# **Renault - Climate Change 2020**

## **C0. Introduction**

## **C0.1**

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

The Group’s activities have been organized into two main types of operating activities, in 134 countries:

1. Automotive, with the design, manufacture and distribution of products through its distribution network (including the Renault Retail Group subsidiary):

- New vehicles, with several ranges ( passenger cars, light commercial vehicles and electric vehicles ) marketed under five brands: Renault, Dacia, Renault Samsung Motors, Alpine and Lada. Vehicles manufactured by Dacia and RSM may be sold under the Renault badge in some countries,

- Used vehicles and spare parts,

- The Renault powertrain range, sold business-to-business;

2. Miscellaneous services: sales financing, leasing, maintenance and service contracts.

In addition, Renault has equity investments in the following two companies:

- Renault’s equity investment in Nissan;

- Renault’s equity investment in AVTOVAZ

The investment in Nissan is consolidated under the equity method in the Group’s financial statements, that in AVTOVAZ is fully consolidated.

All reported data and informations cover exclusively Groupe Renault's activities and impact. Data from Nissan and Avtovaz are not included.

## **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.**

Argentina

Brazil

Chile

Colombia

France

Morocco

Portugal

Republic of Korea

Romania

Russian Federation

Slovenia

Spain

Turkey

## **C0.4**

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

EUR

## **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.**

Financial control

## **C-TO0.7/C-TS0.7**

### **(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?**

Light Duty Vehicles (LDV)

## **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** |
| Board-level committee | (i) The Group’s Board of Directors has reinforced its governance of environmental issues by setting up the specialized Ethics and CSR Committee. The Ethics and CSR Committee is tasked by the Board with, notably (i.e. pertaining to climate related issues): - ensuring that the Company and Group have a high level of commitment in terms of extra-financial compliance, ethics and social and environmental responsibility; - receiving, every year, the presentation of the risk-mapping of the Group relating to ethics, social responsibility and sustainable development; it reviews the risks and opportunities identified and is kept informed of their evolution. - working to ensure that the Group takes into account extra-financial issues and long-term outlooks; - reviewing and assessing procedures for reporting and controlling non-financial indicators (environmental, health and safety indicators and workforce-related reporting); The Ethics and CSR Committee coordinates its work with the other committees in the areas that concern them, in particular the CARC (in particular in matters relating to internal control, compliance, risk analysis and non-financial information) and the Strategy Committee (in particular in matters relating to ethics policy, corporate social responsibility and sustainable development). |
| Chief Executive Officer (CEO) | (i)To secure Renault convergence toward CO2 emissions targets, and in addition to existing organization, Renault has implemented in 2018 a specific Program team (named CAFE Control Tower), with the task of ensuring convergence with the next regulatory stages in terms of vehicle CO2 emissions (monitoring of results and managing the 2020 and 2021 roadmap). For this, a tool for forecasting CO2 levels for Group registered vehicles in Europe was rolled out in 2019. The CAFE control tower reports each month to the Operations Review Committee, which is chaired by the Chief Executive Officer. (iii)The Chief Executive Officer relies on the Group Executive Committee (GEC) to steer the Group’s strategic management. The Group Executive Committee takes strategic, financial and operational decisions within the limits of the corporate purpose and subject to the powers expressly granted by law to Board of Directors’ meetings. These decisions are reflected in the budget, product plan, major investments, and strategic plans for sites. The members of the Group Executive Committee may attend Board meetings. The GEC meets once a month. Example of climate-related topic reviewed in GEC: the agreement signed in 2015 following the Paris Climate Conference (COP 21) and the national commitments published at the time were subjected to an in-depth analysis of their implications for the automotive industry as soon as they were announced. The associated opportunities and risks were presented to the Executive Committee for inclusion in the Group strategy and product plan. |

## **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 – some meetings | Reviewing and guiding strategy  Reviewing and guiding major plans of action  Reviewing and guiding risk management policies  Reviewing and guiding annual budgets  Reviewing and guiding business plans  Setting performance objectives  Monitoring implementation and performance of objectives  Overseeing major capital expenditures, acquisitions and divestitures  Monitoring and overseeing progress against goals and targets for addressing climate-related issues  Other, please specify (CO2 life cycle assessment) | <Not Applicable> | The Group’s Board of Directors has reinforced its governance of environmental issues by setting up the specialized Ethics and CSR Committee. The Ethics and CSR Committee is tasked by the Board with, notably (i.e. pertaining to climate related issues): - ensuring that the Company and Group have a high level of commitment in terms of extra-financial compliance, ethics and social and environmental responsibility; - receiving, every year, the presentation of the risk-mapping of the Group relating to ethics, social responsibility and sustainable development; it shall review the risks and opportunities identified and shall be kept informed of their evolution. - working to ensure that the Group takes into account extra-financial issues and long-term outlooks; - reviewing and assessing procedures for reporting and controlling non-financial indicators (environmental, health and safety indicators and workforce-related reporting); The Ethics and CSR Committee coordinates its work with the other committees in the areas that concern them, in particular the CARC (in particular in matters relating to internal control, compliance, risk analysis and non-financial information) and the Strategy Committee (in particular in matters relating to ethics policy, corporate social responsibility and sustainable development). (ii) Examples of topics reviewed by board committees during during the past 2 years: - electrification strategy and its implications for the Group, - impact of new WLTP (Worldwide harmonized Light Vehicle Test Procedure) regulations in Europe, - review of materiality matrix wich includes carbon footprint (life cycle) of vehicles (matrix updated in 2019) |
| Scheduled – all meetings | Reviewing and guiding strategy  Reviewing and guiding major plans of action  Reviewing and guiding risk management policies  Reviewing and guiding annual budgets  Reviewing and guiding business plans  Setting performance objectives  Monitoring implementation and performance of objectives  Overseeing major capital expenditures, acquisitions and divestitures  Monitoring and overseeing progress against goals and targets for addressing climate-related issues | <Not Applicable> | To secure Renault convergence toward CO2 targets, and in addition to existing organization, Renault has implemented in 2018 a specific Program team (named CAFE Control Tower), with the task of ensuring convergence with the next regulatory stages in terms of vehicle CO2 emissions (monitoring of results and managing the 2020 and 2021 road map). For this, a tool for forecasting CO2 levels for Group registered vehicles in Europe was rolled out in 2019. The CAFE control tower reports monthly to the Operations Review Committee. The Group’s Operations Review Committee is chaired by the Chief Executive Officer and is in charge of operational decisions and reviewing performance at the regional, functional and Business Unit level: - business KPIs; - profitability, programs and planning; - various reports: electric vehicles, light commercial vehicles, costs, quality, etc. |

## **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 Executive Officer (CEO) | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than quarterly |
| Corporate responsibility committee | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than quarterly |
| Sustainability committee | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than quarterly |

## **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).**

(1) Groupe Renault’s Board of Directors has an Ethics and CSR Committee. Regarding social and environmental responsibility its duty is to:

a. ensure that the Company and Group are sufficiently committed in terms of ethics, extra-financial compliance and environmental, social and societal responsibility,

b. examine the Group’s policies, reference texts and charters on these matters, including the Group’s code of ethics, and ensure their effectiveness,

c. review and assess procedures for reporting and controlling non-financial indicators (environmental, health and safety indicators and workforce-related reporting),

d. receive, every year, the presentation of the risk-mapping of the Group relating to social responsibility and sustainable development; it shall review the risks and opportunities identified and shall be kept informed of their evolution and the characteristics of the related management systems,

e. review reporting, assessment and control systems to ensure that the Company is able to provide reliable non-financial information and, in particular, issue an opinion on the declaration of extra-financial performance that must be published in accordance with applicable law,

f. work to ensure that the Group takes into account extra-financial issues and long-term outlooks,

g. promote ethics, ensure that ethical rules are harmonized within Group entities and monitor their application,

h. examine Human Resources policies;

i.and receive, every year, the presentation of the risk-mapping of the Group relating to ethics and compliance; it shall review the risks and opportunities identified and shall be kept informed of their evolution and the characteristics of related management systems.

Climate-related issues are specialy integrated in previous listed roles on points c, d and e. For example, Climate-related issue is integrated as the higher risk of the materiality matrix of Groupe Renault by "Vehicle carbon footprint (full life cycle)".

(2) To secure Renault convergence toward upcoming CO2 new regulation steps, and in addition to existing organization, the Group also created in 2018 a specific Program team, "CAFE control tower", with the task of ensuring convergence with the next regulatory stages in terms of vehicle CO2 emissions (monitoring of results and managing roadmaps). This cross-functional team involves all concerned divisions, including: engineering, manufacturing, sales & marketing, environment. The CAFE control tower reports monthly to the Operations Review Committee, which is chaired by the Chief Executive Officer.

(3)The CSR departments report to the Chairman and Chief Executive Officer or a member of the Group Executive Committee (GEC) and are coordinated by three operating entities that design and implement policies and associated objectives, identify and manage risks and opportunities, enter into dialog with stakeholders and lastly handle reporting and communication:

- the Corporate Social Responsibility department is responsible for an interdisciplinary and partnership approach to CSR throughout the value chain, societal actions and innovations;

- the Human Resources department is responsible for optimizing allocated resources, skills development, employee involvement and social dialog;

- the Strategy and Environmental Planning department is responsible for environmental issues to be included in the Company’s strategy. It aims to reduce the environmental footprint of activities, products and services over the life-cycle and introduce circular economy business models to boost the Company’s medium- and longterm competitiveness. Individually or jointly, these three operational departments bring issues relating to strategic orientation before the decision-making bodies at CEO or Group Executive Committee member level. These departments then roll them out within the Company through the programs, Regions and functions, using internal networks and by developing external partnerships if necessary. The Human Resources (HR), Environment and CSR functions also contribute to corporate programs to manage ethics. They are among the 10 business-lines represented on the Ethics and Compliance Committee, coordinated by the Ethics department. They also take part in the Appointments and Governance Committee (described on point (1)), one of the specialized committees of the Board of Directors. The three departments analyze and map the major risks identified by the Risk Management departmenon CSR practices in the supply chain, health and working conditions, substance risk... Following its materiality analysis, since April 2016, the CSR department has organized a Positive Impact Committee (PIC) with 20 members, which meets four times a year and represents the main departments and functions of the Group, to promote a common vision and action plans. It coordinates the management of the various departments’ extra-financial issues and helps to identify new opportunities.

## **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 inventivized** | **Comment** |
| Chief Executive Officer (CEO) | Monetary reward | Emissions reduction target | The compensation policy for the Chief Executive Officer includes the following criteria. (i) Long-term performance criterion: Total carbon footprint (worldwide). The number of shares fully vested by the Chief Executive Officer out of the performance shares allocated to him will depend on the achievement of 4 performance criteria, one of which is the Total carbon footprint. This criterion corresponds to the target of reducing the average carbon footprint of passenger cars and light commercial vehicles registered worldwide. It covers greenhouse gases emitted as a result of the energy consumed by the Company to produce vehicles, as well as most other indirect emissions related to their design, manufacture, marketing, use and end-of-life treatment. Weighting, as a percentage of allocation: 20%. Payout rate: - 0% if the average carbon footprint emissions is strictly higher than the target, - 14% if the average carbon footprint emissions is equal to the target, - 20% if the average carbon footprint emissions is equal to or the Group target -2.5 points, - Linear interpolation if average carbon footprint is between the Group target -2.5 points and the Group target. (ii) Fleet CO2 emissions : average emissions of passsengers cars (CAFE regulation). For the annual variable compensation, the performance criteria set by the Board of Directors include four quantifiable criteria and three qualitative criteria. The Board of Directors has deemed these to be key indicators of Groupe Renault’s performance. One of the four quantitative criteria is the CO2 emissions of passengers cars registered in Europe, based on CAFE regulation. Weighting, as a percentage of fixed compensation: 20% if on target and maximum. Payout rate: - 0% if the level of CO2 emissions is strictly above the regulatory target, - 20% if the level of CO2 emissions is equal to or lower than the regulatory target. |

## **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 | 1 | 2 |  |
| Medium-term | 2 | 6 | In line with strategic midterm Plan "Drive the Future" |
| Long-term | 6 | 15 |  |

## **C2.1b**

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

The Group identifies risks that could have a significant adverse effect on its image, assets, the conduct of its business, performance or the achievement of its objectives. In the process of identifying and mapping risks throughout the company, whether at local or at group level, each individual risk is assessed along the three following dimensions, on a rating scale from 1 to 4 :

- level of Impact (weak, important, major, disaster)

- Probability (from very unlikely to very likely)

- Level of Control (optimum, advanced, partial, poor)

A fourth dimension is added : the criticality of a risk, as a combination of its level of impact and its probability. The rating scale is in relative terms, as the assessment of a risk is always relative to the perimeter and to the objectives of the entity concerned. Also when rating the impact of a risk, we consider several types of impact, including: strategic (how it might affect strategic goals), financial, human, reputation, legal, environment, stakeholders.

For the purpose of this questionnaire, risks with a substantive financial or strategic impact on our business will be risks that have a high rating (ie above average) for the impact at Group level, regardless of their probability or level of control.

