology will make us reduce costs, develop viable market mechanisms, and improve our understanding of geological storage capacity.
- Energy efficiency and energy efficiency in transport have started their activities recently. In those activity lines O&G industry can play a relevant role and influence due to its expertise and background over time.

In 2019, Repsol has invested \$6 million in this initiative. The investments made by OGCI in Climate Investments during this year are: **Kelvin**, a US firm that develops artificial intelligence-based control systems, making it possible to reduce the carbon footprint of industrial facilities; **Boston Metal**, a US firm that has developed technology to produce steel and other metals more efficiently and in a more environmentally sustainable manner; **XL Hybrids**, a US firm that produces electric hybridization systems that can be attached to internal combustion engines to reduce the CO2 emissions of commercial fleets; **75F**, a US firm that develops advanced heating, air conditioning and lighting automation systems for commercial buildings that offers important savings on the consumption of electricity; **Norsepower**, a Finnish firm that designs and manufactures mechanical rotors that generate additional wind propulsion on large vessels; **Kairos Aeronautics** has developed a technology for detecting methane emissions through aerial inspections; **SeekOps** offers local methane emission detection and quantification services, using drones and mobile detectors. A pilot project is due to be carried out at Repsol, which is currently in the visualization and conceptualization phase.

In 2016 Repsol joined the UN Environment's Climate & Clean Air Coalition – Oil & Gas Methane Partnership, to implement methane emission reduction projects in collaboration with other companies, institutions and governments. We seek to eliminate barriers and come up with technical and economically viable solutions. Repsol also joined the World Bank's Zero Routine Flaring by 2030 initiative, which allows us to collaborate with other companies and institutions to look for the most advanced technologies that minimize the routine gas flaring by 2030.

In May 2020, Repsol has assessed its participation in 28 initiatives and associations. The selection is based on the associations' or initiatives' relationship to the energy sector, their scope of action in regions or countries where we have significant business or commercial operations, and their relevance in relation to climate change. This assessment is designed as an exercise in transparency regarding the impact of our activities on climate change and comes in response to requests by investors and analysts.

V Energy for Europe Conference:

On the 3rd October 2019, Repsol organised the V Annual Repsol Conference in Brussels entitled "Energy for Europe – Shaping the future for EU Industry". The Conference attracted members of the European Institutions and stakeholders from industry and civil society.

Antonio Brufau, Chairman of Repsol, opened the conference. He stated "We all need to work together, with the EU leading the effort, towards competitive transformations that will promote social, economic and environmental sustainability". Keynote speakers and a single panel reflected about the energy transition and the industrial transformation challenge we are facing, discussing critical questions like the safeguard of industrial competitiveness, potential risks and opportunities for a transitioning European industry, and the possibilities to ensure the social equability of the transition.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

The Sustainability Division of Repsol has responsibilities for developing a corporate carbon strategy. At the same time, Repsol establishes internal working groups to follow policy and regulation that may affect the company and also to coordinate the engagement activities that are undertaken related to these policies regulations.

These groups create legislative records to summarize the status of every legislative proposal and regulation that could affect Repsol. The possible impacts and common position of the company are outlined in those documents, so that they can be used by all employees involved in the process. This is to ensure proper coordination of the regulatory activities of the company. The members of these groups are also participants in trade associations. They share the information they receive from the trade associations along with the association's position and activities with the rest of the members of the group. The members of these groups are also the experts on areas affected by a specific regulation as well as some members from the Sustainability Division if the regulation is related to climate change and from the European Affairs Division if it comes from the European Union.

The internal working groups arrange team meetings regularly, which guarantee proper coordination among team members and across the company.

CANADA:

The Institutional Relations Direction has accountability for engagements with policymakers in Canada and is committed to perform Repsol's engagement on the climate policy consistent with Repsol's corporate strategy and overall corporate position on carbon price and climate change. In coordination with the Canadian Business Unit, both teams collaborate to ensure alignment between federal and provincial work on these policies.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

Other, please specify (In mainstream reports in accordance with TCFD recommendations)

Status

Complete

Attach the document

2019_integrated_management_report_tcm14-175429.pdf

Page/Section reference

Section 6. Sustainability Section 6.1. Climate Change

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

Other, please specify (In mainstream reports (including an integrated report) but have not used the CDSB Framework)

