# **Renault - Climate Change 2018**

## **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 more than 130 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:

- Nissan;

- AVTOVAZ.

The shareholding in Nissan is accounted for under the equity method in the Group’s financial statements and that in AVTOVAZ is fully consolidated (since december 2016).

Renault SA holds 43.4% of Nissan’s share capital and Renault SAS holds 82,45% of Alliance Rostec Auto B.V wich holds 64,60% of Avtovaz.

All reported data and informations cover exclusively group 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** |
| Row 1 | January 1 2017 | December 31 2017 | No | <Not Applicable> |
| Row 2 | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Row 3 | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Row 4 | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C0.3**

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

France

Other, please specify (Rest of the world)

## **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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational 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) of the individual(s) on the board with responsibility for climate-related issues.**

|  |  |
| --- | --- |
| **Position of individual(s)** | **Please explain** |
| Board/Executive board | Organization involves direct reporting to the Group Executive Committee and highlights the cross-cutting importance of environmental, and most particularly climate related issues. |

## **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** | **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) | Regularly presented to board executive members (according to their position): - status, roadmap, strategy to reach environment key performance indicator (CAFE, Carbon footprint) and life cycle analysis and other climate related indicators (pollutants...) |

## **C1.2**

### **(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.**

|  |  |  |
| --- | --- | --- |
| **Name of the position(s) and/or committee(s)** | **Responsibility** | **Frequency of reporting to the board on climate-related issues** |
| Other, please specify (VP stragic environmental planning) | Both assessing and managing climate-related risks and opportunities  *Climate and other environmental subjects: energy, substances, materials, pollutants, recycling, circular economy, public policy* | More frequently than quarterly |
| President  *President of Renault environment (CEO)* | Both assessing and managing climate-related risks and opportunities | 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.**

The CSR sectors 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 and the health impacts 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, depending on the cross-functional nature of the subjects, 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 Audit, Risk and Ethics Committee (CARE), one of the specialized committees of the Board of Directors. The three departments analyze and map the major risks identified by the Risk Management department, notably those associated with CSR practices in the supply chain, health and working conditions, substance risk, availability of and price variations in raw materials, damage to the environment and people in the event of malfunctions in the facilities operated by the Group. 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?**

Yes

## **C1.3a**

### **(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.**

### **Who is entitled to benefit from these incentives?**

Chief Executive Officer (CEO)

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Emissions reduction target

### **Comment**

In 2017 was added in president 's remuneration, an additional objective that will incentivize achievement of key initiatives under the new long-term Strategic Plan, Drive the Future: electric vehicles Description of the incentive: Electric vehicles: 30% (of salary variable) - Measure: Electric vehicle sales at budget - Rationale: Key lever to take advantage of the energy revolution and keep Renault’s competitive advantage

### **Who is entitled to benefit from these incentives?**

Chief Executive Officer (CEO)

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Emissions reduction target

### **Comment**

8% of the variable portion of the remuneration is based on RSE and environment related criteria : performance emissions (Renault registration document p 295)

### **Who is entitled to benefit from these incentives?**

Other, please specify (VP strategic environmental planning)

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Emissions reduction target

### **Comment**

The Vice President, Strategic Environmental Planning and the members of the Strategic Environmental Planning department in charge of the corporate carbon footprint management receive financial incentives on the basis of the achievement of the corporate target on Group carbon footprint reduction. In addition, the achievement of the Logistics Carbon Footprint performance target is taken into account in the setting of the variable portion of the remuneration of the Logistics Director and the Environment and Energy Manager of the Logistics Division.

### **Who is entitled to benefit from these incentives?**

All employees

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Behavior change related indicator

### **Comment**

Besides the Corporate profit-sharing bonus, based on financial criteria, each site has a specific profit-sharing and incentive plan, mainly or exclusively based on non-financial criteria. These criteria, selected jointly with unions at site level, include behavioural and environmental criteria such as waste sorting, printing paper consumption and energy consumption. For instance in the Choisy plant in France, which is strongly committed to resources preservation as its core activity is to renovate used powertrains and gearboxes, the power consumption outside of production hours is one of the criteria for the calculation of the bonus distributed every year, in order to motivate every employee to switch off the lights and electrical equipments at the end of the day. Another exemple: in central offices around Paris (Boulogne attached employees), All employees have an incentive on their carbon footprint (scope 1, 2 and scope 3: travels, Employee commuting).

## **C2. Risks and opportunities**

## **C2.1**

### **(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **From (years)** | **To (years)** | **Comment** |
| Short-term | 1 | 2 |  |
| Medium-term | 2 | 6 | In line with Plan Drive the future |
| Long-term | 6 | 15 |  |

## **C2.2**

### **(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

## **C2.2a**

### **(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Frequency of monitoring** | **How far into the future are risks considered?** | **Comment** |
| Row 1 | Six-monthly or more frequently | >6 years | Risks related to climate change are integrated, among other risks faced by the Renault Group, to the overall risk management processes and instances described on question C.2. 2.b. |

## **C2.2b**

### **(C2.2b) Provide further details on your organization’s process(es) for identifying and assessing climate-related risks.**

I- 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.

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 and opportunities have been identified within the Renault Group :

A. Regulatory : Changes in climate change regulation at both product (CAFE- Corporate Average Fuel Economy...) and industrial (EU-ETS...) levels.

B. Customer expectations and product competitiveness

C. Weather-related risks and opportunities

D. Reputational risks and opportunities

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 :

- A, B and D are dealt with by Strategic Environmental Planning Div., with the support of Public Affairs, Vehicle Regulation and Homologation and Manufacturing Divisions. Thoses risks are reported yearly to the GEC (the Group Executive Committee is the highest senior management body of the Renault Group and is chaired by the Chairman of the Board and CEO), which validates the related management strategy and the means required for its implementation.

- C : see the "assets level" section below.

II- 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.

Risks are prioritized in the frame of the Major Risks Mapping process according to :

- The magnitude of their impacts (from a financial, industrial, commercial, legal or image point of view) : Catastrophic, Major, Important or Minor ;

- The likelihood of their occurrence : Very likely (at least once a year), likely (within 3 years), quite unlikely (10 years) or highly unlikely (30 years) ;

- The level of control over those risks : Very poor control (risk consequences are widely ignored), poor control (risk consequences are evaluated but no solution is available), medium control level (mitigation measures are implemented but their efficiency is not demonstrated), High control level (mitigation measures are implemented which efficiency is demonstrated).

The definition of substantive financial impact when identifying or assessing climate-related impact for the group depends on the level impacted, if it is on compagny level or asset level.

For the asset level, for example the risk related to EU-ETS regulation of 1 million euro yearly is considered relevant ).

At the company level, for example the risk related to CAFE (Corporate Average Fuel Economy) regulation simulated as if the regulation was applicable in 2017, with the CO2 average emissions in 2017 and European sales in 2017) of 2,7 milliards euros yearly can be relevant (=(110 -95)\*95\*1 911 169).