## **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**

ASSESSMENT - At company level: The identification and control of environmental risks are included in the Group’s overall risk management system. Like all CSR issues, environmental issues have also undergone a materiality analysis. This identifies and prioritizes them based on their potential impact on the economic performance of the business and their relative importance for its stakeholders. Process used: The Group identified its CSR and climate-related risks when updating its materiality matrix. in 2019 Groupe Renault updated its materiality analysis with the support of consultants. The aim of this analysis is to generate a materiality matrix depicting the importance of each stake identified from the point of view of stakeholder expectations and, its contribution to the performance of the business in terms of value creation. Headed by the CSR department, an crossfunctional steering committee supervised the methodological approach and the key stages of the project. The stakes identified from international standards, an industry benchmark and a literature review, were positioned in the matrix following discussions with Groupe Renault senior executives and representatives of the Group’s stakeholders (employees, customers, investors, suppliers, NGOs, media, environmental and future generations’ representatives, and CSR experts). The matrix has been validated by the Group Executive Committee and by the Chairman of the board of directors. All these stakes are important for the Company and its relationship with its ecosystem, but the real value of this materiality exercise is to provide prioritized and appropriately weighted answers according to the importance of the stakes mapped. - Assessment at asset level: At assets level the Renault group is mainly (though not highly) exposed to weather-related risks, which can sometimes turn into opportunities (ex: solar panels for hail protection). The exposure of every industrial asset to those risks is evaluated yearly by insurers in the frame of risks prevention audits carried out on behalf of Manufacturing and Insurances Divisions. The Group’s Prevention and Protection, Manufacturing and Real Estate Divisions define and oversee the implementation of action plans. - Definition of level of impact of risks: Groupe Renault evaluates its substantive impact of climate related risks on 2 vectors (materiality matrix): - Influence on stakeholders’ opinions or behaviors (moderate, strong, very strong) - Impact on sustainable business performance (moderate, high, very high) MANAGEMENT At company level Renault applies a three-pronged approach to risk and opportunities management: 1. Level 1 - At Group level, the Risk Management Division provides methods and an overall view (mapping) of major risks (materiality analysis for example). 2. Level 2 - The Group’s Prevention and Protection Division is responsible for identifying and handling risks and opportunities linked to the protection of assets; 3. Level 3 - In all entities involved in business-critical processes, experts are appointed to identify and prioritize risk control solutions and related opportunities, and oversee their implementation. They directly contribute to the level 1 risk mapping process. The following climate change risks & opportunities have been identified within the Renault Group which can have an impact on the Company’s financial results: (A) physical risks (exposure of sites to extreme weather events with potential negative consequences on industrial and logistical activities, supply and insurance premiums), (B) risks related to the transition to a low-carbon economy (mismatch between offer of products/services and market expectations, loss of product competitiveness, increase in production costs), (C) impact of the evolution of regulatory and normative requirements related to environmental performance of vehicles and/or industrial processes and, more broadly, greenhouse gas reduction targets defined in the context of the COP 21 agreement and applied to the automotive sector. All risks and opportunities are assessed at levels 1, 2 and 3 as described above and managed at levels 1, 2 and 3 as described below: - (B) and (C) are dealt with by Strategic Environmental Planning Div., with the support of Public Affairs, Vehicle Regulation & Homologation and Manufacturing Divisions. Those risks are reported yearly to the GEC (Group Executive Committee), which validates the related management strategy and the means required for its implementation. For example, the transitional risk and opportunities associated with the tightening of regulations on GHG emissions, and in particular vehicle CO2 emissions, are identified as a major competitive challenge for the Company. For this reason, they are monitored through a Worldwide Carbon Footprint key performance indicator and specific product competitiveness targets are set in terms of fuel consumption and CO2 emissions (positioning of CAFE in particular). These indicators are reviewed annually by the Group’s Executive Committee, with a view to alignment over the short, medium and long-terms. In the short term, meeting regulatory targets for CO2 emissions from vehicles in Europe is a priority objective for the Group. A dedicated Program team "CAFE control tower" was thus created in 2018 with the task of ensuring convergence with the next regulatory stages in terms of vehicle CO2 emissions (monitoring of results and managing 2020-2021 roadmap). This CAFE control tower reports monthly to the Operations Review Committee, which is chaired by the Chief Executive Officer. (A) physical risks: the Renault group is mainly (though not highly) exposed to weather-related risks, which can sometimes turn into opportunities (ex: solar panels for hail protection). The exposure of every industrial asset to those risks is evaluated yearly by insurers in the frame of risks prevention audits carried out on behalf of Manufacturing and Insurances Divisions. The Group’s Prevention and Protection, Manufacturing and Real Estate Divisions define and oversee the implementation of action plans. For example, relating to physical risks at assets level, the Group has been working for several years to increase its resilience capacity in the face of natural disasters through regular updates of risk and stakes assessments, protection programs for people and property, monitoring and crisis management systems and business continuity plans. For example, a specific plan is being rolled out to optimize the treatment plans management for risks of earthquakes (Chile, Turkey, Romania, Colombia, Slovenia, Morocco, etc.). This program is based on actions to strengthen buildings and facilities, training of staff on the steps to be taken in the event of an earthquake, the establishment of specific means of communication, the organization of crisis management systems, research and preparation of solutions to ensure business continuity and a customized insurance program.

## **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 | (i) relevance Regulations are in constant evolution and are getting more stringent. Their scope is also becoming broader. Climate-related issues are a significant driver of this trend. Non compliance can entail fines or other forms of penalties, representing a financial risk for the company. Therefore, Groupe Renault considers these risks as relevant in its global risk assessment. (ii) example of risk Over half of the Group’s direct GHG emissions are concerned by the EU-ETS quota exchange system. Within its industrial scope, 13 Group sites are subject to the EU Emissions Trading Scheme (EU-ETS). |
| Emerging regulation | Relevant, always included | (i) relevance Over the past decade, regulations on CO2 emissions and fuel economy have become more and more stringent, worldwide. This trend has been reinforced in the wake of the agreement signed in 2015 following the Paris Climate Conference (COP 21), and is expected to continue in the future, consistent with the increasing societal concern about the urgency to combat climate change. For example, the "European Green Deal" published in 2019 aims to make Europe the first area to commit key sectors of activity (such as mobility) to a path compatible with the objective of limiting global warming to 1.5°C, by making Europe climate-neutral in 2050, implying stricter targets in terms of CO2 emissions. Car manufacturers must comply with CO2 emissions and/or fuel consumption targets. Non compliance can result in fines or other forms of penalties, that can represent a significant financial risk. About 70% of Groupe Renault sales are currently subject of a CAFE-type regulation. Therefore, Groupe Renault considers these risks as relevant in its global risk assessment. (ii) example of risk The risk, in the event of non-compliance with the European objective of a CAFE(1) per manufacturer of 95g of CO2/km in 2020, would be a financial penalty of €95 per gram and per vehicle, i.e. an overall amount of about €150 million per gram of overrun (based on current sale volumes). |
| Technology | Relevant, always included | (i) relevance In the continuously changing environment of the automotive markets, regulations, customer expectations and technologies, the Group is exposed to a risk of an inadequate match between its product and services offering and the expectations of different markets, that could adversely impact its sales, revenues or income statement. Therefore, this risk is considered relevant. (ii) example Specific risks have been identified relating to: - the enhancement of the technological content of vehicles and related ecosystems, especially with regard to vehicle connectivity and related services and the development of autonomous vehicles; - continual increases in the cost of vehicles resulting from more stringent regulations, the accounting of which through corrective changes in sale prices could prove excessively difficult, thus weakening the economic balance and the future of certain products; - the specific and strong ambition of the Group with respect to electric vehicles, in the context of intense, complex and uncertainly scheduled industrial and market dynamics, in particular conditioned by regional regulations (CAFE for example, in Europe), and potentially skewed by aid policies; - the current transition of the powertrain offer, in terms of technologies (gasoline, diesel, electrical hybridization of combustion engines, electrical) and mix. In particular, the choice of hybridization technology, which is particularly sensitive to costs and offers differentiated customer and CO2 performances, could turn out to be imperfectly adapted or paced, depending on the products and markets, thus potentially going against the overall technological and economic optimization defined by the Group for its CAFE trajectory. |
| Legal | Relevant, always included | (i) relevance Because of the growing and changing complexity of its international business, Renault is subject to more and more numerous, complex and dynamic laws and regulations, in particular in the areas of automobile, environment (including climate), competition, labor law and new technologies. (ii) Example The Group could find itself exposed to a change in laws or regulations that it inadequately anticipated or incorrectly took into account. Moreover, the authorities or courts may also change the application or interpretation of existing laws and regulations at any time. These differences in anticipation or failure to account for such changes in laws or regulations could result, for the Group and its senior executives, in possible criminal, administrative or financial penalties, that could also lead, for the Group, to a change in its capacity to carry out its operating activities, its revenues, its profits or its image. Concerning such legal and regulatory changes, Renault requires its subsidiaries to comply with the regulations of the countries in which the company conducts its business and takes part in ongoing discussions with the national or regional authorities in charge of the specific regulation of the products in the automotive sector, in order to anticipate changes and guarantee compliance of the Group with laws and regulations. The Group also continuously strengthens its structured approach to analyze and ensure the robustness of its regulatory compliance in a sustainable and anticipative manner, over a scope of regulated domains, including in particular: “competition”, “fight against fraud and corruption”, “environment”, “occupational health, safety, work environment”, “technical regulations”, etc. This approach is managed by the Ethics and Compliance Dpt, under the supervision of the Ethics and Compliance Committee (CEC), and is based on three types of agents: - the departments that set specifications (Technical Regulations Dpt, Legal Dpt, HSEE Dpt, etc.), provide regulatory oversight in their respective fields, transpose regulatory criteria into internal standards and deploy them within their networks; the operational entities ensure regulatory compliance via their processes, based on directives and with the support of the relevant functional departments, in accordance with local regulations; - the Ethics and Compliance Dpt defines the methods and evaluates the regulatory compliance systems, with the support of the Legal Dpt. |
| Market | Relevant, always included | (i) relevance In the continuously changing environment of the automotive markets, regulations, customer expectations and technologies, the Group is exposed to a risk of an inadequate match between its product and services offering and the expectations of different markets, that could adversely impact its sales, revenues or income statement. Therefore, Groupe Renault considers this risk relevant. (ii) example of risk type Local policies edicted by cities or larger territories aim at forbiddding or reducing the use of certain type of vehicles through fiscality, such as the urban toll system in London, or ban for certains categories of vehicles, depending on their their homologated emissions, such as Paris. In this context, the Group is drawing up prospective scenarios in order to ensure that its products and services fulfill market expectations, based on: - the collection of data on public policy by a global network of correspondents, including regulations, tax and road rules; - external partnerships (e.g. specialist bodies, NGOs) to anticipate changes in stakeholder expectations (including customers, users and territories); - carrying out studies to map local and national initiatives, and to analyze the potential impacts on the automotive market and the mobility market as a whole. The definition of the Group’s future products is based on customer studies and analyses of automotive competitors, so that market expectations and developments and industry trends can be identified. It is also informed, by anticipatory technology watch by all of the Group’s development stakeholders, of the automotive industry and beyond. To ensure the robustness of the product plan and keep risks under control, the Group: - maximizes the distribution of the same model in different markets, which reduces its exposure to possible fluctuations in one of these markets; - offers a varied, balanced Product portfolio that meets customer expectations in different segments and markets, so as to reduce the risk of dependency on a single market, segment or customer type; - offers a diversified and adaptable engine portfolio (gasoline, diesel, electric, etc.) to meet customer expectations in different markets and enable potential changes in the engine mix to be supported; - develops, with its Alliance partners, a limited number of standardized technical platforms to maximize economies of scale for component volumes and costs and facilitate their reuse from one region to another. |
| Reputation | Relevant, always included | (i) relevance In 2019, updated its materiality analysis to identify and prioritize the social, environmental and societal issues it faces. This matrix defines the relative importance of each stake over the next five years from the point of view of Groupe Renault's stekholder expecations (including customers, investors, NGOs, employees, etc.) and its contribution to the performance of the business in terms of value creation. The two highest rated stakes according to the stakeholders are the reduction of total carbon footprint and the reduction of the impacts of vehicle use on air quality. Stakeholders expect Groupe Renault to continue its efforts to reduce greenhouse gas emissions and air pollution due to road transport. They also assessed the impact of these two issues on Groupe Renault’s long-term sales performance as critical, notably due to tightened regulations and the decrease in the societal acceptability of vehicle emissions. Thus, this risk is considered relevant for the company. (ii) example of risk type The identification of significant differences between emissions measured in real use and in the laboratory or approval led the European Commission to define a real-use test protocol, introduced with the Euro 6d standard (RDE, Real Driving Emissions protocol). Without waiting for these new standards, Groupe Renault had, starting in July 2015, studied the implementation of improvements on all of its Euro 6b and Euro 6c diesel production aiming to further limit emissions in customer use. These improvements were gradually rolled out from August 2016. |
| Acute physical | Relevant, sometimes included | (i) relevance Certain extreme climatic events may disturb or even, in the most serious cases, temporarily stop operations at some of the Group’s production and logistics facilities. These risks can lead to a higher cost of insurance. Therefore, Groupe Renault considers this risk as relevant in its global risk assessment. The main climatic risks likely to impact Renault sites are flooding (for example, the French plants of Choisy-le-Roi and Flins, located close to the Seine River), typhoons (for example, the Busan plant in South Korea) and hail storms (in particular the plants in Santa Isabel at Cordoba in Argentina, Valladolid in Spain, Flins in France, Revoz in Slovenia, and Pitesti in Romania). (ii) example of risk For example, in 2018 hail impacted vehicles on a Groupe Renault plant car park, located in Spain. |
| Chronic physical | Not relevant, explanation provided | (i) relevance Due mainly to the location of our sites and manufacturing plants the group has not identified risks of chronic physical climate-related risk. Therefore, this risk is considered not relevant. |

## **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**

|  |  |
| --- | --- |
| Emerging regulation | Carbon pricing mechanisms |

### **Primary potential financial impact**

Increased indirect (operating) costs

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

Regulations pertaining to vehicle CO2 emissions and fuel consumption have been tightened worldwide over the past decade. This trend is expected to continue: for example, the "European Green Deal" published in 2019 aims to make Europe the first area to commit key sectors of activity (such as mobility) to a path compatible with the objective of limiting global warming to 1.5°C, by making Europe climate-neutral in 2050. In the short term, meeting the regulatory targets for reducing CO2 emissions from vehicles in Europe in 2020 and 2021 is a financial and reputational issue and therefore a priority objective for the Group. Outside Europe, the Group is also subject to similar regulatory constraints. In total, around 70% of the Group’s sales worldwide are thus subject to CAFE-type regulations, with associated fines (or other types of penalties) that carmakers would have to pay in case of noncompliance with CO2 emissions targets.

### **Time horizon**

Medium-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)**

3300000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

The risk, in the event of non-compliance with the European objective of a CAFE per manufacturer of 95g of CO2/km in 2020, would be a financial penalty of €95 per gram and per vehicle, i.e. an overall amount of about €150 million per gram of overrun (based on current sale volumes). The financial penalty of €95 per gram and per vehicle in case of noncompliance with the European objective of a CAFE (Corporate Average Fuel Economy) per manufacturer of 95 g CO2/km in 2020-2021 would represent for Groupe Renault an hypothetical overall amount of about 3.3 billions euros if calculated on 2019 data: the average CO2 emissions for light duty vehicle in 2018 in Europe for Renault is 118 g CO2/km so it would result in a gap of 118-95=23 g, multiplied by the number of passenger cars sold in Europe (around 1,500,000) = 23 X 1500000 X 95 = 3.3 billions euros if the regulation was applied in 2019.

### **Cost of response to risk**

3000000

### **Description of response and explanation of cost calculation**

Meeting the regulatory targets for reducing CO2 emissions from vehicles in Europe in 2020 and 2021 in order to avoir such penalties is a priority objective for the Group. (i) Levers: To meet this CAFE objective, the Group has the following levers at its disposal: - a pioneer position in electric vehicles: the Group can build on 10 years’ experience in design, manufacture, sale and after sales, with 30,000 employees trained in the specific features of electric vehicles. Renault is leader in electric mobility in Europe with over 250,000 100% electric vehicles already on the roads. The Group has the most comprehensive range on the market with ZOE, Kangoo Z.E., Master Z.E., and, from 2020, Twingo Z.E., sold in numerous countries in Europe and elsewhere; - an offer of hybrid and plug-in hybrid technologies, with E-TECH on Clio and E-TECH PLUG-IN on Megane and Captur. - a range of internal combustion engines equipped with the most recent emission reduction technologies technologies. - additional solutions based on alternative energies: an LPG (Liquified Petroleum Gas) offering for the Dacia range, or hydrogen fuel cells on the Kangoo Z.E. Hydrogen and Master Z.E. Hydrogen light commercial vehicles (in 2020). (ii) Management: To secure Renault convergence toward CO2 targets, and in addition to the existing organization, Renault has implemented in 2018 a specific Program team (named CAFE Control Tower), with the task of ensuring convergence with the next regulatory stages in terms of vehicle CO2 emissions (monitoring of results and managing the 2020 and 2021 road map). For this, a tool for forecasting CO2 levels for Group registered vehicles in Europe was rolled out in 2019. The CAFE control tower reports monthly to the Operations Review Committee, which is chaired by the Chief Executive Officer. This cross-functional team involves all concerned divisions, including: engineering, manufacturing, sales & marketing, environment. (iii) Cost of management: this control tower comprises a team of about twenty people representing all relevant sectors of the company, with the best experts in each field, who use their network and their skills in a constant and coordinated effort to achieve compliance. This cost is estimated to around 3 Millions €. It does not include R&D and Manufacturing expenses devoted to the development and implementation of the technologies needed to meet CAFE requirements in Europe and in the rest of the world (see the comment below).

### **Comment**

The cost of response to risk does not include R&D and Manufacturing expenses devoted to the development and implementation of the technologies needed to meet CAFE requirements in Europe and similar requirements in the rest of the world. In 2019 Groupe Renault spent €3.176 billion on research and development. The majority of R&D expenses are allocated to the development of new vehicles, a process in which improving environmental performance (especially in terms of CO2 emissions reduction) is integrated and inseparable from the standard product renewal process. Many areas of R&D contribute to the reduction of CO2 emissions, such as the electrification of powertrains (hybrids, plug-in hybrids, battery electric vehicles), lighweighting, aerodynamics, use of alternative fuels, the reduction in use of virgin materials through the use of recycled materials, etc.

### **Identifier**

Risk 2

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

|  |  |
| --- | --- |
| Current regulation | Carbon pricing mechanisms |

### **Primary potential financial impact**

Increased indirect (operating) costs

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

The financial challenges associated with the European Union Emissions Trading System (EU-ETS), to which 13 Group sites are subject, are managed by a special steering committee. Against a background of the gradual elimination by the European Commission of the free allocation of EU-ETS quotas, the strategy implemented by Groupe Renault aims to minimize the financial costs that these quotas will cause for the Company in the medium and long term, through efforts to reduce the energy consumption of the sites and rigorous forward-looking management, throughout the period 2013-2020, of CO2 emissions and allocations of annual quotas and quotas put in reserve by the Group during the years when it had a surplus. In a context of an increase and volatility in the price of the EU-ETS quotas observed in 2019 and the upward trend expected in the coming years, the Group has decided to go to the market (rather than use its quota reserves or surpluses from certain of its sites) to offset the quota deficits at the European sites with negative balances for 201, for a total cost of around €3 million. The Group plans to maintain the negative impact of CO2 quotas (Europe and Korea) in the Company’s financial statements at a similar level for the end of the 2013-2020 period, while retaining a quota reserve, with the aim of mitigating the expected upward trend in this financial expense over the 2021-2030 period.

### **Time horizon**

Medium-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium-low

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

3000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

The figure provided is the actual cost paid by the company to purchase EU-ETS quotas in 2019. In a context of an increase and volatility in the price of the EU-ETS quotas observed in 2019 and the upward trend expected in the coming years, the Group has decided to go to the market (rather than use its quota reserves or surpluses from certain of its sites) to offset the quota deficits at the European sites with negative balances for 201, for a total cost of around €3 million. The Group plans to maintain the negative impact of CO2 quotas (Europe and Korea) in the Company’s financial statements at a similar level for the end of the 2013-2020 period, while retaining a quota reserve, with the aim of mitigating the expected upward trend in this financial expense over the 2021-2030 period.

### **Cost of response to risk**

300000

### **Description of response and explanation of cost calculation**

The financial challenges associated with the European Union Emissions Trading System (EU-ETS), to which 13 Group sites are subject, are managed by a special Steering Committee. Against a background of the gradual elimination by the European Commission of the free allocation of EU-ETS quotas, the strategy implemented by Groupe Renault aims to minimize the financial costs that these quotas will cause for the Company in the medium and long term, through efforts to reduce the energy consumption of the sites (see the “C.4.3” section) and rigorous management forward-looking management, throughout the period 2013-2020, of CO2 emissions and allocations of annual quotas and quotas put in reserve by the Group during the years when it had a surplus. A dedicated team has been created at Corporate level to manage the reduction of energy consumption and CO2 emissions on industrial facilities, which represents operating expenses around € 300K/year, not considering the network of employees partly dedicated to this task at sites level. Example: Besides the hundreds of cost-free energy saving actions implemented each year on industrial sites, € 30 milions of investments dedicated to energy efficiency and CO2 emissions reduction are currently at the planning stage or understudy.

### **Comment**

### **Identifier**

Risk 3

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

|  |  |
| --- | --- |
| Acute physical | Increased severity and frequency of extreme weather events such as cyclones and floods |

### **Primary potential financial impact**

Decreased revenues due to reduced production capacity

### **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

### **Company-specific description**

Certain extreme climatic events may disturb or even, in the most serious cases, temporarily stop operations at some of the Group’s production and logistics facilities. The main climatic risks likely to impact Renault sites are flooding (French plants of Choisy-le-Roi and Flins, located close to the Seine River), typhoons (Busan plant in South Korea) and hail storms (the plants in Santa Isabel at Cordoba in Argentina, Valladolid in Spain, Flins in France, Revoz in Slovenia, and Dacia in Romania). The hail risk has, by far, the highest recurring financial impact due to the damage caused to new vehicles when they are stored in unprotected zones. In order to reduce the risk of damage caused by hail, between 2010 and 2013, Groupe Renault implemented a widespread plan to cover vehicle storage zones. This work was partly financed by Renault and partly by investors as part of a project to install photovoltaic panels. As a result of this plan, the majority of the Group’s storage areas for new vehicles are now protected. No other natural risks linked to climate change have so far led to any notable disruptions to activities or material damage to sites or products. Sites subject to risks of flooding or typhoons are suitably protected, and emergency plans are in place to protect people and property and prevent or limit production shutdowns.

### **Time horizon**

Medium-term

### **Likelihood**

About as likely as not

### **Magnitude of impact**

Medium

### **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 figure provided is an estimate based on the hypothesis of roughly doubling the costs presently paid by the company (yearly insurance costs and mitigation measures). Examples: - The main risk linked with hail storms is to damage new cars on unprotected car parks. This risk has an impact on insurance premiums and related costs (deductibles and self-insurance costs), currently estimated at around €50 million. - A strong flooding or hurricane may cause an unprepared plant to lose up to 2 weeks of production, which may represent for the concerned plants a prejudice comprised between € 10 and 20 million euros.

### **Cost of response to risk**

15000000

### **Description of response and explanation of cost calculation**

The figure provided for cost of response corresponds to the hail risk, which has been subject to significant investment costs, with a total €15 million investment plan (protection of new car parking lots) carried out since 2010. The typhoon risk has been taken into account since the construction of Renault's Busan plant in South Korea, and every new building or facility built in this plant is designed to face such extreme weather conditions without any major damage. Every facility exposed to flooding risk has established a prevention and business recovery plan in order to prevent any major damage and minimize business interruption in case of flooding. An ambitious new car lots protection plan has been implemented from 2010 to 2013 in order to protect new cars from hail storms, especially in the most exposed locations. For example photovoltaic projects implemented in French and Spanish plants in 2012 and in Busan plant (Korea) in 2013 are part of this plan, which included the implementation of more traditional large scale parking lots protection panels. - As Korean construction standards are fitted to face typhoon risk, these constructive prevention measures are not associated with quantifiable additional costs. The measures implemented for the prevention and mitigation of the consequences of flooding and typhoon risks are mostly organizational. It is supervised by a dedicated team in the prevention and protection department. Management costs for the coordination team can be estimated to € 100K yearly.

### **Comment**

## **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**

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**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Description Regulations pertaining to regards CO2 and pollutant emissions are gettting more and more stringent. In addition, there is increasing societal concern about the urgency of combating climate change, and about the health effects of products and industrial processes. These concerns have a significant effect on market structure and consumer preferences, with a shift towards low emissions technologies such as battery electric vehicles (BEV), hybrid vehicles and plug-in hybrid vehicles. Specific This shift in market in a major opportunity for sales development : as a pioneer in BEV, Groupe Renault is in an excellent position to benefit from this shift in consumer preferences and from the political incentives that many countries are implementing for low-emission and zero-emission vehicles, and the restrictions on the use of polluting vehicles that are being enforced in some city centers and/or in case of pollution peaks. The Group can build on 10 years’ experience in design, manufacture, sale and after sales, with 30,000 employees trained in the specific features of electric vehicles. The Group has a comprehensive range with ZOE, Kangoo Z.E., Master Z.E., and, from 2020, Twingo Z.E., sold in numerous countries in Europe and elsewhere; It provides an offer of hybrid and plug-in hybrid technologies, with E-TECH on Clio and E-TECH PLUG-IN on Megane, as well as a host of additional solutions based on alternative energies, such as hydrogen fuel cells on the Kangoo Z.E. Hydrogen and Master Z.E. Hydrogen light commercial vehicles.

### **Time horizon**

Medium-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)**

1700000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

Although the share of BEV (i.e. Battery Electric Vehicle) on the global car market is still small, it is growing fastly, buoyed by political incentives and restrictions on the use of polluting vehicles. In Europe, Renault is leader in electric mobility in Europe with over 250,000 battery electric vehicles already on the roads at end 2019. In 2019, the Group recorded a new 23.5% increase in its worldwide sales of electric vehicles, to more than 62,447 units. Explanation of financial impact figure : in 2019, sales of electric vehicles accounted for roughly 3% of the Group’s revenue. With a revenue of €55,537 million in 2019 Group Renault, EV sales accounted for roughly €1,700 million.

### **Cost to realize opportunity**

400000000

### **Strategy to realize opportunity and explanation of cost calculation**

Action: Renault is actively working on the achievement of this goal with the following priorities : - create the conditions for EVs to reach a significant share of vehicle sales in EU and non-EU countries with CAFE-like regulations : (1) market affordable vehicles with over-300 km autonomy and (2) work with authorities for the development of EV charging infrastructure and (3)facilitate the search of charging station. Example: To facilitate the use of electric vehicles, Renault continues to develop innovative connected services, For example, the Z.E. Pass application allows drivers to locate available charging stations and offers a roaming service that gives access to most terminals without the need for multiple subscriptions. In addition, a new service helps to plan long journeys by calculating the total travel time (journey + battery recharge) and gives directions to the most relevant charging station. Cost to realize opportunity:The Electric Vehicle program has represented an investment of more than € 4 bln for Renault since 2006, or an average € 400 Mio p.y. Alone, the manufacturing of the new R240 electric motor of Renault ZOE in the Cléon plant (France) has required a € 50 million investment.

### **Comment**

### **Identifier**

Opp3

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Energy source

### **Primary climate-related opportunity driver**

Use of supportive policy incentives

### **Primary potential financial impact**

Reduced indirect (operating) costs

### **Company-specific description**

Specific purchasing costs fixed by governments to promote solar energy have made it possible to implement large photovoltaic projects in 6 French plants, 3 Spanish plants and in our Korean plant, in partnership with financial and technical partners. In addition to its environmental benefits in terms of avoided CO2 emissions, this project has made it possible for Renault to protect large areas of newly built car parks from hail risk, thus saving several million euros which should have been spent otherwise for this hail protection purpose only.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Low

### **Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

### **Potential financial impact figure (currency)**

12000000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

The large photovoltaic projects implemented in France, Spain and Korea with partner investors avoided € 12 million euros of investments which would have been required otherwise to achieve an equivalent level of protection of new car parks against hail storms. Besides, in 2013 one of these photovoltaic facilities avoided € 12 million worth damage on newly built cars during a single hail storm which occured near our Batilly plant in France.

### **Cost to realize opportunity**

80000

### **Strategy to realize opportunity and explanation of cost calculation**

Action: The hail risk has a significant financial impact due to the damage caused to new vehicles when they are stored in unprotected zones. In order to reduce the risk of damage caused by hail, between 2010 and 2013, Groupe Renault implemented a widespread plan to cover vehicle storage zones. This work was partly financed by Renault and partly by investors as part of a project to install photovoltaic panels. Example: The solar panels installed on Renault sites throughout the world (in France, Spain and Korea) cover a total surface area of 86 ha. In 2018, the 94 MW of fully renewable electricity that they generate enabled the prevention of more than 28,600 metric tons of CO2 emissions. Cost to realize: This opportunity has been managed through a partnership with financial and technical partners, which support the investment and maintenance costs but benefit from the large surfaces let at their disposal by Renault for the purpose of these photovoltaic projects. These projects have been implemented at no investment cost for Renault as they were financed by partner investors. The indirect operational costs related to the involvement of Renault employees on these projects can be roughly estimated to 1 full-time equivalent engineer during 3 years i.e. approx. € 80 000 per year.

### **Comment**

### **Identifier**

Opp1

### **Where in the value chain does the opportunity occur?**

Upstream

### **Opportunity type**

Resource efficiency

### **Primary climate-related opportunity driver**

Use of recycling

### **Primary potential financial impact**

Reduced direct costs

### **Company-specific description**

Automotive manufacturing requires great quantities of materials. Metals and plastics make up more than 85% of the materials in automobiles. In 2019, approximately 4.1 million metric tons of steel, 400,000 metric tons of cast iron, and 400,000 metric tons of aluminum were used to manufacture vehicles in the Group’s plants and by its parts suppliers. These estimated figures include offcuts of sheet metal and metal shavings generated during supplier parts manufacturing processes and in the Group’s plants. In addition, Groupe Renault used about 490,000 metric tons of plastic materials, including offcuts, in vehicle manufacturing in 2019. The development of the circular economy meets the need to preserve resources and also contributes to reducing the energy consumption (and, therefore, indirect greenhouse gas emissions) used in the extraction of raw materials and production of goods; Increased use of recycled materials and efforts to reduce exposure to critical raw materials are also part of the process of keeping costs low. Reducing exposure to virgin materials has become all the more important given both the extreme volatility and long-term upward trend of primary raw material prices.

### **Time horizon**

Short-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)**

5900000

### **Potential financial impact figure – minimum (currency)**

<Not Applicable>

### **Potential financial impact figure – maximum (currency)**

<Not Applicable>

### **Explanation of financial impact figure**

The increased quantity of recycled materials used in vehicles and the creation of short recycling loops (internally and externally with suppliers) generated additional savings of some €5.9 millions in 2019 compared to the actions already implemented in 2018. Of particular note are the actions implemented to improve the recovery of aluminum waste, as well as the optimization of sorting operations in the Group’s plants. This figure is provided as an example of the gains that can be expected from the development of circular economy, which is one of the main axis of Groupe Renault's environmental strategy.

### **Cost to realize opportunity**

0

### **Strategy to realize opportunity and explanation of cost calculation**

(i)Strategy: The Group’s ability to factor issues related to the scarcity of resources into its strategy is based on circular economy principles, which include: - eco-design standards for both vehicles and batteries, including frugal use of scarce materials, incorporating recycled materials, preparing vehicles for dismantling and end-of-life recycling, and conducting raw materials criticality analyses; - projects that aim to develop and implement new technical solutions and industrial channels for collection, reuse, renovation and recycling of parts and materials, increasing the range of reused or re-manufactured parts on offer, second-life use and recycling of electrical vehicle batteries, and setting up recycling closed loops within the automotive sector; - plans to improve the efficiency of industrial processes, in order to optimize resource use and waste management. (ii)Cost to realize opportunity is estimated to 0, as the implementation relies on the application of design rules and standards. Example: For New ZOE, launched in 2019, Renault and its partners have succeeded in applying the historical carding process to an innovative fabric made of recycled materials from the automotive industry. Designed according to circular economy principles, it comprises on average 50% textile and seatbelt scraps, and 50% recycled fibers from plastic bottles. The short loop organization (manufacturing + procurement) reduces CO2 emissions by more than 60% compared to the fabric of the previous ZOE from a standard manufacturing process.

### **Comment**

## **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 B2DS  Other, please specify (BIPE WAPO 2016 Green Constraint, IEA 2DS) | (1) How the scenario was identified: For scope 1 & 2, to make a commitment on long-term CO2 emissions in line with SBT initiative, Groupe Renault worked on IEA B2DS scenarios. In order to set-up the SDA (sectoral decarbonization approach) tool for scope 1 & 2 of OEM manufacturing, Groupe Renault worked with SBTi on the SDA tool. The IEA ETP B2DS trajectories were used to define the trajectories on scope 1emissions & Scope 2 with electricity decarbonization models of IEA ETP B2DS. The International Energy Agency (IEA) Mobility Model 2DS completed the scenarios for the estimations of volumes. For the scope 3 Groupe Renault used 2 scenarios: - the Scenario BIPE WAPO 2016 Green Constraint until 2030 completed by IEA 2DS post 2030. The BIPE WAPO green constraint takes into account moderate economic growth and stringent environmental regulation. In this scenario, green technologies are gradually developed and are transferred by the private sector to developing countries. - The scenario IEA 2DS. (2) Description of the time horizon(s): the Groupe Renault’ scenarios are based on 2050 term with a 2030 step. This timeframe is necessary in order to develop more efficient process in manufacturing plants and develop renewable energy strategy for scope 1 & 2. This timeframe is also essential for scope 3 in order to develop low carbon projects. 2030 is the date of achievement of the SBT targets. (3) A description of the areas: For scope 1 & 2 all assets were included (Manufacturing plants as well as research & engineering buildings). Purchasing department was also involved in order to work on energy & renewable energy purchases. Product planning worked on the volumes projections. For scope 3: Strategy, product planning, Research and development were involved to define the global strategy on products and volumes. (4)the results: the results of the scenario analysis highlighted that the energy savings program on our plants had significant results and needed to be extended to reduce CO2 emissions from manufacturing on Scope 1 & 2. For scope 3 the scenarios highlighted the strategic opportunity of Renault electric vehicles, and the need to continue the development of low carbon products. Renault strategy to develop EV and electrified vehicles answer to the requirements of the scenario. The two CO2 targets for 2030 submitted to SBTi were both validated. (5) Case study: The scenario analysis on scope 3 enhanced the need to develop low carbon products. In this objective, Renault announced the development of 12 electrified vehicles (hybrid and plug-in hybrids) and 8 battery electric vehicles over the 2017-2022 timeframe. |

## **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 | (i)Description: Vehicle development is governed by constant changes in regulations, particularly as regards CO2 emissions. In total, around 70% of the Group’s sales worldwide are subject to CAFE-type regulations. In addition, there is increasing societal concern about the urgency of combating climate change. These concerns have a significant effect on market structure. The products and services developed by the Group must be aligned with regulations and consumer expectations. Influence on strategy is high, because not providing an appropriate response could disrupt the core business of the company. (ii)Strategy: These structural changes are taken into account in the Group strategy and incorporated in strategic midterm plan both as opportunities and competitiveness drivers. The Group's plan is based on: - the development of the electrification of vehicles (100% electric, hybrid and plug-in hybrid vehicles) and services provided by batteries to the energy sector (second life and smart charging) to enable reductions in greenhouse gas emissions while promoting the growth of renewable energy; - the development of the circular economy that meets the need to preserve natural resources and contributes to reducing the energy consumption (and, therefore, indirect greenhouse gas emissions) used in the extraction of raw materials and production of goods; - lastly, the development of new electric and shared mobility services. (iii)Case study: For example, over the 2017-2022 timeframe Groupe Renault plans to launch : - eight 100% electric models, representing 20% of the company's portfolio. Renault is leader in electric mobility in Europe with over 250,000 100% electric vehicles already on the roads. The Group has the most comprehensive range on the market with ZOE, Kangoo Z.E., Master Z.E., and, from 2020, Twingo Z.E., sold in numerous countries in Europe and elsewhere; - Twelve electrified vehicules (hybrid, plug-in hybrids), representing 50% of the company's portfolio, with the E-TECH technology already available on Clio (hybrid), Megane and Captur (plug-in hybrids). |
| Supply chain and/or value chain | Yes | (i)Description: The Group is exposed in a significant way to the risk of a disruption in the supply chain of its production sites, which could lead to interruptions in the manufacturing chain and, ultimately, the delivery of vehicles to dealers and customers, with negative impacts on Group's sales, revenues, profits or even customer satisfaction. These potential failures could be either internal, due to the underlying interdependence of the Group’s industrial networks, or external, for example due to climate-related natural disasters. (ii)Strategy: Those risks are taken into account in the Group's strategy to control supplier risk. Supplier risk control is based on an ensemble of systems which rely on the coordinated action of several departments (management and control of supplier risk, financial analysts’ network) working closely together with the operating purchasing managers of the Alliance Purchasing Organization (APO) as well as with other departments that could be impacted (in particular Engineering, Manufacturing and Supply Chain). The prevention policy also covers risks “beyond human control”, such as natural disasters. Renault, Nissan and Mitsubishi thus deploy a Business Continuity Plans program. These risks are presented and handled in Purchasing Risk Committees at Group level and for each local Purchasing department. These multi-disciplinary bodies, in which all the functions affected participate (financial, legal, audit, logistics, communication, public affairs and Human Resources), are chaired by the Purchasing department. The Purchasing Risk Committee determines the action plans to be implemented in collaboration with suppliers in order to reduce their risks, improve their competitiveness and ensure the long-term security of the supply chain. |
| Investment in R&D | Yes | (i) Description: Vehicle development is governed by constant changes in regulations, particularly as regards CO2 emissions. In total, around 70% of the Group’s sales worldwide are subject to CAFE-type regulations. In addition, there is increasing societal concern about the urgency of combating climate change. These concerns have a significant effect on market structure. The products and services developed by the Group must be aligned with regulations and consumer expectations. Influence on strategy is high, because not providing an appropriate response could disrupt the core business of the company. (ii) Strategy: Groupe Renault spends more than €2.5 billion a year on research and development. The majority of these resources are allocated to the development of new vehicles, a process in which improving environmental performance (especially in terms of CO2 emissions reduction, driven by stringent regulations) is integrated and inseparable from the standard product renewal process. These R&D activities support the Group's objective to launch 8 electric vehicles and 12 electrified vehicles over the 2017-2022 period. Upstream of vehicle projects, around €200 million is allocated annually to research and advanced engineering. A large share of this expenditure is spent on innovations specifically aimed at reducing vehicle emissions, which is a regulatory imperative, particularly in Europe, a factor in product appeal, and a major lever for reducing Renault's environmental footprint. (iii) Case study: For example, as a result of previous years' R&D investments, 2019 saw the launch of the E-TECH technology , the first full hybrid powertrain of Groupe Renault, available in both hybrid and plug-in hybrid form. In 2019, Groupe Renault also introduced hydrogen fuel cells in its range of light commercial vehicles with Kangoo Z.E. hydrogen and Master Z.E. hydrogen, as a complementary solution to electric and hybrid vehicles. Areas of research include, for example, new battery technologies for electric vehicles, trough partnerships such as (i) Evenate, a start-up specialized in the design of silicon-dominated lithium-ion batteries offering ultra-fast charging capabilities and high energy density, or (ii) Ionic Materials, a company that is developing a polymer material whose properties could contribute to the development of so-called “solid state” cells. |
| Operations | Yes | (i) Description: (I)The market shift from internal combustion vehicles to electric and electrifed vehicles has a significant impact on manufacturing plants, as the production processes differ significantly. These changes in manufacturing plants also require significant efforts to train the workforce to new tools, methods, processes. (II) Manufacturing costs are impacted by the expected increase in energy prices and climated-related regulation such as CO2 emissions quotas (EU-ETS). Energy management is a significant economic topic for Groupe Renault, with a total annual energy bill of around €300 million. (ii) Strategy: (I)To support the launch of 8 electric vehicles and 12 electrified vehicles over the 2017-2022 period, the Group invests in the development and scaling up of production capacities for electric vehicules in France. (II) The Group plans to reduce the carbon and energy intensity of its manufacturing activities by an average of 3% annually between 2013 and 2022 (i.e., a 24% reduction over the period). (iii) Case study: (I) In 2018, Group Renault annouced more than one billion euros to accelerate investments for the development and production of electric vehicles in France, in four leading production sites for electric vehicles: - Douai: introduction of a new Alliance electric platform - Flins: doubling of ZOE production capacity - Cleon: tripling electric motor production capacity and introduction of the new generation electric motor - Maubeuge: investments for the next generation of Kangoo light commercial vehicles, including an electric version. (II) In 2019, the actions taken to reduce energy consumption in all of the Group’s plants, under the supervision of a dedicated centralized Team, secured savings of approximately €8.2 million on the Group’s yearly energy bill. |