Status

Complete

Attach the document

2019_consolidated_financial_statements_tcm14-175424.pdf

Page/Section reference

Page 75-76: 31 Environmental information/ 31.1 Environmental Expenses /31.2 Carbon emission allowances. Page 101-102: Appendix III - Regulatory Framework - Climate change and alternative fuels

Content elements

Risks & opportunities
Emissions figures
Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

2020_global_sustainability_plan_tcm14-174719.pdf

Page/Section reference

Pages 38-42

Content elements

Other, please specify (Climate Change Targets & Ambitions)

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

PR02122019_repsol_will_be_a_net_zero_emissions_company_by_2050_tcm14-170651.pdf

Page/Section reference

Repsol Net Zero Emissions ambition announcement: All pages of the document

Content elements

Other, please specify (Climate Change Targets & Ambitions)

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

assessing_repsol_participation_initiatives_associations_climate_change_tcm14-181638.pdf

Page/Section reference

Assessing our participation in industry associations and initiatives: All pages of the document

Content elements

Strategy

Other, please specify (Participation in industry initiatives and associations)

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

repsol-climate-roadmap_tcm14-155816.PDF

Page/Section reference

Repsol Climate Roadmap: All pages of the document

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document**Page/Section reference****Content elements**

Strategy

Emissions figures

Emission targets

Other, please specify (Climate Change commitment)

Comment

See attached links: <https://www.repsol.com/en/sustainability/climate-change/index.cshhtml> <https://www.repsol.com/en/sustainability/climate-change/our-commitment/index.cshhtml> <https://www.repsol.com/en/sustainability/climate-change/new-energy-solutions/index.cshhtml> <https://www.repsol.com/en/sustainability/climate-change/energy-efficiency/index.cshhtml> <https://www.repsol.com/en/sustainability/climate-change/carbon-pricing/index.cshhtml>

Publication

In voluntary communications

Status

Complete

Attach the document

equity-story-esg-nov_tcm13-149418.pdf

Page/Section reference

Equity Story: Pages 24-36

Content elements

Strategy

Other, please specify (Energy transition)

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

Page/Section reference

Local Sustainability Plans: Climate Change section of every document

Content elements

Other, please specify (Climate Change actions)

Comment

Repsol reports their actions in each asset with the sustainability plans made by each country. See attached link for the documents: <https://www.repsol.com/en/sustainability/reports-kpis-and-partnerships/sustainability-plans/countries/index.cshtml>

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	56180772597

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	ES	0173516115

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Michelin

Scope of emissions

Scope 3

Allocation level

Business unit (subsidiary company)

Allocation level detail

Emissions in metric tonnes of CO₂e

10262

Uncertainty (±%)

Major sources of emissions

Verified

No

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Carbon footprint calculation base is tons of sold product multiplied per annual tons purchased by the client

Requesting member

Stearinerie Dubois

Scope of emissions

Scope 3

Allocation level

Business unit (subsidiary company)

Allocation level detail

Emissions in metric tonnes of CO₂e

567

Uncertainty (±%)

Major sources of emissions

Verified

No

Allocation method

Allocation based on the number of units purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Carbon footprint calculation base is tons of sold product multiplied per annual tons purchased by the client

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Product carbon footprint is provided by client request.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

The development of the plan is underway during this year

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

0

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service

Redezon 586 Cire Ozone C28ST

Description of good/ service

ANTI-OZONE WAXES It's a blend of waxes specially designed to avoid the ozone attack to unsaturated rubber parts in static conditions, forming a thin layer in the surface

that acts as a barrier and prevents the rubber from cracking.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO₂e per unit

1122

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

REDEZON 500 Cire ozone 32 ST

Description of good/ service

ANTI-OZONE WAXES It's a blend of waxes specially designed to avoid the ozone attack to unsaturated rubber parts in static conditions, forming a thin layer in the surface that acts as a barrier and prevents the rubber from cracking.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO₂e per unit

1003

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

REDEZON PWM80 Cire 6266

Description of good/ service

ANTI-OZONE WAXES It's a blend of waxes specially designed to avoid the ozone attack to unsaturated rubber parts in static conditions, forming a thin layer in the surface that acts as a barrier and prevents the rubber from cracking.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO₂e per unit