## **C2.2c**

### **(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

|  |  |  |
| --- | --- | --- |
|  | **Relevance & inclusion** | **Please explain** |
| Current regulation | Relevant, always included | The Group has a structured approach to analyze the robustness of regulatory compliance over a range of regulated areas defined in collaboration with the Legal department (including “competition”, “fraud and corruption”, “environment”, “health-safety-work environment”, “technical regulations”, etc.). This approach is led by the Regulatory Compliance department, part of the Internal Control department, and is monitored by the Ethics and Compliance Committee. The aim is to ensure compliance with laws and regulations, reduce the exposure of the Company and its executives to risks of criminal, administrative and financial sanctions and protect its image. The system is based on three types of actors: - the functional departments that set specifications (Technical Regulations department, Legal department, HSE department, 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 Regulatory Compliance department defines the methods and evaluates the regulatory compliance systems, with the support of the Legal department. For example the regulation related to EU -ETS is assessed and managed by HSE department for manufacturing plants. |
| Emerging regulation | Relevant, always included | Intelligence report in each department is a key point to anticipate the regulation evolution (new material to develop or to replace and also new technology to implement). For example, the CAFE (Corporate Average Fuel Economy) regulation which will impact all car manufacturers in Europe in 2021 is already assessed. It is evaluated as a priority objective for the Group, which has considerable advantages in this respect, having been in the Top 3 of the most virtuous European manufacturers in terms of CAFE over the last six years and, also for the last five years, having been leader in the market for 100% electric vehicles. |
| Technology | Relevant, always included | In order to continue the reduction in CO2 emissions of its internal combustion engine vehicles to meet its carbon footprint commitments, to comply with the regulatory requirements in each of the Group’s markets (EU with average emissions limited to 95 g CO2/km by 2021, as well as China, Korea, Brazil, India, Turkey, Mexico, Japan, etc.) and to retain a sustainable position among automotive industry leaders in this field, Renault relies on various courses of action, such as: - vehicle weight reduction through the use of lighter materials such as aluminum and the use of technological advances (hot pressed steel, etc.) that lighten the parts while retaining the desired mechanical characteristics; - aerodynamics; - downsizing, i.e ., reducing the cubic capacity (and therefore the consumption) of an engine with the same power output by means of turbochargers and optimized combustion; - the reduction of heat loss and mechanical friction; P different levels of hybridization, from Stop and Start, now available on the entire range of affordable, rechargeable, hybrid technology which offers “zero emission” mobility for short day-to-day journeys, and is set to supplement Renault’s electric product line in the next few years. As part of its new Drive the Future 2017-2022 strategic plan, Groupe Renault has announced the launch of 12 electrified models representing half of the range |
| Legal | Relevant, always included | The legal risk is also considered relevant in Renault organization's climate-related risk assessments. For example, China is the other large market in which the Group is subject to stringent regulatory restrictions in matters of CO2 emissions from vehicles. Noncompliance with Chinese CAFC (Corporate Average Fuel Consumption) objectives by the manufacturer would, however, not lead to financial penalties, but to a prohibition on selling the least fuel-efficient models, which would consequently represent a risk for the manufacturer or a commercial and financial opportunity, depending on its positioning in terms of CAFC. Groupe Renault, which, since the first half of 2016, has had an industrial site at Wuhan with its partner Dongfeng, has therefore made the CAFC positioning of its range a key element of its product strategy in China, so that it constitutes a driver and not a brake on its growth in this market. For this, it can rely on its experience in electric vehicles and low-cost cars and, in the medium-term, offer electric vehicles in the Chinese market in addition to a modern and high-performance internal combustion range. Changes to the average CO2 emissions of the vehicles sold by Groupe Renault in Europe and throughout the world, as well as the strategy and product news associated with the internal combustion and electric ranges is a key point. |
| Market | Relevant, always included | 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 increasingly informed, on a global scale, by anticipatory technology watch by all of the Group’s development stakeholders, of the automotive industry and beyond (consumer electronics for example). 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 varied engine portfolio (petrol, diesel, electric, etc.) to meet customer expectations in different markets and be resilient to potential changes in the engine mix. The medium-term plan Drive the Future notably strengthens the Group as regards this last point, through the introduction of new gasoline, electric and electrified engines, also contributing to the management of the risk of decline in the markets for diesel-engine vehicles. These new engines form an integral part of the panoply of technologies used to build a competitive response to the increasingly stringent demands of different markets in terms of energy performance and pollutant emissions. For example, in particular 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 during use. They can also significantly reduce the greenhouse gas emissions associated with transportation. |
| Reputation | Relevant, always included | The identification and control of environmental risks are included in the Group’s overall risk management system. Environmental issues and associated risks have 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. In 2015, Groupe Renault conducted a materiality analysis with a specialized firm to identify and prioritize corporate social responsibility stakes that may affect its ability to generate value in the short and medium term. The matrix generated presents the challenges seen by Senior Management and the corresponding key functions compared to their positive or negative impact on the value creation for the Company and the level of importance given to them by all of its stakeholders. Based on a comprehensive review of the literature, the 30 stakes identified were pre-positioned in a nine-box matrix. An explanatory file accompanied each of the stakes to justify the pre-positioning. A series of meetings with the Group Executive Committee and with officers for the main functions concerned was then organized to challenge and review the initial version, followed by in-depth discussions with representatives of the primary stakeholders, which included employee representatives, consumer associations, an NGO, the automotive press, a sustainable development (SD) analyst, an international consortium of specialist SD companies, a supplier and a consultancy firm specializing in SD for the benefit of future generations. The matrix was adjusted to include feedback from this series of interviews and submitted to the Steering Committee, the Risk and Internal Compliance Committee, and finally to the members of the Executive Committee for approval. The materiality matrix has 2 vectors: - Influence on stakeholders’ opinions or behaviours (moderate, strong, very strong) - Impact on sustainable business performance (moderate, hight, very high) The materiality matrix has identified five critical stakes and one is the vehicle carbon footprint (full life cycle). |
| Acute physical | Relevant, sometimes included | One of the Group’s main environmental risks is climatic risks: risk of disruption to industrial and logistics activities and damage to Company assets as a result of extreme weather conditions (storms, floods or hail, etc.); 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 major earthquakes (Chile, Turkey, Romania, Colombia, Slovenia, Morocco, Iran, 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. |
| Chronic physical | Not relevant, explanation provided | Not impacted. Due mainly to the location of our sites and manufacturing plants the group has not identified risks of chronic physical climate-related risk. |
| Upstream | Relevant, sometimes included | 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 manufacturing and, ultimately, the delivery of vehicles. The main drivers of these risks are either internal, in particular because of the interdependence underlying the Group’s industrial network, or external (supplier site production that is insufficient or interrupted, failures in supply or transport systems) and can themselves be a result of the occurrence of events (such as acute physical climate-related risk : natural events as storms, floods or hail). The implementation of prevention of risks related to disruptions in the supply chain is the responsibility of specialized teams in the Alliance Supply Chain. These teams rely on the sizing, planning and anticipatory management systems of production capacities (Group factories, logistics platforms, critical supplier sites) and transportation, which constantly integrate the Group’s visibility on commercial demand and projected evolution and prioritize the most strategic parts and vehicles to guarantee the Group’s industrial and commercial performance In addition, regular coordination of supplier reliability, along with audits and security missions, is conducted in partnership with the Supply Chain Quality department. Furthermore, a “Supply Security” unit, together with the Purchasing department and plants, provides security in relation to at-risk suppliers, in particular through the establishment of strategic inventories. Finally, IT processes and tools are being reinforced and deployed in the Group’s various entities. The development of advanced digital tools for Risk Sensing and Risk Mitigation in particular has been planned in the context of the Supply Chain function digital transformation program. The protection system relies on: - business continuity plans and specific action plans in the event that a risk is detected by one of the actors in the supply chain (suppliers, shippers, industrial sites), on the one hand; - the coverage of major risks by specific insurance programs (mentioned elsewhere in this chapter), on the other. |
| Downstream | Relevant, sometimes included | One of the Group’s main environmental risks is climatic risks: risk of disruption to industrial and logistics activities and damage to Company assets as a result of extreme weather conditions (storms, floods or hail, etc.) impacts also the downstream activities: the distribution of manufactured vehicles. The prevention politic in relation is to enhanced protection for vehicle storage depots exposed to natural hazards such as storms and hail, using appropriate means, such as nets or roofing comprising photovoltaic panels. For example, this specific downstream risk is insured by insurance companies. The nature and scope of cover is determined via a preliminary risk analysis of operating entities. This approach is used for the following types of risk: “transportation and storage of vehicles in depots”: the Alliance buys a capacity of €295 million per claim with a deductible of €100,000 per claim for damage caused to vehicles in depots and €45,000 per claim for land transportation; |

## **C2.2d**

### **(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.**

I- 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.

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 :

A. Regulatory : Changes in climate change regulation at both product (CAFE...) and industrial (EU-ETS...) levels.

B. Customer expectations and product competitiveness

C. Weather-related risks and opp.

D. Reputational risks and opp.

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 :

- A, B and D are dealt with by Strategic Environmental Planning Div., with the support of Public Affairs, Vehicle Regulation & Homologation and Manufacturing Divisions. Thoses risks are reported yearly to the GEC (Group Executive Comitee), which validates the related management strategy and the means required for its implementation.

For example, in term of transitional risk about climate-related risks and opportunities, the risks and opportunities associated with the tightening of regulations on greenhouse gas 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 valuesin particular). These indicators are reviewed annually by the Group’s Executive Committee, with a view to alignment over the short, medium and long-terms

- C : see the "assets level" section below.

II- 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.

For example, relating to physical risks at assests 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 major earthquakes (Chile, Turkey, Romania, Colombia, Slovenia, Morocco, Iran, 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.

## **C2.3**

### **(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**

Transition risk

### **Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

### **Type of financial impact driver**

Policy and legal: Increased costs and/or reduced demand for products and services resulting from fines and judgments

### **Company- specific description**

The agreement signed in 2015 at the end of the Paris Climate Change Conference (COP21) and the national commitments published on that occasion (INDC) have been analyzed in-depth for their implications for the automotive industry. The related opportunities and risks were presented to the Executive Committee to be taken into account in Group strategy and product planning. Opportunities, as well as risks, associated with the tightening of regulations on vehicle CO2 emissions have been identified as a major competitiveness issue for the Company and are monitored as such by the Executive Committee . Thus, the financial penalty of €95 per gram and per vehicle in case of noncompliance with the European objective of a CAFE per manufacturer of 95 g CO2/km in 2021 would represent for Groupe Renault an overall amount of about €150 million per gram of overrun based on current sale volumes. The achievement of this objective, in order to avoid such penalties, is therefore a priority objective for the Group, which has considerable advantages in this respect, having been in the Top 3 of the most virtuous European manufacturers in terms of CAFE over the last six years and, also for the last five years, having been leader in the market for 100% electric vehicles.

### **Time horizon**

Medium-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

2700000000

### **Explanation of financial impact**

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 2021 would represent for Groupe Renault an overall amount of about 2,7 billions euros if calculated on 2017 datas: The average CO2 emissions for light duty vehicle in 2017 in Europe for Renault is 110 g CO2/km so it would result of 110-95=15 g multiplied by the number of sold vehicles in Europe (1 911 169) = 15 X 1911169 X 95 = 2,7 billions euros if the regulation was active in 2017

### **Management method**

The achievement of this objective, in order to avoid such penalties, is therefore a priority objective for the Group, which has considerable advantages in this respect, having been in the Top 3 of the most virtuous European manufacturers in terms of CAFE over the last six years and, also for the last five years, having been leader in the market for 100% electric vehicles. 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 : market affordable vehicles with over-300 km autonomy in the short term and work with national and local authorities as well as industrial consortiums for the development of EV charging infrastructure ; - Market affordable PHEV within 3 years ; - Continuously improve the fuel efficiency of ICE vehicles through powertrain downsizing, weight reduction and mild hybridization. More than 1.5 bln euros are spent yearly by Renault on Research and development, of which 60 to 70% (i.e. around 1 bln euros yearly) are linked to air emissions and fuel efficiency (powertrain efficiency, exhausts treatment technologies, car weight reduction, aerodynamics, alternatively-powered vehicles...). Among these, approx. €100 million p.y. are exclusively dedicaded to Research and Advanced Engineering on car emissions reduction (incl. CO2).

### **Cost of management**

100000000

### **Comment**

### **Identifier**

Risk 2

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

Direct operations

### **Risk type**

Transition risk

### **Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

### **Type of financial impact driver**

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

### **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 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. Given the reduction in the price of the EU-ETS quotas observed in 2017 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 2017, for a total cost of around €800 thousand. The Group plans to maintain the negative impact of CO2 quotas (Europe and Korea) in the Company’s financial statements at a level of around €1 million per year for the entire 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**

Current

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium

### **Potential financial impact**

1000000

### **Explanation of financial impact**

Given the reduction in the price of the EU-ETS quotas observed in 2017 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 2017, for a total cost of around €800 thousand. The Group plans to maintain the negative impact of CO2 quotas (Europe and Korea) in the Company’s financial statements at a level of around €1 million per year for the entire 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.

### **Management method**

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. 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.

### **Cost of management**

300000

### **Comment**

### **Identifier**

Risk 3

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

Direct operations

### **Risk type**

Physical risk

### **Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

### **Type of financial impact driver**

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

### **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**

Current

### **Likelihood**

About as likely as not

### **Magnitude of impact**

Medium

### **Potential financial impact**

20000000

### **Explanation of financial impact**

'- 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 - The main risk linked with hail storms is to damage new cars on unprotected car parks. This risk is estimated to around € 20 million euros yearly for the Renault group worldwide, not considering existing mitigation measures.

### **Management method**

'- 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 cas 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. The large scale 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 well - 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. Related management costs can be estimated to € 100K yearly. - Only hail risk is subject to significant investment costs within the Renault Group so far, with a total € 15 million investment plan (protection of new car parking lots) carried out since 2010.

### **Cost of management**

100000

### **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**

Opp1

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

Customer

### **Opportunity type**

Energy source

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

Use of lower-emission sources of energy

### **Type of financial impact driver**

Reduced exposure to future fossil fuel price increases

### **Company- specific description**

The Group Renault has a considerable advantages in respect to CO2 emission, because it has been in the Top 3 of the most virtuous European manufacturers in terms of CAFE (CO2 emissions) over the last six years and, also for the last five years, having been leader in the market for 100% electric vehicles.

### **Time horizon**

Current

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

400000000

### **Explanation of financial impact**

From 2010 to 2017 Renault has reduced the average CO2 emissions of its european sales by 24.8 gCO2/km. This represents around 1 l per 100 km of vehicle consumption reduction i.e. around 210 € of savings per year for the client (French fuel prices) (basis 15000 km/yr ). This is as much value added for Renault clients, or a global € 400 000 000 per year on the european 2017 sales of the Group, not considering the positive tax effect which varies from one country to another: 210 X 1911169 = 400 000 000

### **Strategy to realize opportunity**

Renault is not only the European leader in zero-emission vehicles but it is also making major advances in combustion-powered vehicles, which will continue to account for most engines over the next few years. Renault offers since 2012 a full range of electric vehicles suited to different customer needs and has equipped its most popular ICE models with a range of highly energy-efficient Energy engines, as well as Stop and Start technology. Clio IV has upheld Renault’s ambition for low-emission internal combustion vehicles, with the most efficient version of the car homologated at 82 g CO2/km. Same for New Megane with the most efficient version of the car homologated at 86 g CO2/km. To maintain this advance Renault's engineering teams are actively working on further reduction of vehicle CO2 emissions through the downsizing of internal-combustion engines, vehicle weight reduction, aerodynamics, rolling resistance optimization as well as affordable PHEV and mild hybrid technologies, besides the improvement of our range of full electric vehicles. Besides, as vehicle emissions are becoming a major stake of product competitiveness, a dedicated organization has been created in order to monitor the market and regulation trends of each major market, and adapt Renault's product and technology plan in order to anticipate forthcoming evolutions and maintain our offer at the best level of each market in the mid- and long-term.

### **Cost to realize opportunity**

100000000

### **Comment**

### **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

### **Type of financial impact driver**

Increased revenue through demand for lower emissions products and services

### **Company- specific description**

As the European leader of full-electric vehicles (world leader with its partner Nissan) Renault is in excellent position to benefit from the political incentives that most 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.

### **Time horizon**

Current

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

2000000000

### **Explanation of financial impact**

Although the share of BEV (i.e. Battery Electric Vehicle or full EV's) 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 the electric vehicle segment, Renault confirmed its leadership with a market share of 23.8% in Europe. Sales volumes increased by 38% and ZOE was once again the best-selling electric vehicle in Europe, with a 44% growth in registrations. . Continuing this trend the Group's EV sales and associated services (battery rental, leasing, maintenance, car sharing services...)may sum up to € 2 bln in annual turnover in the mid-term. Furthermore, in EU or China, EV's will help Renault meet the very stringent CAFE/CAFC limits in the future, and avoid heavy financial penalties applicable to every vehicle sold on the market, which may represent a billion-euro additional stake yearly by 2021 and beyond.

### **Strategy to realize opportunity**

Renault is committed to ecosystem development that promotes – and is encouraged by – the widespread rollout of electric mobility. Thanks to its Renault Energy Services subsidiary in particular, Renault is joining forces with various partners to impact the energy market. It is based on electric vehicles but also on the multiple “second life” uses for their batteries. The automotive industry is experiencing a revolution, and the car of the future will be electric, connected and autonomous. This implies developing technologies and processes, finding partnerships and operating choices. To meet these challenges, Groupe Renault is adapting by innovating, by collaborating with new players, and by defining new working methods 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.

### **Cost to realize opportunity**

400000000

### **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

### **Type of financial impact driver**

Other, please specify (reduce financial losses)

### **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**

Current

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Low

### **Potential financial impact**

12000000

### **Explanation of financial impact**

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.

### **Strategy to realize opportunity**

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. The locations of the projects were selected according to rentability factors (purchasing cost for solar energy, available solar energy, technical constraints...) and Renault's priorities in terms of new car parks protection. 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.

### **Cost to realize opportunity**

80000

### **Comment**

## **C2.5**

### **(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

|  |  |  |
| --- | --- | --- |
|  | **Impact** | **Description** |
| Products and services | Impacted | Electric vehicles are a major component of Renault’s strategy. The Company is targeting a large-scale roll-out of this type of vehicle. In an electric vehicle market with strong potential, the Alliance is the world leader in electric vehicles and Groupe Renault is the leader in Europe. Renault posted 38% growth in electric vehicle sales in Europe, with a 44% increase in ZOE registrations and a 23.8% market share in 2017. Magnitude: The objectives for Group Renault in 2022 is to launch 8 electric models and 12 electrified vehicules representing 20% of our portfolio. |
| Supply chain and/or value chain | Impacted for some suppliers, facilities, or product lines | To reduce its CO2 impact, Renault is working at reducing the amount of materials used in manufacturing its vehicles. Renault has introduced two technological advances to the steel used in vehicle bodies, in order to reduce the consumption of sheet metal: - the use of sheet metal with high elastic limits (including hot-pressed steel) reduces the thickness and therefore the mass of the parts; - deep-drawing processes have been optimized to improve material consumption, i.e ., the ratio between the mass of the part and the initial mass of the metal blank. These processes allow smaller blanks to be used to make the same part and generate less metal waste. Renault is also reducing its exposure to critical materials that present risks of unavailability or supply shortages Magnitude: Another objective will impact the value chain is Renault objective on recycled plastics consumption: Increase the Group’s overall consumption of recycled plastic (by weight) by 50% between 2013 and 2022 |
| Adaptation and mitigation activities | Impacted | 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 major earthquakes (Chile, Turkey, Romania, Colombia, Slovenia, Morocco, Iran, 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. Magnitude: The Alliance buys a capacity of €2.25 billion per claim at insurance companies (€1.75 billion for 2016) . Deductibles for the Group’s manufacturing activities may amount to €5 million per claim |
| Investment in R&D | Impacted | AMOUNT : 18 billions euros R and D investments 2017 2022 giving access to Alliance technologies ~50 billions euros mainly focus on climate related scope SCOPE • Additional synergies expected from electrification, connectivity and autonomous technologies • 12 pure electric models to be launched, utilizing common EV platforms and components • 40 vehicles to be launched with autonomous drive (AD) technology • To become an operator of robo-vehicle ride-hailing services |
| Operations | Impacted | In July 2018, Group Renault annouced more than one billion euros to accelerate investments for the development and production of electric vehicles in France 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 commercial vehicles, including Kangoo Z.E. |
| Other, please specify | Please select |  |

## **C2.6**

### **(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.**

|  |  |  |
| --- | --- | --- |
|  | **Relevance** | **Description** |
| Revenues | Impacted | Where: Electric vehicle sales How : to secure business and revenue, Renault enlarge its scope - to new segments other than Zoe and Kangoo segment (leader) to large LCV, low cost - to new markets other than Europe (leader) like China and India market very oriented to electric mobility to reduce urban pollution Magnitude: 20% of portfolio vehicules in 2022 |
| Operating costs | Impacted | Where: Electric Vehicle ; Connected and autonomous drive How : to limit operating costs, Renault share them within Alliance with joined entities on all new technologies mandatory to develop to be climate target compliant like ACMS (Alliance connected mobility and services) or DEA (Direction Engineering Alliance) working jointly Renault and Nissan on future Electric platform Magnitude: 80% vehicule and common plateform in 2022 |
| Capital expenditures / capital allocation | Impacted for some suppliers, facilities, or product lines | Where: Electric Vehicle ; Hybrid technology ; small gasoline engine How: To limited capital expenditures risk, Renault share allocation within Alliance and strategic cooperations - on electric with new Alliance electric platform develop in Japan, planned to be produced in Japan and in France ; - on hybrid technology from Mitsubishi recently integrated ; The Alliance and Daimler AG are jointly developing a new direct-injection turbocharged small gasoline engine family which will offer a significant improvement in fuel economy, as well as low emissions. Magnitude: 18 billions euros R and D investments 2017 2022 giving access to Alliance technologies ~50 billions euros mainly focus on climate related scope |
| Acquisitions and divestments | Impacted for some suppliers, facilities, or product lines | Where : new mobility services ; electric mobility services How : to secure core position on new mobility business, Renault group acquires effective society like 25% in Jedlix, a smart charging specialized start-up and launches a new smartphone "z.e. smart charge ". Renault launched also a new subsidiary called "Renault energy services" positioned on the energy sector and smart grids, a key element of electric mobility. Magnitude: $1 billion corporate alliance venture capital fund to focus on investments in “new mobility” including electrification, autonomous systems, network connectivity and artificial intelligence |
| Access to capital | Not impacted | We have not identified any risks. Renault financial planning process is not affected. |
| Assets | Impacted | Where : plants How : to secure sustainability of historical French leading production assets, Renault invest 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 the next generation of Kangoo commercial vehicles, including Kangoo Z.E. Magnitude;1 billion euros |
| Liabilities | Not impacted | 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 major earthquakes (Chile, Turkey, Romania, Colombia, Slovenia, Morocco, Iran, 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. 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 50 sites. Magnitude: 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, thus attesting to the results obtained. This high degree of control over risks, which is recognized by insurers, has a direct positive impact on the terms at which the Group is able to buy insurance cover. |
| Other | Please select |  |

## **C3. Business Strategy**

## **C3.1**

### **(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

## **C3.1a**

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

Yes, qualitative and quantitative

## **C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)**

### **(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

## **C3.1c**

### **(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

The VP Strategic Environmental Planning reports and proposes a climate change business strategy to the Group Executive Board (GEC) at least once a year. The main subjects reported to the GEC are:

1) The current status, prospects and risks related to the compliance and product competiveness issues related to the EU CAFE and similar regulations in other countries (China, India, South Korea, Japan, Brazil, Mexico, Turkey, Iran, Saudi Arabia...) in the next 10 years → Emissions from products only

2) The current status and prospects regarding the achievement of the Carbon Footprint KPI (-25% per year from 2010 to 2022) → Emissions from the full life cycle of sold vehicles including all corporate activities and supply chain and use phase emissions from non regulated countries.

The technology plan (development and deployment of fuel efficient or alternative energy technologies throughout the vehicle line-up), industrial and business strategy are built on the basis of detailed data collection :

- Present and foreseen regulation on vehicle CO2 emissions, in Europe and in major Renault markets → Information collected by the Public Affairs Dpt and the Vehicle Regulation & Homologation Dpt through a groupwide network of correspondents.

- Analysis of the current and foreseen competitiveness and regulation-compliance of Renault line-up in Europe and other Renault markets → Information provided by Strategic Environment Planning.

- Non-vehicle CO2 emissions (e.g. manufacturing etc.) → Information provided by the operational functions.

The objectives sets (and continued) for the new plan 2016-2022 in relation with climate-related issues are the following:

All sectors: Reduce the carbon footprint of Groupe Renault vehicles sold worldwide by an average of 25% between 2010 and 2022 – achieved : 2017 -16.3% (compared to 2010)

Products: launch 8 100% electric vehicles covering all segments, including 5 new models and 3 renewals between 2017 and 2022. Markets: retain position as leader in Europe and penetrate the market in China. 2017: European market leader in electric vehicles since 2013

Worldwide: reduce thetank-to-wheel CO2 Emissions of PC and LCV ranges by 25% between 2010 and 2022 in order to meet the Group’s carbon footprint reduction objectives and to comply with the regulatory requirements for the relevant markets – achieved 2017: 14.4% reduction (compared to 2010)

All segments: Build and report the worldwide “well-to-wheel” CO2 emissions reduction trajectory (based on WLTP) by vehicle, in line with the 2030 and 2050 milestones from the +2°C scenario (2DS) for light duty vehicles published by the International Energy Agency \_ achieved 2017: Action ongoing with Science Based Targets Initiative

Manufacturing: Reduce the carbon and energy intensity of Groupe Renault’s sites in the consolidated environmental scope by an average of 3% annually between 2013 and 2022 (i.e., a 24% reduction over the period) – achieved 2017: Carbon intensity reduced by -0.2% (compared to 2016, i.e. -20.3% since 2013) Energy intensity reduced by -5.9% (compared to 2016, i.e., -16.2% since 2013)

Manufacturing: Achieve a renewable energy share (both direct & indirect) of 20% for sites within the Groupe Renault consolidated environmental scope- achieved 2017: 17.9% in 2017

Logistics: Reduce CO2 emissions linked to logistics activities by an average of 6% between 2016 and 2022 (an average of -1% per year). Achieved 2017: -1.2% (compared to 2016)

## **C3.1d**

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

|  |  |
| --- | --- |
| **Climate-related scenarios** | **Details** |
| 2DS | Group Renault 's public objective (Registration document P190) is to build and report the worldwide “well-to-wheel” CO2 emissions reduction trajectory (based on WLTP) by vehicle, in line with the 2030 and 2050 milestones from the +2°C scenario (2DS) for light duty vehicles published by the International Energy Agency. The target will be submitted to SBT initiative before the end of 2018. The target is under construction in adequation with the SDA tool from SBT. The scope 3 scenario is already set up and is in adequation with SDA tool (2025 or 2030 objective). For Scope 1 and 2 Renault is directly working with SBTi to developp a SDA tool for OEM. Our scope 1 and 2 targets for SBT are in line with the initiative. The scenarios are based on IEA ETP scenarios 2DS "other industries" and "power" and the market share is based on the mobility model of IEA. |

## **C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e**

### **(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization’s low-carbon transition plan.**

To achieve the 2DS , Renault set public objectives (Registration document p190):

- Reduce the carbon footprint of Groupe Renault vehicles sold worldwide by an average of 25% between 2010 and 2022

- Products: launch 8 100% electric vehicles covering all segments, including 5 new models and 3 renewals between 2017 and 2022. Markets: retain position as leader EV in Europe and penetrate the market in China.

- Worldwide: reduce thetank-to-wheelCO2 Emissions of PC and LCV rangesby 25% between 2010 and 2022 in order to meet the Group’s carbon footprint reduction objectives and to comply with the regulatory requirements for the relevant markets

- Build andreport the worldwide “well-to-wheel” CO2 emissions reduction trajectory (based on WLTP) by vehicle, in line with the 2030 and 2050 milestones from the +2°C scenario (2DS) for light duty vehicles published by the International Energy Agency

- Reduce the carbon and energy intensity of Groupe Renault’s sites in the consolidated environmental scope by an average of 3% annually between 2013 and 2022 (i.e., a 24% reduction over the period)

- Achieve a renewable energy share (both direct & indirect) of 20% for sites within the Groupe Renault consolidated environmental scope

- Reduce CO2 emissions linked to logistics activities by an average of 6% between 2016 and 2022 (an average of -1% per year).

## **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

### **Scope**

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

### **% emissions in Scope**

100

### **% reduction from baseline year**

25

### **Metric**

Metric tons CO2e per vehicle produced\*

### **Base year**

2010

### **Start year**

2011

### **Normalized baseline year emissions covered by target (metric tons CO2e)**

36.7

### **Target year**

2022

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

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

### **% achieved (emissions)**

65.2

### **Target status**

Underway

### **Please explain**

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 2017, there was a widening of perimeter (distribution, vehicles produced by commercial partners, employees travel coverage, WLTP approval, thermal energy purchased) and 2010 base was revised in order to maintain data comparability from 2010 to 2017. This target doesn't include Avtovaz whose environment performance will be included between 2020-2022 in Renault environment results. SBT submission and validation will happened in 2018 as soon as we will received the full disclosure of SBT SDA intensity transport tool scope 1+2 , missing for the moment (disclosure of SDA transport tool scope 3 happened in June 2018 – but not yet for scope 1+2)

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

13

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

24

### **Target reference number**

Int 2

### **Scope**

Scope 3: Use of sold products

### **% emissions in Scope**

100

### **% reduction from baseline year**

25

### **Metric**

Metric tons CO2e per vehicle produced\*

### **Base year**

2010

### **Start year**

2017

### **Normalized baseline year emissions covered by target (metric tons CO2e)**

31

### **Target year**

2022

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

No, but we anticipate setting one in the next 2 years

### **% achieved (emissions)**

58

### **Target status**

Underway

### **Please explain**

Worldwide: reduce the tank-to-wheel CO2 Emissions of PC and LCV rangesby 25% between 2010 and 2022 in order to meet the Group’s carbon footprint reduction objectives and to comply with the regulatory requirements for the relevant markets. In 2017 registration document, Renault announced its commitment in setting an SBT Target: "Build andreport the worldwide “well-to-wheel” CO2 emissions reduction trajectory (based on WLTP) by vehicle, in line with the 2030 and 2050 milestones from the +2°C scenario (2DS) for light duty vehicles published by the International Energy Agency"

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

13

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

24

## **C4.2**

### **(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

### **Target**

Renewable energy consumption

### **KPI – Metric numerator**

Consumed renewable in MWh PCI

### **KPI – Metric denominator (intensity targets only)**

Total consumed MWh PCI - both direct and indirect

### **Base year**

2008

### **Start year**

2008

### **Target year**

2020

### **KPI in baseline year**

10

### **KPI in target year**

20

### **% achieved in reporting year**

18

### **Target Status**

Underway

### **Please explain**

The objective is to achieve a renewable energy share (both direct and indirect) of 20% for sites within the Groupe Renault consolidated environmental scope.

### **Part of emissions target**

In Renault 2017 registration document, Renault anounced the 17.9% achievement of the renewable energy share for sites within the Groupe Renault consolidated environmental scope

### **Is this target part of an overarching initiative?**

Science-based targets initiative

## **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 projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

|  |  |  |
| --- | --- | --- |
|  | **Number of projects** | **Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked \*)** |
| Under investigation | 20 |  |
| To be implemented\* | 30 | 30000 |
| Implementation commenced\* | 70 | 40000 |
| Implemented\* | 100 | 80200 |
| Not to be implemented |  |  |

## **C4.3b**

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

### **Activity type**

Energy efficiency: Processes

### **Description of activity**

Other, please specify (Energy saving plan in manufacturing)

*2017 energy saving plan in manufacturing plants (all Renault plants worldwide) includes hundreds of small or medium-scale actions such as : removal of over-capacity equipments, optimization of energy efficiency (variable speed pumps or compressors...), reduction of compressed air leaks, switching off equipments outside working hours, lighting optimization etc.).*

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

71000

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

9200000

### **Investment required (unit currency – as specified in CC0.4)**

2100000

### **Payback period**

<1 year

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

6-10 years

### **Comment**

### **Activity type**

Energy efficiency: Processes

### **Description of activity**

Other, please specify (Slovenia plant renovation)

*Slovenia plant renovation: painting process energy recovery, boiler-room renovation, decentralization of process heating needs*

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

3681

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

490000

### **Investment required (unit currency – as specified in CC0.4)**

3094000

### **Payback period**

1-3 years

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

11-15 years

### **Comment**

Slovenia plant renovation: painting process energy recovery, boiler-room renovation, decentralization of process heating needs

### **Activity type**

Energy efficiency: Building services

### **Description of activity**

Lighting

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

5390

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

943000

### **Investment required (unit currency – as specified in CC0.4)**

1386000

### **Payback period**

1-3 years

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

11-15 years

### **Comment**

installation LED lighting in Busan Plant in Korea

### **Activity type**

Energy efficiency: Processes

### **Description of activity**

Heat recovery

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

195

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

17800

### **Investment required (unit currency – as specified in CC0.4)**

70000

### **Payback period**

4 - 10 years

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

6-10 years

### **Comment**

Thermal wheel installation in Valladolid plant, in Spain

## **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 | Approximately 60% 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 EV's or PHEV's. |
| 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 | An internal price has been set for vehicle CO2 emissions reduction (in € per gCO2/km). This price is used as a reference to validate or discard CO2 emissions reduction solutions in future vehicle projects. The amount is of 95 €/g CO2 as the 2021 CAFE regulation. |

## **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**

Range of 100% Electric Vehicles in total group Renault sales

### **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 (Sale of 100% Electric vehicles)

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

1.2

### **Comment**

The calculation above is the part of electric vehicles sales in total world wide sales. How emissions were avoided by a third party : Electric vehicle don't emit any exhaust gaz while rolling. In 2017 Renault remained the best-selling full-electric vehicle (EV) manufacturer in Europe, with 41000 EV.

### **Level of aggregation**

Company-wide

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

Renault is placed among the top manufacturers for the average fuel efficiency of its vehicles sold in the EU market with an average 110,2 g CO2/km (VP UE), well below the legal threshold applicable to EU passenger cars in 2017 (130 g CO2/km). Hence, buying Renault vehicles below 130 g CO2/Km allows a third party to reduce the scope 1 emissions of its own fleet of vehicles.

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

Low-carbon product and avoided emissions

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

Other, please specify (Low emission UE vehicules passengers car)

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

76

### **Comment**

How emissions were reduced by a third party :The EU passenger cars in 2017 sold in 2017 which are below 130 g CO2/km allows a third party to reduce its emissions from scope 1. The calculation is the total UE passengers cars below 130g 's Renault sales in comparison with the toal UE passengers cars sold in UE by Renault.

### **Level of aggregation**

Group of products

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

One of Renault environment objective is to increase the Group’s overall consumption of recycled plastic (by weight) by 50% between 2013 and 2022. 47% of the brand models are composed of more than 12% of recycled plastic which is more than the market average.

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

Low-carbon product and avoided emissions

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

Other, please specify (Reduce use of virgin materials)

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

47

### **Comment**

How: recycling of polypropylene (plastic material): Gaïa (Renault subsidiary) collects bumpers from dismantlers and garages and ensures that they are processed in order to meet the Renault-Nissan Alliance’s technical specifications. Seven grades of polypropylene provided by this recycling network have been listed with the Renault Materials Panel of which three are used for mass production applications and four are currently awaiting approval for vehicle projects. In total, the models which include 12% of recycled materials represent 47% of the total models sold by Renault group

## **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**

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. In 2017, there was a widening of perimeter for scope 1 in the followed target (greenhouse gases emitted during filling air conditioners from building and processes in Europe, which were not reported before ) and 2010 base was revised in order to maintain data comparability from 2010 to 2017.

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

### **Base year start**

January 1 2010

### **Base year end**

December 31 2010

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

595130

### **Comment**

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. In 2017, there was a widening of perimeter of scope 2 in te followed target ( thermal energy purchased included) and 2010 base was revised in order to maintain data comparability from 2010 to 2017.

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

### **Base year start**

January 1 2010

### **Base year end**

December 31 2010

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

595130

### **Comment**

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. In 2017, there was a widening of perimeter of scope 2 in the followed target ( thermal energy purchased included) and 2010 base was revised in order to maintain data comparability from 2010 to 2017.

## **C5.2**

### **(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 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?**

### **Row 1**

### **Gross global Scope 1 emissions (metric tons CO2e)**

674960

### **End-year of reporting period**

<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) uses and produces renewable energy.

## **C6.3**

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

### **Row 1**

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

704277

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

610009

### **End-year of reporting period**

<Not Applicable>

### **Comment**

In Tanger plant, Marocco, the National Office of Electricity and Drinking Water (ONEE) provides the plant with electricity produced from entirely renewable sources, 91% of the plant’s energy needs are as a result met by renewable sources, meaning that the emission of 94 268 metric tons of CO2 was avoided in 2017.

## **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**

Emissions are not relevant

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

No emissions excluded

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

No emissions excluded

### **Explain why the 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 Scope 3 emissions, disclosing and explaining any exclusions.**

### **Purchased goods and services**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

12853847

### **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). Also in 2017 were added the emissions from manufacturing of Group Renault vehicules which are not produced in Renault plants and were subtracted vehicules produced in Renault plants for commercial partners

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

0

### **Explanation**

### **Capital goods**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1361610

### **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 2017 Registration Document, tangible investments represented € 2,221 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 1,14 EUR/GBP in 2017, 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 processbased 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

### **Explanation**

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

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

172545

### **Emissions calculation methodology**

Scope of emissions - The reported emissions cover : (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 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. The emission factors are from IEA and Bilan Carbone® ADEME. The rates of TandD loses are from IEA and the World Bank database.

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

0

### **Explanation**

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**

560990

### **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

### **Explanation**

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1121258

### **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

### **Explanation**

### **Business travel**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

78793

### **Emissions calculation methodology**

Business Travel : A travel company (Carlson Wagon Lit since Nov. 2012) 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, Argentina, Chile 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

### **Explanation**

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.

### **Employee commuting**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

53075

### **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

### **Explanation**

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, calculated

### **Metric tonnes CO2e**

619

### **Emissions calculation methodology**

The upstream leased assets which are not already included into the Scope 1 and Scope 2 emissions of the Renault Group consist only of a few office activities as well as IT server locations. The emissions of the main of these locations (which houses the Corporate IT servers) have been calculated and represented 619 tons CO2 in 2016 i.e. less than 0,002% only of the Group's global scope 3 emissions. These emissions can therefore be considered as not relevant.

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

### **Explanation**

The upstream leased assets which are not already included into the Scope 1 and Scope 2 emissions of the Renault Group consist only of a few office activities as well as IT server locations. The emissions of the main of these locations (which houses the Corporate IT servers) have been calculated and represented 619 tons CO2 in 2016 i.e. less than 0,002% only of the Group's global scope 3 emissions. These emissions can therefore be considered as not relevant.

### **Downstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

590940

### **Emissions calculation methodology**

Transportation and Distribution of sold products (Vehicles logistics only - Excluding the logistics of parts & 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

### **Explanation**

### **Processing of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

Renault products are consumer products (cars and car parts) and are not processed or re-processed any further after they have been sold. Hence, related emissions are not significant and therefore not considered relevant.

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

### **Explanation**

### **Use of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

89344634

### **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**

### **Explanation**

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

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1727965

### **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**

### **Explanation**

### **Downstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

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).

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

### **Explanation**

### **Franchises**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

324792

### **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**

### **Explanation**

### **Investments**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

1602829

### **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%). Avtovaz (Russia), in which Renault held a 64,6% equity share by End-2017, did not disclose any certified CO2 emissions figure, and was therefore not accounted for in the investment emissions category in 2017. 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

### **Explanation**

### **Other (upstream)**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

No other upstream CO2 emissions.

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

### **Explanation**

### **Other (downstream)**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

No other downstream CO2 emissions.

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

### **Explanation**

## **C6.7**

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

Yes

## **C6.7a**

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

27979

## **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**

0.387

### **Metric numerator (Gross global combined Scope 1 and 2 emissions)**

1284969

### **Metric denominator**

vehicle produced

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

3318534

### **Scope 2 figure used**

Market-based

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

0.25

### **Direction of change**

Decreased

### **Reason for change**

Scope 1 and 2 Carbon intensity per unit of vehicule produced decreased by 0,25%, due to emissions reduction activities (see C4.3)

### **Intensity figure**

0.00002186

### **Metric numerator (Gross global combined Scope 1 and 2 emissions)**

1284969

### **Metric denominator**

unit total revenue

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

58770000000

### **Scope 2 figure used**

Market-based

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

7.8

### **Direction of change**

Decreased

### **Reason for change**

The combined scope 1 and 2 carbon intensity per unit of total Revenue decreased by 7,8 % due to emissions reduction activities (see C.4.3).

## **C7. Emissions breakdowns**

## **C7.1**

### **(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?**

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 | 37137 | IPCC Fifth Assessment Report (AR5 – 20 year) |
| CO2 | 637823 | IPCC Fifth Assessment Report (AR5 – 20 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 | 290406 |
| Spain | 108279 |
| Other, please specify (Rest of world (other than France & Spain) | 276275 |

## **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)** |
| Car assembly plants | 354575 |
| Powertrain plants | 68731 |
| Mixed manufacturing plants | 181973 |
| Foundries | 9189 |
| Logistics, Engineering and tertiary sites | 60492 |

## **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 generation 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 (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 614468 | <Not Applicable> | The gross scope 1 transport OEM activities emissions take into account: - Car assembly plants - Powertrain plants - Mixed manufacturing plants - Foundries But it doesn't take into account logistics, Engineering and tertiary sites sites |
| 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 in market-based approach (MWh)** |
| France | 62851 | 62851 | 2481004 | 0 |
| Spain | 146380 | 146380 | 970037 | 0 |
| Other, please specify (rest of the world) | 495046 | 400778 | 2463196 | 134343 |

## **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 emissions (metric tons CO2e)** | **Scope 2, market-based emissions (metric tons CO2e)** |
| Car assembly plants | 363972 | 269704 |
| Powertrain plants | 106571 | 106571 |
| Mixed manufacturing plants | 189011 | 189011 |
| Foundries | 12095 | 12095 |
| Logistics, Engineering and tertiary sites sites | 32628 | 32628 |

## **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 (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 671649 | 577381 | The gross scope 1 transport OEM activities emissions take into account: - Car assembly plants - Powertrain plants - Mixed manufacturing plants - Foundries But it doesn't take into account logistics, Engineering and tertiary sites sites |
| 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**

0.000094

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

78134615

### **Metric denominator**

p.km

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

830794882500

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

101

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

3356747

### **Vehicle lifetime in years**

10

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

15000

### **Load factor**

The load factor 1,65 comes from SBT (Sciences Based Target Initiative). It represents the average number of passengers per vehicle in Europe (Adra, Michaux and André, 2004) 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**

The average level of CO2 emissions is calculated from the CO2 emissions of each new vehicle sold during the year under consideration. All LDV vehicles are taken into account. All countries where new vehicles are sold under the Renault, Dacia or Samsung Motors, Alpine brands are included. Vehicle emissions in use are calculated for a usage of 150,000 km. In Europe, vehicules are approved on WLTP approval since september 2017. The CO2 emissions taken into account for the calculation are the CO2 emissions of each vehicle in the new WLTP homologation (or translated in case of another approval is used). In 2017, CO2 emissions from vehicule usage reached 110.2 g CO2/km (NEDC approval), a rise of 0.7 g CO2/km from previous year. This was primarily due to the structural decrease of the diesel engine share, as diesel engines are more efficient that gasoline engines in terms of CO2 emissions (-6 points in Groupe Renault’s sales mix in Europe in comparison with 2016). However Groupe Renault’s CO2 emission average remains below its regulatory objective, with a difference of -14.9 g CO2/km in 2017, compared with -14.6 g in 2016, due to a 15 kg increase in the Group’s weight factor.

## **C7.9**

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

Increased

## **C7.9a**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Change in emissions (metric tons CO2e)** | **Direction of change** | **Emissions value (percentage)** | **Please explain calculation** |
| Change in renewable energy consumption | 810 | Decreased | 0.06 | In 2017, the energy consumption coming from renewable energies was 17,87% of the total energy consumed by the group (Mwh PCI ), including the renewable parts of national purshased electricity.In 2016, it was 17,81 % of the total energy consumed by the group (Mwh PCI). So the decrease of emissions between the two years due to the augmentation of renewable energy was (0,1781-0,1787)\* (scope 1+ 2 emissions): 810 Teq. The emissions value (percentage) is the change in emission (col 2) divided by sum scope 1 + 2 previous year= (810/1374662)\*100= 0,06 |
| Other emissions reduction activities | 80207 | Decreased | 6 | The projects of 2017 energy saving campaign (listed in C.4.3.b) are estimated to have obtaines an annual CO2e savings (metric tonnes CO2e) of 80207 (col2) The emission value calculation is the change in emission (col2) divided by (scope 1+2 previous year) = (80207/1374662)\*100 = 6 |
| Divestment | 0 | No change | 0 | No change |
| Acquisitions | 0 | No change | 0 | No change |
| Mergers | 0 | No change | 0 | No change |
| Change in output | 54986 | Increased | 4 | The production volume rose by 6% from 3128640 vehicles in 2016 to 3318534 in 2017. 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 \* 6% = 4% additional energy consumption and CO2 emissions due to the change in output. The change of emission is equal to 4% of scope 1 & 2 previous year : 0,04 \* 1374662 = 54986 Teq. The percentage calculation is the change in emission (col 2) divided by scope 1&2 previous year : (54986/1374662)\* 100 = 4 |
| Change in methodology | 41857 | Increased | 3 | The carbonation factors for electricity used in previous years were given for electricity and steam together by IEA. The IEA has changed its methodology and now gives factors solely for purchased electricity. The average of carbonation from 2016 to 2017 increased from 335 to 349 in average (average of the electric mix of the countries where Groupe Renault has manufacturing plants. The calculation was done as follow: average of the electricity mix used in 2017\* total Electricity consumption 2017 - average of electricity mix of 2016 \* total electricity consumption in 2017 = (349 x 2989770)- (335 x 2989770). The percentage was obtained by dividing this change in emissions (metric tons CO2e) by total emission of previous year scope 1+2 x 100 = (41857/1374662) X 100 |
| Change in boundary | 0 | No change | 0 | No change in boundary |
| Change in physical operating conditions | 0 | No change | 0 | No change |
| Unidentified |  | <Not Applicable> |  | No change |
| Other | 40707 | Increased | 3 | The carbonation factors for electricity used in previous years were given for electricity and steam. The IEA has changed its methodology and now gives factors solely for purchased electricity. The average of carbonation from 2016 to 2017 increased from 335 to 349 in average (average of the electric mix of the countries where Groupe Renault has facilities. The calculation was done as follow: average of the electricity mix used in 2017\* total Electricity consumption 2017 - average of electricity mix of 2016 \* total electricity consumption in 2017. The percentage was obtained by dividing this result by total emission of scope 1+2 |

## **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 undertakes this energy-related activity** |
| 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 MWh** |
| Consumption of fuel (excluding feedstock) | LHV (lower heating value) | 16410 | 2760210 | 2776620 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 134343 | 2855428 | 2989771 |
| Consumption of purchased or acquired heat | <Not Applicable> | 84478 | 43163 | 127641 |
| Consumption of purchased or acquired steam | <Not Applicable> | 0 | 20205 | 20205 |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 0 | <Not Applicable> | 0 |
| Total energy consumption | <Not Applicable> | 235231 | 5679006 | 5914237 |

## **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 steam | Yes |
| 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**

2702708

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

0

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

2702708

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

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

<Not Applicable>

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

<Not Applicable>

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

Liquefied Petroleum Gas (LPG)

### **Heating value**

LHV (lower heating value)

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

52712

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

0

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

52712

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

0

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

<Not Applicable>

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

<Not Applicable>

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

Fuel Oil Number 2

### **Heating value**

LHV (lower heating value)

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

4790

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

4790

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

0

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

0

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

<Not Applicable>

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

<Not Applicable>

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

Wood Waste

### **Heating value**

LHV (lower heating value)

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

16410

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

0

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

16410

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

0

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

<Not Applicable>

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

<Not Applicable>

## **C8.2d**

### **(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

### **Fuel Oil Number 2**

### **Emission factor**

0.075

### **Unit**

metric tons CO2 per GJ

### **Emission factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Liquefied Petroleum Gas (LPG)**

### **Emission factor**

0.064

### **Unit**

metric tons CO2 per GJ

### **Emission factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Natural Gas**

### **Emission factor**

0.057

### **Unit**

metric tons CO2 per GJ

### **Emission factor source**

French law : Decree oct. 31, 2012

### **Comment**

### **Wood Waste**

### **Emission factor**

0

### **Unit**

metric tons CO2 per GJ

### **Emission factor source**

Documentation of the emission factors of the Carbon Base ® ADEME - Version 11.0.0 - Tuesday, November 18, 2014

### **Comment**

## **C8.2e**

### **(C8.2e) 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 | 121617 | 4790 | 116828 | 0 |
| Heat | 2632365 | 2632365 | 16410 | 16410 |
| Steam | 139465 | 139465 | 0 | 0 |
| Cooling | 0 | 0 | 0 | 0 |

## **C8.2f**

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

### **Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities ( e.g. green tariff), supported by energy attribute certificates

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

Wind

### **MWh consumed associated with low-carbon electricity, heat, steam or cooling**

134343

### **Emission factor (in units of metric tons CO2e per MWh)**

0

### **Comment**

Documentation of the emission factors of the Carbon Base ® ADEME - Version 11.0.0 - Tuesday, November 18, 2014

## **C-TO8.4**

### **(C-TO8.4) Provide any efficiency metrics that are appropriate for your organization’s transport products and/or services.**

### **Activity**

Light Duty Vehicles (LDV)

### **Metric figure**

1.71

### **Metric numerator**

MWh

### **Metric denominator**

Production: Vehicle

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

5687404

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

3318534

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

0.94

### **Please explain**

Given the high number of engines and gearboxes manufactured for partners, for the calculation of the MWh/veh ratio, powertrain plants consumption is adjusted pro rata to the total number of vehicles manufactured by the Group. This figure is published in Renault registration document. In 2017 this metric decrease of 6% due to all projects on energy consumption achieved in 2017. (C.4.3)

### **Activity**

Light Duty Vehicles (LDV)

### **Metric figure**

124.9

### **Metric numerator**

Other, please specify (g CO2)

### **Metric denominator**

Use phase: Vehicle.km

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

370660762

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

2966507

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

1.01

### **Please explain**

This figure 's scope is worldwide passenger's car. Light commercial vehicules are not included. It is published in Renault's registration document. In 2017 there was an increase of this metric due to the structural decrease of the diesel engine share, as diesel engines are more efficient that gasoline engines in terms of CO2 emissions (-6 points in Groupe Renault’s sales mix in Europe in comparison with 2016). However Groupe Renault’s CAFE remains below its regulatory objective,

## **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**

40939

### **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 during use . They can also significantly reduce the greenhouse gas emissions associated with transportation. In 2017, the Group recorded a new 40% increase on 2016 in its worldwide sales of electric vehicles, to 40,939 units.

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

### **(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?**

### **Activity**

Light Duty Vehicles (LDV)

### **Investment start date**

January 1 2017

### **Investment end date**

December 31 2022

### **Investment area**

R&D

### **Technology area**

Electrification

### **Investment maturity**

Large scale commercial deployment

### **Investment figure**

18000000000

### **Low-carbon investment percentage**

41-60%

### **Please explain**

18 billions euros Rand D investments 2017 2022 giving access to Alliance technologies mainly focus on climate related scope: • Additional synergies expected from electrification, connectivity and autonomous technologies • 12 pure electric models to be launched, utilizing common EV platforms and components • 40 vehicles to be launched with autonomous drive (AD) technology • To become an operator of robo-vehicle ride-hailing services

## **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 and/or Scope 2 emissions and attach the relevant statements.**

### **Scope**

Scope 1

### **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**

[Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf)

### **Page/ section reference**

In the 3 pages attached from Renault registration document 2017 p 240-243, see 2nd page (P241) foot note (1)

### **Relevant standard**

ISAE3000

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

100

### **Scope**

Scope 2 location-based

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Reasonable assurance

### **Attach the statement**

[Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf)

### **Page/ section reference**

P241 foot note (1) Renault registration document 2017 p 240-243

### **Relevant standard**

ISAE3000

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

100

### **Scope**

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**

[Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf)

### **Page/ section reference**

P241 foot note (1) Renault registration document 2017 p 240-243

### **Relevant standard**

ISAE3000

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

100

## **C10.1b**

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

### **Scope**

Scope 3- all relevant categories

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Attach the statement**

[Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf)

### **Page/section reference**

P241 foot note (1) Renault registration document 2017 p 240-243

### **Relevant standard**

ISAE3000

## **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  *All figures from our owned manufacturing plants, tertiary sites, logistic sites and distribution sites wich are disclosed in CDP questionnary are validated by third party. It includes energy consumption and used* | ISAE3000 | All Renault registration document is checked by third party  [Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf) |
| C6. Emissions data | Other, please specify (All environment figures, as waste) | ISAE3000 | All Renault registration document is checked by third party  [Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.pdf) |
| C1. Governance | Other, please specify (all statements from Registration documen) | ISAE3000 | All Renault registration document is checked by third party  [Attestation assurance.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/3F213DbA5UOcHLbyMPDqKw/Attestationassurance.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 systems in which you participate.**

### **EU ETS**

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

0.55

### **Period start date**

January 1 2017

### **Period end date**

December 31 2017

### **Allowances allocated**

647015

### **Allowances purchased**

77011

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

395877

### **Details of ownership**

Facilities we own and operate

### **Comment**

## **C11.1d**

### **(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

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).

Complementary explanation on point 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 Slovenia plant renovation described in C.4.3.b for which investment required was 3094000€. 2) An internal price has been set for vehicle CO2 emissions reduction (95 € per gCO2). 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)**

95000000

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

The approache 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.

### **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 Slovenia plant renovation described in C.4.3.b for which investment required was 3094000€. - 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.

## **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

*The evaluation is sent to all supplier (100%). 62.1% of volume of sales are analysed*

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

100

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

78.8

### **% Scope 3 emissions as reported in C6.5**

6

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

Groupe Renault has mapped the risks of suppliers and subcontractors with whom an established commercial relationship exists, under the law on the duty of vigilance. The concept of “established commercial relationship” is set out in Articles L. 420-2 and L. 442-6 of the French Commercial Code. In terms of risks relating to human rights and fundamental freedoms, health and safety of persons, and the environment, two areas have been singled out: - Risks relating to families of purchases: - Parts. The families of purchases have been classified according to risks, - 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; - Country risks. The mapping used was 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 enabled supplier and subcontractor sites to be ordered according to four levels of criticality: “ low ”, “ medium ”, “ high ”, “ very high ”. Evaluation procedures Depending on the level of criticality, an evaluation in several stages is organized For facilities producing parts or for services, the evaluation takes place in several stages when the criticality has been judged as high or very high. The evaluation is performed by an external service provider. - If the risk is considered to be low, there will not be any additional investigation, - If the risk is considered to be high or very high, audits will be carried out on the ground for the sites concerned.

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

Supplier performance is crucial to Groupe Renault’s business. Any failure on the part of suppliers, whether in terms of the quality of parts delivered, logistics problems or a deterioration in their financial situation, can have a considerable impact both on production at Renault plants and on the smooth running of projects. Purchasing processes are, therefore, a strategic issue for the Company and, in a number of significant areas, key to its long-term future: - measuring and managing suppliers’ achievement of QCD (Quality, Cost, Delivery) targets; - supporting the implementation of the Purchasing strategy devised in accordance with the Groupe Renault strategic guidelines; - selecting suppliers and developing a robust and sustainable relationship that is of mutual benefit, while still ensuring Groupe Renault maintains its competitive edge; - contributing to the Groupe Renault brand image by supplying highquality goods and services. Groupe Renault traditionally measures the CSR performance of its suppliers through three main criteria: - the percentage of the volume of parts, services and equipment purchased that are the subject of CSR evaluation; - 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; - the percentage of the volume of parts purchased covered by ISO 14001 certification.

### **Comment**

Concerning the mitigation of risks and the prevention of serious harm within suppliers and subcontractors, Groupe Renault relies on: - a central team responsible for providing support to suppliers and subcontractors worldwide; - an Internet platform for informing the purchasing teams, as well as the suppliers and subcontractors, of their CSR performance, in which the criteria of the law on the duty of vigilance are included; - purchasing processes that include CSR criteria, including the criteria of the law on the duty of vigilance, in the process of selecting suppliers and subcontractors; - a CSR Framework Agreement covering CSR standards and documents: - Global Framework Agreement: (...) - Renault-Nissan Guidelines on “Corporate Social Responsibility (CSR)” at suppliers: distributed to all suppliers and subcontractors of Groupe Renault, this document summarizes expectations concerning suppliers and subcontractors in matters of safety and quality, human and labor rights, the environment, compliance and non-disclosure of information. The Group asks its suppliers and subcontractors to undertake to comply with these guidelines. They are also requested to use them with their own suppliers, - Renault Green Purchasing Guidelines: Distributed to all suppliers of Groupe Renault, this document describes the requirements in matters of environmental management, policies on chemicals and recycling, - Renault-Nissan Purchasing Way (..)

## **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

### **Size of engagement**

4

### **% Scope 3 emissions as reported in C6.5**

1

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

Strategy for prioritizing engagements with customers : Engagements are prioritized on the basis of - the number of customers they can reach and - their efficiency regarding CO2 emissions reduction Measure of success : Satisfaction rate from eco-driving trainings ;

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

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.

### **Type of engagement**

Other, please specify ( eco-driving assistance solution)

### **Details of engagement**

<Not Applicable>

### **Size of engagement**

100

### **% Scope 3 emissions as reported in C6.5**

47

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

Fuel consumption actually observed by the average driver can diverge from the certified values, with differences possibly exceeding 20% depending on the type of driving. This is due to certified consumption values being calculated for standardized cycles that do not reflect all driving styles (more or less aggressive) or all driving conditions (no heating or air conditioning, fluid urban and suburban traffic). Renault offers eco-driving assistance solutions in order to close this gap, so that the actual consumption noted by its customers is as close as possible to the certified values. This was the impetus behind the creation of Renault’s Driving ECO2 program in 2008, which aims to offer vehicleembedded driving aids to customers, as well as training services in order to assist them in reducing their fuel consumption through eco-driving. Changing driver behaviors through eco-driving is an avenue likely to reduce energy consumption (gasoline, diesel or electricity). Depending on driving style, savings of up to 25% could be achieved. Fuel consumption actually observed by the average driver can diverge from the certified values, with differences possibly exceeding 20% depending on the type of driving. This is due to certified consumption values being calculated for standardized cycles that do not reflect all driving styles (more or less aggressive) or all driving conditions (no heating or air conditioning, fluid urban and suburban traffic). Renault offers eco-driving assistance solutions in order to close this gap, so that the actual consumption noted by its customers is as close as possible to the certified values. This was the impetus behind the creation of Renault’s Driving ECO2 program in 2008, which aims to offer vehicleembedded driving aids to customers, as well as training services in order to assist them in reducing their fuel consumption through eco-driving. Changing driver behaviors through eco-driving is an avenue likely to reduce energy consumption (gasoline, diesel or electricity). Depending on driving style, savings of up to 25% could be achieved.

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

Surveys, conducted both internally and externally to better understand customers’ expectations of embedded eco-driving aids, led to the identification of four driver profiles. 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. Deployed since 2012, these embedded eco-driving aids are now 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. 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 dialogue 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 improve the gains achieved under real driving conditions

## **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. | We support 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

### **Status**

Complete

### **Attach the document**

[RD renault 2017 chp 2.6 short.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/9XsjoByPhk2Eybe3VWDobA/RDrenault2017chp2.6short.pdf)

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Other, please specify (registration document: figures and text)

## **C14. 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.**

## **C14.1**

### **(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

|  |  |  |
| --- | --- | --- |
|  | **Job title** | **Corresponding job category** |
| Row 1 | VP Strategic Environmental Planning | Environment/Sustainability manager |