## **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 | Revenues  Direct costs  Indirect costs  Capital expenditures  Capital allocation  Acquisitions and divestments  Access to capital  Assets  Liabilities | Acquisitions and divestments: (1) Description: the transition to a low carbon economy shifts the market towards electrification and new forms of mobility, with numerous emerging actors. and startups. Groupe Renault is exploiting this opportunity to bolster its technology portfolio through new acquisitions. (2) Case study: in 2018 the Renault-Nissan-Mitsubishi Alliance has set up a corporate alliance venture capital fund to focus on investments in “new mobility” including electrification, autonomous systems, network connectivity and artificial intelligence. It plans to invest up to $1 billion to support open innovation over five years (2018-2022). It has invested, for example, in Enevate Corporation, an advanced lithium-ion (Li-ion) battery technology company, and Ionic Materials, a company which is developing solid-state cobalt-free battery materials. By making such investments, Alliance Ventures helps identify and support the development of new technologies for potential use by Alliance members. Assets: (1)Description: with the transition to a low-carbon economy and the shift towards electrification, plants that manufacture products that are expected to decline (such as Diesel engines) need transformation to adapt to this new paradigm and preserve the value of existing assets. (2) Case study: to secure sustainability of historical French leading production assets, Renault invests more than one billion euros to accelerate the development and production of electric vehicles in France (-Douai: introduction of a new Alliance electric platform -Flins: doubling of ZOE production capacity -Cléon: diversification from Diesel activities to electric powertrains -Maubeuge: investments for next generation of Kangoo LCV, including EV version.) Revenues: (1)Description: the increase in demand for low carbon products creates opportunities for Renault to increase its Electric vehicle sales. (2) Case study: to secure business and revenue, Renault develops new products to widen its offering: (a) to new segments, for example to large commercial vehicles such as Master EV, or to more affordable vehicles such as Dacia Spring EV (b) to new markets other than Europe such as China or India market very oriented to electric mobility to reduce urban pollution (2) Renault has an objective of 20% of BEV in its vehicle portfolio by 2022. In 2019, sales of electric vehicles accounted for around 3% of the Group’s revenue. Capital expenditures and Allocation: (1)Description: Capital allocation is directly impacted by the evolution of regulatory and normative requirements related to environmental performance of vehicles. The shift in vehicles technologies to meet these requirements requires Groupe Renault to spend large capital expenditure. (2) Case study: to limit capital expenditures risk to develop new technologies (Electric Vehicle; Hybrid technology; small gasoline engine…), Renault shares allocation within Alliance and strategic cooperations (a) on electric with Nissan, electric platform developed in Japan, planned to be produced in Japan and in France ; (b) on hybrid technology from Mitsubishi; The Alliance and Daimler AG have jointly developed a new downsized small gasoline engine family which offers a significant improvement in fuel economy, as well as low emissions. Groupe Renault plans €18 billions R&D investments over 2017-2022, giving access to shared Alliance technologies (value ~50 billions euros) in a large part pertaining to CO2 emissions reduction technologies (EVs, hybrids, …). Operating costs: (1)Description: operating costs are directly impacted by the evolution of regulatory and normative requirements related to environmental performance of industrial processes and, more broadly, greenhouse gas reduction targets defined in the context of the COP 21 agreement. For example the European Union Emissions Trading System (EU-ETS) directly impacts operating costs. (2) Case study: the strategy implemented aims to minimize the financial costs that these quotas will cause for the Company in the medium and long term, through efforts to reduce the energy consumption of the sites, and rigorous forward looking management, throughout the period 2013-2020 (use of reserves of quotas or purchases on the market). The Group plans to maintain the negative impact of CO2 quotas in the Company’s financial statements (€3 million in 2019) at a similar level in 2020 while retaining a quota reserve, with the aim of mitigating the expected cost upward trend over the 2021-2030 period. Liabilities (1)Description: physical risks like natural disasters could impact our facilities worldwide. (2)Case study: for more than 25 years, the Company has, in consultation with its insurers, put in place an ambitious and rigorous prevention policy that covers personal safety as well as that of property and business continuity. As a result, most existing industrial plants have achieved a high level of prevention and protection, recognized via the “Highly Protected Risk” (HPR) rating, an international standard awarded by insurance companies that verify the application of prevention and protection rules every year across nearly 60 sites. more than 94% of the insured assets in the industrial, engineering and logistics scope covered by Groupe Renault “property damage and business interruption” insurance program have been awarded the HPR label by the Group’s insurance companies. This high degree of control over risks, recognized by insurers, has a direct positive impact on the terms at which the Group is able to buy insurance cover. The reasons for keeping deductibles high include the Group’s consistent policy of prevention, and a desire to make each riskbearing entity more accountable. Access to capital (1)Description: Access to capital rely on investors and banks, who increasingly take into account the environmental performance and reputation. Company are rated not only on their financial performance but also on their attitude toward the environment, social values, societal commitment and corporate governance. Some of the rating agencies have developed, most of the time in partnership with providers of equity indexes, some specific indexes composed of the top-rated companies for environmental, social or governance (ESG) aspects. Groupe Renault is evaluated each year by the main international extra-financial rating agencies. (2)Case study: the impact associated with these risks and opportunities is low since Groupe Renault has good ESG ratings. For example ISS-Oekom is one of the largest ESG ratings agencies in the world. Latest results dec. 2019: Groupe Renault received a Prime rating. The Group received a score of 1/10 for environment, 2/10 for social and 3/10 for governance (on a scale of 1 to 10, 1 being the highest score). |

## **C3.1f**

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

## **C4. Targets and performance**

## **C4.1**

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

Intensity target

## **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**

2011

### **Target coverage**

Company-wide

### **Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based) + 3 (upstream and downstream)

### **Intensity metric**

Metric tons CO2e per vehicle produced

### **Base year**

2010

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

37.51

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

100

### **Target year**

2022

### **Targeted reduction from base year (%)**

25

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

28.1325

### **% change anticipated in absolute Scope 1+2 emissions**

13

### **% change anticipated in absolute Scope 3 emissions**

24

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

30.99

### **% of target achieved [auto-calculated]**

69.5281258331112

### **Target status in reporting year**

Underway

### **Is this a science-based target?**

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

### **Please explain (including target coverage)**

In 2011, as part of its Renault 2016 Drive The Change strategic plan, Renault made a unique commitment in the automotive industry to reduce the average carbon footprint of its vehicles sold worldwide by 3% per year between 2010 and 2016, throughout their life-cycle . This objective was exceeded with a total 18,2% reduction at end-2016 (or an average of 3.3% annually for the duration of the plan) thanks to measures implemented to reduce the carbon footprint of vehicles at each stage of their life-cycle. As part of its new Drive the Future 2017-2022 strategic plan, Renault has renewed in 2017 this commitment with the objective of reducing its carbon footprint by 25% over the 2010-2022 period. In 2018, there was a change in life cycle analysis model used to evaluate emissions from materials and 2010 base was revised in order to maintain data comparability from 2010 to 2018. In 2019, the calculation for emissions from materials was revised to avoid double counting of the use of recycled materials. Thus, the base year intensity figure was recalculated. This target doesn't include Avtovaz whose environment performance will be included between 2020-2022 in Renault environment results. SBT submission and validation of scope 1+2 & WTW for scope 3 has happened in 2019 when the SDA tool was published.

### **Target reference number**

Int 2

### **Year target was set**

2019

### **Target coverage**

Company-wide

### **Scope(s) (or Scope 3 category)**

Scope 3: Use of sold products

### **Intensity metric**

Metric tons CO2e per kilometer

### **Base year**

2010

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

0.00020655

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

100

### **Target year**

2030

### **Targeted reduction from base year (%)**

41

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

0.0001218645

### **% change anticipated in absolute Scope 1+2 emissions**

13

### **% change anticipated in absolute Scope 3 emissions**

24

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

0.000175615

### **% of target achieved [auto-calculated]**

36.5292759681409

### **Target status in reporting year**

Underway

### **Is this a science-based target?**

Yes, this target has been approved as science-based by the Science Based Targets initiative

### **Please explain (including target coverage)**

On the 28th march 2019, our submitted targets have been approved. The following agreed target wording is: "GROUPE RENAULT commits to reduce scope 3 GHG emissions from use of sold products 41% per vehicle kilometer by 2030 from a 2010 base year". The scope is passenger cars & light commercial vehicles, world wide, well-to-wheel CO2 emissions.

## **C4.2**

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

No other climate-related targets

## **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 | 62 |  |
| To be implemented\* | 30 | 3251 |
| Implementation commenced\* | 1 | 108 |
| Implemented\* | 40 | 25175 |
| Not to be implemented | 21 |  |

## **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 buildings | Lighting |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

3677

### **Scope(s)**

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

3726059

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

0

### **Payback period**

No payback

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

There is no investment required for these LED installation projects, as the company had recourse to a leasing scheme.

### **Initiative category & Initiative type**

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

### **Estimated annual CO2e savings (metric tonnes CO2e)**

14121

### **Scope(s)**

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

3230931

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

100000

### **Payback period**

<1 year

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

Kaizen optimisation of processes

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Other, please specify | Other, please specify (Insulation of pipes, valves, heat exchangers, ) |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

1282

### **Scope(s)**

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

337292

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

231000

### **Payback period**

<1 year

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in production processes | Waste heat recovery |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

2685

### **Scope(s)**

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

399399

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

509000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

Heat recovery in paintshop and utilities.

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in production processes | Machine/equipment replacement |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

1629

### **Scope(s)**

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

308460

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

507000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

Installation of airless screwing equipments on assembly lines and compressed air optimizations

### **Initiative category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in production processes | Cooling technology |

### **Estimated annual CO2e savings (metric tonnes CO2e)**

1781

### **Scope(s)**

Scope 2 (location-based)

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

297858

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

95000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

6-10 years

### **Comment**

Optimization of cooling an heating utilities.

## **C4.3c**

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

|  |  |
| --- | --- |
| **Method** | **Comment** |
| Lower return on investment (ROI) specification | Lower levels of ROI are accepted for emissions reduction activities on a case-by-case basis. |
| Dedicated budget for low-carbon product R&D | A significant portion of the Research and advanced engineering budget of the Renault Group is dedicated to low GHG exhaust emissions and low pollutant exhaust emissions of vehicles, as well as alternative types of vehicles such as electric vehicles or hybrid vehicles. |
| Compliance with regulatory requirements/standards | Comply with regulatory requirements and standards is a fundamental prerequisite of the success of Renault. Lots of markets as Europe, China, Korea, Japan, Mexico, India, Saudi Arabia, Iran have introduced CO2 emission thresholds for vehicles. These regulations are becoming more and more stringent and are spreading in other developing markets. These regulations and standards thus drive investments and R and D for vehicle emissions reduction and thereby push innovation. |
| Internal price on carbon | EU-ETS CO2 allowances cost hypotheses are established internally and taken into account in ROI calculations for energy efficiency or emissions reduction investments. They are subject to short- and mid-term projections based on variation models which integrate external factors such as the evolution of energy market and EU-ETS regulations. |
| Financial optimization calculations | Projections of future energy prices are also taken into account in ROI calculations for energy-related investments. These projections are based on models which take into account a series of external factors such as regulatory constraints, the international context (shale gas, geopolitical situation in Russia, Irak, Libya or other oil or gas exporting countries), information and projections from international sources such as Eurostat (expected inflation...) or the International Energy Agency. |
| Internal price on carbon | The Group uses an internal carbon pricing mechanism to drive the reduction in its CO2 emissions. This internal carbon price depends on the scope considered: for vehicle projects, the definition of the carbon price notably includes regulations on emissions in use such as CAFE and CO2 related taxation. For example, the carbon price taken into account to make decisions on technical carbon reduction solutions in vehicle projects in Europe is around €450/metric ton. This value takes into account, among other factors, regulatory issues and tax frameworks attached to each market. |

## **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**

Group of products

### **Description of product/Group of products**

Groupe Renault offers a comprehensive range of battery electric vehicles, from small urban passenger car to commercial vehicles. It also has an offer of hybrid and plug-in hybrid vehicles, as well as a host of additional solutions based on alternative energies, such as hydrogen fuel cells availble on light commercial vehicles.

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

Avoided emissions

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

Other, please specify (Lifecycle Assessment (ISO14040))

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

3

### **% of total portfolio value**

<Not Applicable>

### **Asset classes/ product types**

<Not Applicable>

### **Comment**

The calculation above is the part of revenue due to electric vehicles sales in total worldwide sales. Explanation of financial impact figure provided : in 2019, sales of electric vehicles accounted for roughly 3% of the Group’s revenue. With a revenue of €55,537 million in 2019 Group Renault, EV sales accounted for roughly €1,700 million. Explantion of emissions avoided by a third party : Electric vehicle don't emit any direct greenhouse gaz in use phase. Emissions from scope 1 of electric vehicles owners are equal to zero. Estimated emissions savings from avoided emissions: in 2019, the CAFE (Corporate average fuel economy) in Europe for all manufacturers was 122 gCO2/km, representing the "average" passenger car sold in the UE in 2019. Thus, on average the sale of each BEV by Renault instead of an ICE vehicle avoids the emissions of 18,36 metric tons of CO2 over the full lifecycle (assumptions: 10 years, 150 000km => 122,4\*150000/1000000=18,36).

## **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 2010

### **Base year end**

December 31 2010

### **Base year emissions (metric tons CO2e)**

692487

### **Comment**

2010 is the base year of our scope 1 intensity target. In 2011, as part of its Renault 2016 Drive The Change strategic plan, Renault made a unique commitment in the automotive industry to reduce the average carbon footprint of its vehicles sold worldwide by 3% per year between 2010 and 2016, throughout their life-cycle. This objective was exceeded with a total 18.2% reduction at end-2016 (or an average of 3.3% annually for the duration of the plan) thanks to measures implemented to reduce the carbon footprint of vehicles at each stage of their life-cycle. As part of its new Drive the Future 2017-2022 strategic plan, Renault has renewed this commitment with the objective of reducing its carbon footprint by 25% over the 2010-2022 period.

### **Scope 2 (location-based)**

### **Base year start**

January 1 2010

### **Base year end**

December 31 2010

### **Base year emissions (metric tons CO2e)**

595130

### **Comment**

2010 is the base year of our scope 2 intensity target.

### **Scope 2 (market-based)**

### **Base year start**

January 1 2010

### **Base year end**

December 31 2010

### **Base year emissions (metric tons CO2e)**

595130

### **Comment**

2010 is the base year of our scope 2 intensity target.

## **C5.2**

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

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)**

626947

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **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're reporting both approaches (Market-base and location based). Indeed, 1 of our factories (Tanger, Moroco) uses and produces renewable energy, another one (Curitiba, Brazil) uses renewable energy.

## **C6.3**

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

### **Reporting year**

### **Scope 2, location-based**

697096

### **Scope 2, market-based (if applicable)**

585404

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **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**

Refrigerant gas leakage from air conditioning facilities outside the European Union.

### **Relevance of Scope 1 emissions from this source**

No emissions from this source

### **Relevance of location-based Scope 2 emissions from this source**

No emissions from this source

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

Emissions are not relevant

### **Explain why this source is excluded**

Refrigerant gas leakage from air conditioning are reported for facilities within the European Union but not for those outside the European Union due to the difficulty to obtain reliable data in countries where these emissions are not submitted to any legal reporting obligation. However, these emissions are not considered relevant as they represent less than 1% of the group's global GHG emissions.

## **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**

10896583

### **Emissions calculation methodology**

The CO2 emissions related to the materials and spare parts used to manufacture our vehicules are calculated from “Cradle to gate” emissions. It means, it includes the extraction of materials and fuels, to the transformation of materials into parts, and to the logistics between the extraction and the tier-1 supplier site. The calculation is based on the Life cycle analysis of our vehicules. The calculations are made thanks to Thinkstep GaBi LCA database (Emissions from the production of materials, spare parts and required processing).

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

1

### **Please explain**

The calculation includes real data from suppliers when we obtain the information.

### **Capital goods**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1847004

### **Emissions calculation methodology**

Emissions related to the purchase of capital goods are estimated by multiplying annual tangible investments with Defra UK emission factors per sales volume. As mentioned in our 2019 Universal Registration Document, tangible investments represented € 3,006 millions and were mainly focused on the development, adaptation and modernization of industrial facilities i.e. the purchase of machinery and Equipment. So this amount of investments was converted in GBP based on an average conversion rate of 1,139 EUR/GBP in 2019, and multiplied by the latest available UK-39 Machinery & Equipment emission factor from 2012 Guidelines to Defra, i.e. the 2009 value (0.7 kg CO2e / GBP) which can be considered as conservative given the downward trend observed during the previous years. Spend-based method If the supplier-specific method, hybrid method, and average-data method are not feasible (e.g., due to data limitations), companies should apply the average spend-based method by collecting data on the economic value of purchased goods and services and multiplying them by the relevant EEIO emission factors. Refer to the “Secondary data sources” in the Introduction for further guidance on EEIO data. Companies may use a combination of the material-based method and spend-based method by using both process based and EEIO data for various purchased goods and services. Activity data needed • Amount spent on purchased goods or services, by product type, using market values (e.g., dollars) • Where applicable, inflation data to convert market values between the year of the EEIO emissions factors and the year of the activity data.

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

0

### **Please explain**

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

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

140436

### **Emissions calculation methodology**

(1) The extraction, production, and transportation of fuels consumed by Renault (2) Energy losses during the Transport and distribution (TandD) of the electricity consumed by Renault. The calculation is based on the energy consumptions collected from Renault plants and facilities. (1) For each fuel (natural gas, gasoline, gasoil and LPG), GHG emissions from production are calculated by multiplying the total quantity consumed over the year in Renault facilities by the corresponding emission factor. The emission factors are from JEC V5(JEC (JRC-Eucar-Concawe) and Bilan Carbone® ADEME (ADEME is the French government Agency for the Environment and the Management of Energy). (2) TandD loses of electricity are calculated by multiplying the total electricity consumption of each Renault sites in kWh with % TandD loses of electricity for the representative country and most up-to-date emission factors in gCO2eq per kWh of electricity for the same country coming from IEA database.

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

0

### **Please explain**

These emissions are not considered relevant since they represent only 0.2% of the Renault Group's Scope 3 emissions but have nevertheless been calculated.

### **Upstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

591167

### **Emissions calculation methodology**

(Production Parts - Upstream logistics) Scope of emissions: - Inbound transportation between Renault’s Tier 1 suppliers and Renault facilities, starting when the products and materials leave the gate of the Renault suppliers or Renault sites and ends at manufacturing plants entry. - Upstream logistics CO2 emissions are quantified for all plants. - All transportation mode (air, water, train and road transportation) - Geographical perimeter : Worldwide. The CO2 emissions are calculated on a monthly basis using a Volume x Distance-based method : By matching the volumes transported (m3) and the distance traveled (km) we estimate m3.km transported by truck/train/ship/Air transport including packaging returns (volume of goods transported X distance traveled). We calculate the CO2eq emissions by multiplying the m3.km transported by the appropriate emissions factor for each mode. For road transport the transported volume is converted into a number of km.trucks by applying the load factor, and multiplied by an average fuel consumption in L/100 km per truck. For other modes French ADEME CO2 emission factors are used.

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

0

### **Please explain**

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

997488

### **Emissions calculation methodology**

Scope of emissions : Emissions from the treatment (disposal, incineration, recycling) of waste generated in all Renault operated facilities worldwide (same geographical and operational perimeter as scope 1 emissions). Following the recommendation of the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions, avoided emissions linked to energy recovery during incineration and recycling of materials (avoidance of virgin material production) are NOT deducted. into the calculation. Calculation method : Wastetype specific method Step 1 - Annual collection of data about waste production and waste treatment method. The waste data collection is part of the standard Renault environmental data reporting process. Step 2 - Available emissions factors for different waste treatment processes are collected from the ADEME Base Carbone (www.basecarbone.fr). Emissions factors include the emissions from waste transportation. Emission factors are not country specific. Step 3 - Wastes are classified according to their characteristics (hazardous / non hazardous ; material composition) and their treatment (disposal, incineration, recycling) to fit the emission factors categories. Step 4 - For each waste/treatment category, the total amount of waste produced worldwide is multiplied by the corresponding emission factor.

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

0

### **Please explain**

### **Business travel**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

43614

### **Emissions calculation methodology**

Business Travel : A travel company manages the business travels of Renault’s employees and reports travel distances. Scope of emissions : The reporting perimeter covers the Air and train travels of all Renault employees worldwide (except travels of employees from Turkish, Algeria, and South Korean subsidiaries as they have a dedicated travel agency). The reported data is calculated as follows: The CO2 emission is estimated basing on km travelled, cabin class, uplift factor (constant =109%) :CO2 Emission = MILES \* 1.609 \* UPLIFT \* FACTOR CO2e Calculations should be based on the current, 2011 (July), guidelines produced by DEFRA/DECC’s GHG Conversion Factors, including factoring of actual distance flown. The method uses the airport locations; the emissions are based upon the actual distance flown. The following factors are taken into account: 1. The total distance is calculated using the 2 specified airport locations (based on the ‘Great Circle’ method of calculating distances, where the distance is the shortest between any two points on the surface of a sphere). 2. The distance is multiplied by 1.09 to allow for takeoff, circling and non-direct routes. This is known as the uplift factor. 3. The class of flight chosen which determines the emission factor to use for that distance; economy/premium economy / business / first. For shorter flights class is not applicable. The above choices, determine the emission factor to use in our calculation. 4. The total emissions of carbon dioxide equivalent (C02e), (which includes carbon dioxide, methane (CH4) and nitrous oxide (N2O), converted to carbon dioxide equivalents and summed) per passenger kilometre (these are the Air Passenger Transport Conversion Factors, provided by DEFRA) · Domestic flights are inferior to 785km (based on the midpoint that DEFRA have used for calculating ‘domestic’ and ‘short international’ factors, i.e. 463km and 1108km). · Short international between 785 km and 3,700 km. Long international are more than 3,700 km. Exclusion of travel by cars: Fuel consumption of vehicles belonging to the company or those for which it is responsible (management vehicles, service or taxi pool vehicles, on-site transportation) because it is included in scope 1, not scope 3.

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

100

### **Please explain**

Although they represent only 0.1% of the Renault Group's global scope 3 emissions and are therefore deemed not relevant from the quantitative point of view, emissions from business travel are accounted for and included in our Carbon Footprint for their management value as they are directly impacted by the company's travel Policy and the employee's attitude towards business travel. The information comes from our travel supplier.

### **Employee commuting**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

27856

### **Emissions calculation methodology**

The employee commuting includes travel for employees between their home and primary workplace. Scope of emissions : Renault SAS (France) employees only. Calculation method : - Step 1: We collect the information about the distance between home and workplace and commuting mode (vehicle or public transportation) from all employees of French sites - Step 2: We define the emission factor for each commuting mode. For public transportation the EF is provided by French ADEME (Guide sur les facteurs d’émission). Although local trains and underground accounts for a significant share of public transportation use, we use the emission factors for bus transportation (The split between bus and train is not available. This is a conservative estimate). For personal cars, we consider that most Renault employee drive 6-years old Renault cars in average. Consequently the EF is the average CO2 emissions of Renault cars (CAFE) 6 years ahead of the considered accounting year. -Step 3: We multiply activity data (person-kilometers by mode of emissions we multiply the number of employees for each site by related workdays. - Step 4: To include the effects of teleworking, we deduce the avoided km from the total. On the opposite, carsharing and car-poling effects are not accounted for.

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

0

### **Please explain**

Like the emissions from business travel, those related to employee commuting are accounted for and included in our Carbon Footprint for their management value as they are directly impacted by the company's Policy and the employee's attitude towards commuting.

### **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**

The upstream leased assets that were not included into the scope 1 & 2 emissions in previous reporting periods (until 2018) have now been fully incorporated into scope 1 & 2 emissions.

### **Downstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

622728

### **Emissions calculation methodology**

Transportation and Distribution of sold products (Vehicles logistics only - Excluding the logistics of parts and accessories) Scope of emissions : - All activities starting when the vehicles leave the gate of the Renault facility and ending when the dealers receive the vehicles. - Geographical perimeter: Worldwide. -Vehicle logistics only. Calculation method : Distance-based method. Step 1: Extraction of data from the logistics IT systems. For each logistic leg (departure and arrival point): extraction of the transported vehicle models, load factors, transport modes and distances in km and extraction of the total quantity of vehicles transported on each logistic leg. Step 2: Conversion of physical data into vehicle kilometers transported by truck/train/ship (number of vehicles transported X distance traveled). Step 3: Calculation of emissions - For road the km.vehicles are converted into a number of km.trucks by applying the load factor (number of cars on a truck) which vary according to the model, and the traveled countries. CO2 emissions are calculated by using consumption factors (in L/100 km per truck), empty returning capacities and the corresponding fuel CO2eq emission factor. - For train, barge and ships, km.vehicles are converted into km.tonnes by considering the weight of cars. CO2eq emissions are calculated by multiplying these km.tonnes by CO2 conversion rates (which includes empty returning capacities corresponding to transported modes).

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

0

### **Please explain**

### **Processing of sold products**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

842

### **Emissions calculation methodology**

Renault products which are processed further or re-processed are for 2 types: - Vehicles dedicated to the transport of people with reduced mobility -Second life parts The two activities are already integrated in scope 1 and 2 as other Renault plants. Through Renault Tech, Renault is engaged in the design, manufacture and marketing of vehicles dedicated to the transport of people with reduced mobility. Through Choisy le Roi plant, Renault sells remanufactured motors and parts. These emission figures are already integrated in scope 1 and 2.

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

100

### **Please explain**

Emissions are already integrated in scope 1 and 2 as the process of modifying vehicles is integrated in Renault plants.

### **Use of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

81602027

### **Emissions calculation methodology**

The reported value is calculated as follows: Well to Tank: - 1: We collect the fuel consumption of each vehicle (homologated data or estimated data when not regulated) and the worldwide sales of each vehicle. - 2: For each fuel (diesel, gasoline or electricity), we collect emission factors from JEC (Joint Research Center of the European Commission / Eucar / Concawe) - 3: For each vehicle, we multiply its consumption by its annual worldwide sales and the emission factor of its fuel. - 4: We multiply the annual emissions by 150 000 km (estimated life time of vehicles) to obtain the total well to tank emissions over the use phase. Remark: The emissions factors for biofuel E100 (100% ethanol) is negative (carbon sink). B7 (biodiesel in Europe) and E26 (bio-gasoline) have lower emission factors than regular diesel and gasoline. The E85 emission factor is the same as for regular gasoline. For electricity (electric vehicles fuel), the emission factor depends on the production mix of the country where the vehicle was sold. Tank to Wheel: - 1: We collect the CO2 emissions of each vehicle (g CO2 / km homologated data or estimated data when not regulated) and the worldwide sales of each vehicle. - 2: For each vehicle, we multiply its emissions by its annual worldwide sales. (result = annual emissions of sold vehicles) - 3: We multiply the annual emissions by 150 000 km (estimated life time of vehicles) to obtain the total use phase emissions. Note: Use emissions in the current fiscal year could be calculated from the total quantity of fuel/electricity consumed by Renault products sold in previous years. However, given the difficulty of determining how many Renault products sold in previous years are still in use, Renault uses the total quantity of fuel/electricity consumed while in use over the lifetime (10 years, 150 000 km) of Renault products sold in the current fiscal year as an indicator for CO2 emissions during use.

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

0

### **Please explain**

### **End of life treatment of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1841764

### **Emissions calculation methodology**

Scope of emissions: We consider disposal/treatment of Renault cars sold by Renault at the end of their life in this scope. Calculation method: Renault uses a LCA database integrated in GaBi to calculate the emissions coming from vehicles end-of-life treatments. Emissions are calculated for 32 pivot vehicles representative of Renault range and sales on the basis of their materials composition (see Purchased Goods and Services section). Note : the emissions avoided by the recycled materials generated through the ELV recycling process are not accounted here, otherwise the overall emissions would be negative for this source since they are superior to the emissions related to the end-of-life treatment/recycling of vehicles.

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

1

### **Please explain**

For some components, data on End of life is provided by suppliers

### **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**

Emissions from downstream leased assets (vehicles leased to clients) are accounted for in the "use of sold products" category since these vehicles are accounted for in the yearly vehicle sales figures (as well as production figures). These emissions are reported in the scope 3 " use of sold products"

### **Franchises**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

295598

### **Emissions calculation methodology**

Renault dealers network, especially outside Europe, includes franchised companies or individuals. The number and dispersion (thousands) of retailers make it very difficult to collect accurate data on their GHG emissions, so these emissions are estimated through the rule of three on the basis of the CO2 emissions of the Renault-owned RRG network per new vehicle sold.

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

10

### **Please explain**

Direct emission obtained from Renault owned network account for about 10% of sold vehicles.

### **Investments**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

1447191

### **Emissions calculation methodology**

Companies in which Renault owns a majority equity share are included in scope 1 and 2 emissions and therefore not reported in the "investments" category. The emissions of the companies in which Renault owns a minority equity share are accounted for by the equity method, based on the scope 1 and 2 emissions published in their statutory or sustainability report. This concerns Nissan Motor (43,4% equity share) and Daimler AG (1,55%). So Renault "investment emissions" = Nissan scope1+2 emissions x 43,4 % + Daimler AG scope 1+2 emissions x 1.55%.

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

100

### **Please explain**

Data comes from certified emission figures from companies in which Groupe Renault owns a minority equity share

### **Other (upstream)**

### **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**

No other upstream co2 emissions.

### **Other (downstream)**

### **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**

No other downstream co2 emissions.

## **C6.7**

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

Yes

## **C6.7a**

### **(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

|  |  |  |
| --- | --- | --- |
|  | **CO2 emissions from biogenic carbon (metric tons CO2)** | **Comment** |
| Row 1 | 29793 |  |

## **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**

0.00002183

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

1212351

### **Metric denominator**

unit total revenue

### **Metric denominator: Unit total**

55537000000

### **Scope 2 figure used**

Market-based

### **% change from previous year**

3.02

### **Direction of change**

Increased

### **Reason for change**

In 2019, revenue fell by about 3.3%, sales by 3.4%, whereas combined scope 1 and scope 2 emissions fell by 0.4%. Many parameters have an influence on the emissions intensity per unit of currency, which, combined, contribute to the change observed. For example: - the "volume effect" on CO2 emissions is not proportional: for a given plant, the change in vehicle output is only partially reflected in the change in CO2 emissions, since part of the energy consumption of a plant (heating, lighting, ...) is not directly proportional to production output; - Groupe Renault operates in many countries, with varied energy mixes. In some cases, Groupe Renault plants have green electricity contracts in place (such as the Tangiers plant in Morocco). Each plant produces only a limited portfolio of vehicles, as low as one model for some plants (such as Dieppe in France), and Groupe Renault has a wide range of vehicle on offer, with a wide range of selling prices. Therefore, there is a complex relation between sales mix, revenue, and distribution of production accross plants (hence, CO2 emissions) which contributes to explain why emissions and revenue are not 100% corelated.

## **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** |
| HFCs | 34379 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CO2 | 592071 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CH4 | 256 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| N2O | 242 | IPCC Fifth Assessment Report (AR5 – 100 year) |

## **C7.2**

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

|  |  |
| --- | --- |
| **Country/Region** | **Scope 1 emissions (metric tons CO2e)** |
| France | 280460 |
| Spain | 100849 |
| Portugal | 2946 |
| Other, please specify (rest of the world) | 242692 |

## **C7.3**

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

By activity

## **C7.3c**

### **(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

|  |  |
| --- | --- |
| **Activity** | **Scope 1 emissions (metric tons CO2e)** |
| Mixed manufacturing plants | 164779 |
| Powertrain plants | 70124 |
| Logistics, Engineering and tertiary activities | 61279 |
| Other activities | 330765 |

## **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**

### **(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) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (midstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 565668 | <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)** |
| France | 85886 | 85886 | 1261037 | 0 |
| Spain | 137837 | 137837 | 477217 | 0 |
| Other, please specify (rest of the world) | 449769 | 338077 | 1252397 | 281858 |
| Portugal | 23604 | 23604 | 65786 | 0 |

## **C7.6**

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

By activity

## **C7.6c**

### **(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

|  |  |  |
| --- | --- | --- |
| **Activity** | **Scope 2, location-based (metric tons CO2e)** | **Scope 2, market-based (metric tons CO2e)** |
| Powertrain plants | 112773 | 112773 |
| Mixed manufacturing plants | 175963 | 159229 |
| Logistics, Engineering and tertiary sites sites | 39881 | 39881 |
| Other activities | 368480 | 273522 |

## **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) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (midstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 657215 | 545523 |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C-TO7.8**

### **(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.**

### **Activity**

Light Duty Vehicles (LDV)

### **Emissions intensity figure**

0.000106433

### **Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e**

81602027

### **Metric denominator**

p.km

### **Metric denominator: Unit total**

766697085000

### **% change from previous year**

2

### **Vehicle unit sales in reporting year**

3097766

### **Vehicle lifetime in years**

10

### **Annual distance in km or miles (unit specified by column 4)**

15000

### **Load factor**

1,65. Origin: represents the average number of passengers per vehicle in Europe (Adra, Michaux and André, 2005 quoted in "SECTORAL DECARBONIZATION APPROACH (SDA): A method for setting corporate emission reduction targets in line with climate science". Version 1 | MAY 2015

### **Please explain the changes, and relevant standards/methodologies used**

Since the 2018 questionnaire, for this question we provide Well-to-wheel results so as to be consistent with data provided at question 6.5, instead of Tank-to-wheel results as previously reported. Results : increase in 2019 compared to 2018, one reason for this being a change in the emission factors used for the well-to-tank calculation (JEC V5, JRC-Eucar-Concawe), which leads to higher emission factors for fuel production.

## **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?**

Decreased

## **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 | 1788 | Decreased | 0.15 | The decrease of emissions between the two years due to the increase of renewable energy is calculated as follow: emissions reduction due to renewable electricity purchased in 2019 minus emissions reduction due to renewable electricity purchased in 2018 (111692 - 109904): 1788 TeqCO2. The emissions value (percentage) is the change in emission (col 2: 1788) divided by sum scope 1 + 2 previous year (1216711) X 100=0,15% |
| Other emissions reduction activities | 23387 | Decreased | 1.92 | The projects of 2019 energy saving campaign (listed in C.4.3.b without changes in renewable energy consumption) are estimated to have obtained an annual CO2e savings (metric tonnes CO2e) of 23387 (col2) The emission value calculation is the change in emission 23387 (col2) divided by (scope 1+2 previous year (1216710,68)) \*100 = 1,92% |
| Divestment | 0 | No change |  |  |
| Acquisitions | 0 | No change |  |  |
| Mergers | 0 | No change |  |  |
| Change in output | 32254 | Decreased | 2.65 | The production volume decreased by 3,98% between 2018 and 2019. However we consider that the "volume effect" on energy consumption represents only 2/3 of the output change, since approximately 1/3 of the energy consumption of a car assembly plant (heating, lighting...) are not directly proportional to production output. Hence, 2/3 \* 3,98% = 2,65% decrease of energy consumption and CO2 emissions due to the change in output. The change of emission is equal to 2,65% of scope 1 & 2 previous year : 0,0265 \* 1216711 = 32254 Teq. The percentage calculation is the change in emission (32254 col 2) divided by scope 1&2 previous year : (32254/1216711)\* 100 = 2,65% |
| Change in methodology | 0 | No change |  |  |
| Change in boundary | 0 | No change |  |  |
| Change in physical operating conditions | 0 | No change |  |  |
| Unidentified | 0 | No change |  |  |
| Other | 3119 | Increased | 0.26 | The vehicles production decreased in low carbon electricity countries. The Change in emissions is calculated as follow: (% of electricity consumption in 2019 in France- % of electricity consumption in 2018 in France) \* (total electricity consumed in 2019)\* (electricity intensity of Renault manufacturing plants-electricity intensity in France). The emissions value (percentage) is the result (-3119) divided by total 2018 scope 1 +2 (1216711)=-0,26%. |

## **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 | Yes |
| 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) | 13488 | 2591895 | 2605383 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 995875 | 1868445 | 2864320 |
| Consumption of purchased or acquired heat | <Not Applicable> | 76467 | 37431 | 113898 |
| Consumption of purchased or acquired steam | <Not Applicable> |  | 64730 | 64730 |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> |  | <Not Applicable> |  |
| Total energy consumption | <Not Applicable> | 1085831 | 4562501 | 5648332 |

## **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 | No |
| Consumption of fuel for the generation of cooling | No |
| Consumption of fuel for co-generation or tri-generation | No |

## **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**

2534939

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

2534939

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

### **Emission factor**

57.0545

### **Unit**

kg CO2e per GJ

### **Emissions factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

53863

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

53863

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

### **Emission factor**

64.0545

### **Unit**

kg CO2e per GJ

### **Emissions factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Fuels (excluding feedstocks)**

Fuel Oil Number 2

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

3093

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

3093

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

### **Emission factor**

78.243

### **Unit**

kg CO2e per GJ

### **Emissions factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Fuels (excluding feedstocks)**

Wood Waste

### **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

13488

### **MWh fuel consumed for self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

13488

### **MWh fuel consumed for self-generation of steam**

<Not Applicable>

### **MWh fuel consumed for self-generation of cooling**

<Not Applicable>

### **MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

### **Emission factor**

0.297

### **Unit**

kg CO2e per MWh

### **Emissions factor source**

ADEME carbon database ("Carbon Base ® ADEME")

### **Comment**

## **C8.2d**

### **(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 | 97512 | 3093 | 94420 | 0 |
| Heat | 2602291 | 2602291 | 13488 | 13488 |
| Steam | 0 | 0 | 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**

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

### **Low-carbon technology type**

Wind

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

Morocco

### **MWh consumed accounted for at a zero emission factor**

138342

### **Comment**

Green energy supply for some Renault plants.

### **Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

### **Low-carbon technology type**

Hydropower

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

Brazil

### **MWh consumed accounted for at a zero emission factor**

143516

### **Comment**

Green energy supply for some Renault plants.

## **C-TO8.5**

### **(C-TO8.5) Provide any efficiency metrics that are appropriate for your organization’s transport products and/or services.**

### **Activity**

Light Duty Vehicles (LDV)

### **Metric figure**

0.39

### **Metric numerator**

tCO2e

### **Metric denominator**

Production: Vehicle

### **Metric numerator: Unit total**

1212351

### **Metric denominator: Unit total**

3120008

### **% change from previous year**

3.77

### **Please explain**

This figure is published in Groupe Universal Renault Registration document. It is one of the environmental performance indicators used by the company to measure its progress in terms of CO2 emissions reduction (with an associated target as part of its environmental midterm plan). This indicators measures the CO2 intensity of the company's own operations (Scope 1 & 2), per vehicle produced.

## **C9. Additional metrics**

## **C9.1**

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

## **C-TO9.3/C-TS9.3**

### **(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.**

### **Activity**

Light Duty Vehicles (LDV)

### **Metric**

Sales

### **Technology**

Battery electric vehicle (BEV)

### **Metric figure**

62447

### **Metric unit**

Units

### **Explanation**

Electric vehicles are a major component of Renault’s strategy. The Company is targeting a large-scale roll-out of this type of vehicle, which provides a real solution to atmospheric pollution in urban areas given their absence of pollutant emissions at tail pipe during use, while also significantly reduce the greenhouse gas emissions associated with transportation. In 2019, the Group recorded a 23.5% increase of EV sales in comparison with 2018 in its worldwide sales of electric vehicles, to 62447 units.

## **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-TO9.6a/C-TS9.6a**

### **(C-TO9.6a/C-TS9.6a) Provide details of your organization’s investments in low-carbon R&D for transport-related activities over the last three years.**

### **Activity**

Light Duty Vehicles (LDV)

### **Technology area**

Unable to disaggregate by technology area

### **Stage of development in the reporting year**

<Not Applicable>

### **Average % of total R&D investment over the last 3 years**

41-60%

### **R&D investment figure in the reporting year (optional)**

3176000000

### **Comment**

In 2019 Groupe Renault spent €3.176 billion on research and development. The majority ofR&D expenses are allocated to the development of new vehicles, a process in which improving environmental performance (especially in terms of CO2 emissions reduction, driven by stringent regulations) is integrated and inseparable from the standard product renewal process. Many areas of R&D contribute to the reduction of CO2 emissions, such as the electrification of powertrains (hybrids, plug-in hybrids, battery electric vehicles), lighweighting, aerodynamics, use of alternative fuels, the reduction in use of virgin materials through the use of recycled materials, etc. The development of on-demand mobility services (car-sharing, ride-hailing, especially with electric vehicles), as well as connected and driverless vehicles, also are a factor in the reduction of CO2 emissions thanks to shared usage and the reduction of congestion they enable. These R&D activities support the Group's objective to launch 8 battery electric vehicles and 12 electrified vehicles (hybrids and plug-in hybrids) over the 2017-2022 period.

## **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**

### **(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**

[20.06.11 - Attestation CDP KPMG signée.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/a5oN-kRSa0incaS91KLxfQ/20.06.11AttestationCDPKPMGsign%C3%A9e.pdf)

### **Page/ section reference**

Page 1: "Scope 1: Direct emissions: 626 947 tons CO2 equivalent (100% of scope 1 emissions)" Page 2: "Reasonable assurance for scope 1"

### **Relevant standard**

ISAE3000

### **Proportion of reported emissions verified (%)**

100

## **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 market-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**

[20.06.11 - Attestation CDP KPMG signée.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/a5oN-kRSa0incaS91KLxfQ/20.06.11AttestationCDPKPMGsign%C3%A9e.pdf)

### **Page/ section reference**

Page 1: "Scope 2: Indirect emissions: 585 404 tons CO2 equivalent (100% of scope 2 emissions)" Page 2: "Reasonable assurance for [...] scope 2"

### **Relevant standard**

ISAE3000

### **Proportion of reported emissions verified (%)**

100

## **C10.1c**

### **(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**

[20.06.11 - Attestation CDP KPMG signée.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/a5oN-kRSa0incaS91KLxfQ/20.06.11AttestationCDPKPMGsign%C3%A9e.pdf)

### **Page/section reference**

Page 1: "Scope 3: Other indirect emissions (associated with the design, manufacture, sale, use, and end-of-life processing of cars): 94 779 481 tons CO2 equivalent (100% of scope 3 emissions)" Page 2: "Limited assurance for scope 3"

### **Relevant standard**

ISAE3000

### **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** |
| C8. Energy | Year on year emissions intensity figure | ISAE3000 (limited assurance) | Energy intensity figures (limited assurance).  [163-Energy intensity figures.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/iyaU6Hb-xEG7YNqP-iVV4w/163Energyintensityfigures.pdf) |
| C6. Emissions data | Other, please specify (Fuel-and-energy-related activities: al fuels consumed on Groupe Renault plants are verified) | ISAE3000 | (Fuel-and-energy-related activities: all fuels consumed on Renault plants are verified)  [236-237 Other emissions Data.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/O_dBkp59LEShdPbYW-0jTw/236237OtheremissionsData.pdf) |
| C6. Emissions data | Other, please specify (Industrial waste) | ISAE3000 (reasonable assurance) | Industrial waste, used as an input for scope 3 "waste" calculation. Covered by reasonable assurance  [177-Industrial Waste.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/gJZgsF12ck2O8rGzFwz4NQ/177IndustrialWaste.pdf) |
| C6. Emissions data | Energy consumption | ISAE3000 (reasonable assurance) | Energy consumption (reasonable assurance)  [168-Energy consumption.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/QaVZegLHq0idvh_NcjINaw/168Energyconsumption.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.**

EU ETS

## **C11.1b**

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

### **EU ETS**

### **% of Scope 1 emissions covered by the ETS**

56

### **% of Scope 2 emissions covered by the ETS**

0

### **Period start date**

January 1 2019

### **Period end date**

December 31 2019

### **Allowances allocated**

702500

### **Allowances purchased**

140441

### **Verified Scope 1 emissions in metric tons CO2e**

394996

### **Verified Scope 2 emissions in metric tons CO2e**

0

### **Details of ownership**

Facilities we own and operate

### **Comment**

Groupe Renault plants.

## **C11.1d**

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

(i) STRATEGY

Renault's strategy for complying with the EU-ETS scheme includes :

1) The implementation of energy savings and GHG emissions reduction activities

2) Forecasting future emissions of sites under ETS and anticipate the cost of allowances purchase in ETS phase 3 (2013-2020). The emissions and costs forecasts allow for an arbitration at Renault group level between short term cash optimization and the risk of allowances shortage in the mid-term.

3) The generation of additional carbon credits, through the Clean Development Mechanism project from Tangier plant (CDM project 9139), as soon as the price of carbon credits will justify its activation (see explanation below).

(ii) CASE STUDIES

Case study for 1):

implementation of painting process energy recovery in Pitesti plant: the project was approved thanks in particular to the incorporation of EU-ETS quota price in the return of Investment calculation.

Case study for 3) :

Renault initiated a Clean Development Mechanism project for its Tangiers plant (reduction of direct emissions through energy efficiency improvement and switching from natural gas to biomass for heat production). The project was validated and officially registered by the UNFCCC in 2012 under the following reference "Project 9139 : Heat recovery and fuel switch from natural gas to biomass residues implemented at Renault Tanger Méditerranée (RTM) plant – Melloussa, Morocco". The carbon credits were to be originated between 2015 and 2023, however at the current rate of EU-ETS carbon credits the cost of the process required to generate them (certification of the avoided CO2 emissions...) is equivalent or even higher than their estimated global value, hence the activation of this process remains suspended so far to the evolution of the rate of EU-ETS carbon credits. All data regarding this project are available on the UNFCCC website

## **C11.2**

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

No

## **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**

Drive energy efficiency

Drive low-carbon investment

### **GHG Scope**

Scope 1

Scope 2

Scope 3

### **Application**

Renault group uses an internal price for 3 distinct application 1) EU-ETS CO2 allowances cost hypotheses are established internally and taken into account in ROI (Return On Investment) calculations for energy efficiency or emissions reduction investments in manufacturing plants. They are subject to short- and mid-term projections based on variation models which integrate external factors such as the evolution of energy market and EU-ETS regulations. For example, this internal carbon price was integrated in the decision making of the Pitesti paintshop renovation described in C.4.3.b for which investment required was 310,000€. 2) An internal price has been set for vehicle CO2 emissions reduction. This price is used as a reference to validate or discard CO2 emissions reduction solutions in future vehicle projects. 3 )Client value has also integrated internal carbon price taking into account carbon tax (actual consumption x fuel cost + fuel carbon taxes + bonus / penalty

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

450

### **Variance of price(s) used**

The approach to pricing used is the differentiated pricing: the price varies for scope 1 and 2 (application 1 and 2) and for vehicle use (application 3). All of them have an evolutionary pricing: a price which is in accordance with short- and mid-term projections based on variation models which integrate external factors such as the evolution of energy market and regulation ( EU-ETS/CAFE (Corporate Average Fuel Economy)/ UE carbon tax) regulations. - For vehicle projects, the definition of the carbon price notably includes regulations on emissions in use such as CAFE and CO2 related taxation. For example, the carbon price taken into account to make decisions on technical carbon reduction solutions in vehicle projects in Europe is around €450/metric ton. This value takes into account, among other factors, regulatory issues and tax frameworks attached to each market. - For industrial installations, it takes into account multiple factors such as expected changes in the energy market and CO2 emissions quotas: over half of the Group’s direct emissions are concerned by the EU-ETS quota exchange system, for which the current price is around €20-25/t CO2.

### **Type of internal carbon price**

Internal fee

Implicit price

Offsets

### **Impact & implication**

The internal carbon price shifted mainly investments toward energy efficiency measures and product offering: - The carbon price based on EU-ETS CO2 allowances is used to promote investment in energy efficiency of our manufacturing plants. For example, this internal carbon price was integrated in the decision making of the Pitesti paintshop renovation described in C.4.3.b for which investment required was 310000€. - The internal price set for vehicle CO2 emissions reduction has an impact on product offerings because is used as a reference to validate or discard CO2 emissions reduction solutions in future vehicle projects. It is one of the main drivers of vehicle choice and definition.

## **C12. Engagement**

## **C12.1**

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

Yes, our suppliers

Yes, our customers

## **C12.1a**

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

### **Type of engagement**

Information collection (understanding supplier behavior)

### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

### **% of suppliers by number**

39

### **% total procurement spend (direct and indirect)**

84

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

11

### **Rationale for the coverage of your engagement**

Groupe Renault measures the CSR performance of its suppliers through two main criteria: (1)the percentage of the volume of parts, services & Equipment purchased that are the subject of CSR evaluation; This represented 84% of procurement spent in 2019, or 39% of suppliers by number. (2) the percentage of the volume of “CSR evaluated” parts, services and equipment purchased for which the CSR score reflects a high or very high performance over three years. This was 74,8% in 2019. Under the law on the duty of vigilance , Groupe Renault uses a mapping of the risks of suppliers. In terms of risks relating to human rights and fundamental freedoms, health and safety of persons, environment, ethics and compliance, two areas have been singled out for analysis: (1)risks relating to families of purchases: (1.a) parts. The families of purchases have been classified according to risks, (1.b)services. The families of purchases have been included in a nomenclature produced by an external service provider based on the criteria of the law on the duty of vigilance; (2.)country risks. The mapping as produced by an external service provider based on the criteria of the law on the duty of vigilance. The combination of these two risk factors has enabled supplier and subcontractor sites to be ordered according to four levels of criticality from “low” to “very high”. For those parts production facilities or service provision entities representing the highest potential risks and which have never undergone a CSR assessment, or for which the CSR assessment is not at the required level, external companies carry out audits on the ground. Based on the mapping of supplier risks, the most at-risk production sites were identified. To reduce the risks, these sites are audited based on a triennial plan (2018-2020). In the context of monitoring the measures implemented, in 2018, Renault carried out 43 audits of sites performed by three external companies in six countries in which the Group is present. In 2019, there was a specific emphasis on the monitoring of corrective action plans put in place by the suppliers with the lowest scores in the 2018 audits, with mandatory re-auditing for these suppliers. In addition, a comprehensive new CSR audit campaign with 36 other suppliers at “significant” risk was conducted in 2019 by an accredited audit firm.

### **Impact of engagement, including measures of success**

Groupe Renault measures the CSR performance of its suppliers through two main criteria: (1)the percentage of the volume of parts, services & Equipment purchased that are the subject of CSR evaluation; This represented 84% of procurement spent in 2019, or 39% of suppliers by number. (2) the percentage of the volume of “CSR evaluated” parts, services and equipment purchased for which the CSR score reflects a high or very high performance. This was 74,8% in 2019. Examples of positive outcomes achieved: We have engaged dialog about CO2 emissions with a lithium-ion battery supplier. The aim was to reduce the CO2 footprint of battery production, which is a major contributor to the carbon footprint of an electric vehicle over the full lifecycle. Dialogue has been successful, and electricity for the supplier plant is now fully sourced from renewable energy. This direct, collaborative approach to CO2 emission reduction in the supply chain is currently being deployed to other suppliers and other commodities.

### **Comment**

## **C12.1b**

### **(C12.1b) Give details of your climate-related engagement strategy with your customers.**

### **Type of engagement**

Education/information sharing

### **Details of engagement**

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

### **% of customers by number**

100

### **% of customer - related Scope 3 emissions as reported in C6.5**

81

### **Portfolio coverage (total or outstanding)**

<Not Applicable>

### **Please explain the rationale for selecting this group of customers and scope of engagement**

Changing driver behaviors through eco-driving is one way to reduce energy consumption (gasoline, diesel or electricity). 100% of our customers are likely to take part in this engagement because the eco-driving aids are available on all passenger car and light commercial vehicle models sold under the Renault, Dacia and Renault Samsung Motors (in South Korea) brands, except where local vehicle adaptations change this. Renault offers eco-driving assistance solutions in order to assist them in reducing their fuel consumption through eco-driving. Depending on driving style, savings of up to 25% can be achieved. In addition to embedded eco-driving aids, Renault offers its fleet customers Driving ECO2 training programs on internal combustion and electric vehicles, in partnership with the French driving school ECF (École de Conduite Française) and the International Federation of Safety Education Network (IFSEN). Course participants are trained on their own work vehicles, to which a Driving ECO2 Training System by Renault device is connected. This facilitates an analysis of the overall driving data so as to measure in real time the progress made through the implementation of the skills learned. Renault also offers its corporate customers an embedded telematics system (Fleet Asset Management), which provides corporate fleet managers with remote access vehicle driving data (distance, consumption, average speed and Eco-score). This objective assessment of the driver’s behavior encourages employees to adopt eco-driving measures during their travel and they can be trained if necessary.

### **Impact of engagement, including measures of success**

Depending on driving style, savings of up to 25% can be achieved. Surveys, conducted both internally and externally to better understand customers’ expectations of embedded eco-driving aids, led to the identification of four driver profiles : (1) “participative” drivers who wish to take an active role by changing their behavior, and would like information and targeted advice on how to do this; (2)“delegating” drivers, who are ready to give full responsibility for reducing their consumption to the vehicle; (3) drivers who are both participative and delegating; (4) finally, a minority of drivers who state that they have no interest in any form of eco-driving assistance. In order to meet the specific expectations of each of its customers, Renault has developed a full range of Driving ECO2 embedded driving tools adapted for each driver profile, thus maximizing the impact of eco-driving aids for each type of driver. These embedded aids have fully achieved their goal, which was to raise driver awareness of how their driving affects their vehicle’s consumption and emissions, and initiate a form of collaboration or even dialog between drivers and their vehicles in terms of eco-driving. Since then, Renault has been developing second generation embedded eco-driving aids, which will integrate predictive functions and a higher degree of personalization, connectivity and interactivity with the driver, to further improve the gains.

## **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

## **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** |
| Carbon tax | Support | EU - Directive on Energy Taxation (Revision project) We engaged with the States representatives and European Commission services to communicate the risks and benefits of energy taxation changes for the automotive industry. France - Carbon tax projects We engaged in the Environmental Taxation Committee to communicate the risks and benefits of energy taxation changes for the automotive industry. | Groupe Renault supports Energy Taxation and Carbon taxes provided : - It induces CO2 emissions reductions - It does not result into an increase of the overall rate of government levies. |
| Other, please specify (Electric Vehicles (EV) incentives) | Support | Renault is engaged with policy makers at international (EU...), national and local (states, regions, cities...) levels to promote financial and non-financial EV incentives in order to support the development of the emerging EV market. | Renault advocates financial/fiscal incentives, which are still essential to the development of the EV market in the short- and mid-term, but also non-financial incentives such as : - the development of the EV charging network - access to low-emission zones - the development of renewable energy production and offers. |

## **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?**

Renault applies a coordination process between the Public Affairs Dpt (in charge of policy dialog and proposals with local, national and European public authorities and administration) and the Strategic Environmental Planning Dpt (in charge of climate change strategy).

- Once every 2 weeks, a member of the Public Affairs Dpt holds a meeting with the Strategic Environmental Planning Dpt members to review the current and upcoming subjects and actions, and ensure that Public Affairs' engagements with policy makers are consistent with the Group's climate change strategy.

- On specific policy issues (mainly on EV incentives action plan), a member of the Strategic Environmental Planning Dpt or the expert from the Strategic Environmental Planning Dpt network is appointed to ensure the follow up and coordination of activities with the Public Affairs Dpt.

## **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**

In mainstream reports, incorporating the TCFD recommendations

### **Status**

Complete

### **Attach the document**

[Universal registration document\_Groupe Renault\_2019.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/gzCci5mx9kOH8_BQ6n05qQ/UniversalregistrationdocumentGroupeRenault2019.pdf)

### **Page/Section reference**

Governance: 164, 282-297, Strategy: 163-174, especially 164-166 Risks & opportunities: 137, 164-166 Emissions figures: 163-174 (especially 163, 166, 168, 169, 170) Emission targets: 163, 165 (SBT target) Other metrics: 153-188 (environment section of universal registration document) TCFD cross-reference table: 240 and support to TCFD 164.

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

### **Comment**

## **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 | Vice-President, Strategic Environmental planning. | Environment/Sustainability manager |