982

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

REDEZON 200 P Paraffine 6470

Description of good/ service

ANTI-OZONE WAXES It's a blend of waxes specially designed to avoid the ozone attack to unsaturated rubber parts in static conditions, forming a thin layer in the surface that acts as a barrier and prevents the rubber from cracking.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO₂e per unit

751

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

Extensoil 1996 TDAE OER

Description of good/ service

EXTENDER OILS. The extender or process oils are generally added to the compounds during rubber processing to reduce their viscosity, to make easier their preparation and manufacture during the lamination and extrusion operations, as well as improving the fillers dispersion.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

534

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

EXTENSOIL1721 TDAE

Description of good/ service

EXTENDER OILS. The extender or process oils are generally added to the compounds during rubber processing to reduce their viscosity, to make easier their preparation and manufacture during the lamination and extrusion operations, as well as improving the fillers dispersion.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

537

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

EXTENSOIL 1471/ MES

Description of good/ service

EXTENDER OILS. The extender or process oils are generally added to the compounds during rubber processing to reduce their viscosity, to make easier their preparation and manufacture during the lamination and extrusion operations, as well as improving the fillers dispersion.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

537

±% change from previous figure supplied

0

Date of previous figure supplied

Explanation of change

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

Extensoil 51 OIL PA 1012

Description of good/ service

EXTENDER OILS. The extender or process oils are generally added to the compounds during rubber processing to reduce their viscosity, to make easier their preparation and manufacture during the lamination and extrusion operations, as well as improving the fillers dispersion.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

534

±% change from previous figure supplied

0

Date of previous figure supplied**Explanation of change**

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

EXTENSOIL 1471 MES HPD/OER

Description of good/ service

EXTENDER OILS. The extender or process oils are generally added to the compounds during rubber processing to reduce their viscosity, to make easier their preparation and manufacture during the lamination and extrusion operations, as well as improving the fillers dispersion.

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

534

±% change from previous figure supplied

0

Date of previous figure supplied**Explanation of change**

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

Name of good/ service

Parafina 295-D

Description of good/ service

Parafin wax

Type of product

Intermediate

SKU (Stock Keeping Unit)

1 metric ton

Total emissions in kg CO2e per unit

567

±% change from previous figure supplied

0

Date of previous figure supplied**Explanation of change**

First time calculation

Methods used to estimate lifecycle emissions

Other, please specify (ISO 14064 & ISO 14067)

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service
Redezon 586 Cire Ozone C28ST

Please select the scope
Scope 1, 2 & 3

Please select the lifecycle stage
Other, please specify (Cradle to Tank)

Emissions at the lifecycle stage in kg CO2e per unit
1122

Is this stage under your ownership or control?
No

Type of data used
Primary and secondary

Data quality
- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service
REDEZON 500 Cire ozone 32 ST

Please select the scope
Scope 1, 2 & 3

Please select the lifecycle stage
Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit
1003

Is this stage under your ownership or control?
No

Type of data used
Primary and secondary

Data quality
- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service
REDEZON PWM80 Cire 6266

Please select the scope
Scope 1, 2 & 3

Please select the lifecycle stage
Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit
982

Is this stage under your ownership or control?
No

Type of data used
Primary and secondary

Data quality
- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service
REDEZON 200 P Paraffine 6470

Please select the scope
Scope 1, 2 & 3

Please select the lifecycle stage
Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit
751

Is this stage under your ownership or control?
No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

Extensoil 1996 TDAE OER

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

534

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

EXTENSOIL1721 TDAE

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

537

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

EXTENSOIL 1471/ MES

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

537

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

Extensoil 51 OIL PA 1012

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

534

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

EXTENSOIL 1471 MES HPD/OER

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

534

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

Name of good/ service

Parafina 295-D

Please select the scope

Scope 1, 2 & 3

Please select the lifecycle stage

Other, please specify (Cradle to tank)

Emissions at the lifecycle stage in kg CO2e per unit

567

Is this stage under your ownership or control?

No

Type of data used

Primary and secondary

Data quality

- Activity data from processed goods and products based on material- balances - Carbon footprint from our goods based on our own calculations - Carbon footprint from our processes based on CO2 and energy balances - Purchased goods Emissions Factors from Ecoinvent data Base - Upstream & Downstream transportation distances based on Google maps and <https://sea-distances.org/> - Emission factor for transport from DEFRA

If you are verifying/assuring this product emission data, please tell us how

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
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SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

Please select

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms