**Honda Motor Co., Ltd. - Climate Change 2019**

## **C0. Introduction**

## **C0.1**

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

Honda Motor Co., Ltd., operates under the basic principles of “Respect for the Individual” and “The Three Joys”—expressed as “The Joy of Buying,” “The Joy of Selling” and “The Joy of Creating.” Accordingly, “The Three Joys” express our belief and desire that each person working in or coming into contact with our company, directly or through our products, should share a sense of joy through that experience. In line with these basic principles, Honda has remained on the leading edge by creating new value and providing products of the highest quality at a reasonable price in pursuit of worldwide customer satisfaction, ever since its establishment in 1948. In addition, the Company has conducted its activities with a commitment to protecting the environment and enhancing safety in a mobile society.

History and Development of the Company

Honda Motor Co., Ltd. is a limited liability, joint stock corporation incorporated on September 24, 1948 under the Commercial Code of Japan as Honda Giken Kogyo Kabushiki Kaisha. It was formed as the successor company to the business of an unincorporated enterprise established in 1946 by the late Soichiro Honda to manufacture motors for motorized bicycles. Honda develops, produces, and manufactures a variety of motor products, ranging from small general-purpose engines and scooters to specialty sports cars that incorporate Honda’s highly efficient internal combustion engine technology.

Motorcycle Business:

After World War II, the use of auxiliary engines mounted on bicycles spread quickly in Japan, making it easier for people to move around and transport goods. This was the starting point of manufacturing for Honda. Ever since, Honda has given shape to wide-ranging joys and the fun of riding on two wheels, through such products as the Super Cub, which reached 100 million units milestone in 2017. In September 2014, Honda's cumulative worldwide motorcycle production reached the 300 million-unit milestone.Making motorcycles with the basic goal of bringing joy and satisfaction to people serves as the starting point of Honda. Honda will continue offering products which fulfill the needs of its customers around the world.

Automobile Business:

Honda launched the T360 mini truck in 1963 to become the last major domestic automaker to enter the Japanese automotive market. A second model, the S500 sports car, then followed in the T360’s footsteps to form a pair of vehicles equipped with Japan’s first DOHC automobile engine and to make Honda’s debut with a full complement of our distinctive innovation. Then in 1964, Honda took up the challenge of Formula One with the intent of honing Honda’s leading edge technology at the pinnacle of racing.Ever since, Honda’s automobile business has been filled with a challenging spirit for creating new value in every area including technology development and manufacturing. And now following Honda's 2030 Vision, Honda will strive to electrify two-thirds of global automobile unit sales in 2030.

Power Products Business:

Honda Power Products operations started with the desire to apply engine technologies in ways useful for people’s daily lives and work situations. Beginning in 1953 with a general-purpose engine developed for agricultural equipment, Honda has provided an accumulated total of more than 100 million a multitude of power products including tillers, generators, snow throwers, outboard engines, and lawnmowers to customers worldwide.Honda is also developing and producing electrified products useful in many facets of life, delivering new value such as the Miimo robotic lawnmower, and the LiB-AID E500 new era portable power source.Honda will continue to provide customers around the world with power products that are familiar and useful, spreading the “joy of usefulness” by maximizing and pursuing the possibilities of its engine and electrification technologies.

HondaJet:

Honda continues to take on new challenges to deliver to its customers the joy of personal mobility.While Honda has developed a range of products for land and sea—including cars, motorcycles, and outboard engines—since its foundation the company has had a vision of taking personal mobility to the skies. In order to bring this dream to life, Honda began research into aircraft in 1986, over 30 years after the company's foundation.Under Honda's user-first philosophy, we have refined our technology to deliver unprecedented new value. A compact, lightweight, small-sized business jet with ample space and superior comfort—we believed such an aircraft would offer faster, more comfortable, and fuel-efficient flight, increasing convenience while reducing costs and environmental impact. We started by rethinking conventional aircraft design, and developed our air crafts with our own unique technology. HondaJet—redefining the compact business jet. Casting its eyes to the skies, Honda continues to take on new challenges to bring its customers the joy of personal mobility.

## **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 | avril 1 2018 | mars 31 2019 | No | <Not Applicable> |

## **C0.3**

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

Argentina

Australia

Austria

Belgium

Brazil

Canada

Chile

China

Czechia

Denmark

Estonia

Ethiopia

Finland

France

Germany

Hungary

India

Indonesia

Italy

Japan

Malaysia

Mexico

Netherlands

New Zealand

Nigeria

Norway

Pakistan

Peru

Philippines

Poland

Portugal

Republic of Korea

Russian Federation

Singapore

Slovakia

South Africa

Spain

Sweden

Taiwan, Greater China

Thailand

Turkey

Ukraine

United Arab Emirates

United Kingdom of Great Britain and Northern Ireland

United States of America

Venezuela (Bolivarian Republic of)

Viet Nam

## **C0.4**

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

JPY

## **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.**

Financial control

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

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

Light Duty Vehicles (LDV)

## **C1. Governance**

## **C1.1**

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

Yes

## **C1.1a**

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

|  |  |
| --- | --- |
| **Position of individual(s)** | **Please explain** |
| Director on board | Honda recognizes that environmental issues such as climate change issues, which require global responses, are material issues that impact Honda’s business operations. Based on this recognition, the Environmental Committee was established in 1991, chaired by the President and CEO and comprised of members of company management Director on Board. From 2018, environmental issues have been incorporated as items to be considered at the Sustainability Strategy Committee. for integrated discussions under a single committee. Medium- and long-term environmental policies and plans at the global level are formulated at the Meeting of the World Environment and Safety Strategy Committee on the basis of company-wide direction and medium and long-term business plans. All committee members are involved in the meeting’s decision-making, and among all member, Director on Board is responsible for all matters including achievement of climate related targets. |

## **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 – all meetings | Reviewing and guiding strategy  Reviewing and guiding major plans of action  Reviewing and guiding risk management policies  Reviewing and guiding business plans  Setting performance objectives  Monitoring implementation and performance of objectives  Monitoring and overseeing progress against goals and targets for addressing climate-related issues | The Board of Directors, with all directors participating, oversees all corporate initiatives, including climate-related challenges. Sustainable Strategy Committee discuss issues related to sustainability including climate-related issues, and monitor to the Board of Directors with strategy, targets, and current status of achievement of them. CEO has final responsibility to approve strategy and targets. Taking into consideration the key challenges examined here, Honda determines corporate strategies through the Executive Council and Board of Directors. By reviewing and guiding strategy, the the meeting of the Board of Directors breaks them down into policies and measures for business and functional operations for actual execution. |

## **C1.2**

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

|  |  |  |
| --- | --- | --- |
| **Name of the position(s) and/or committee(s)** | **Responsibility** | **Frequency of reporting to the board on climate-related issues** |
| Chief Executive Officer (CEO) | Both assessing and managing climate-related risks and opportunities | Quarterly |

## **C1.2a**

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

i. Where in the organizational structure this position(s) and/or committee(s) lie;

The President and CEO of Honda has a highest responsibility for climate-related issues below board level. Various committee including Sustainability Strategy Committee, which is an annual non-financial committee that reports on specific responses and progress toward achieving climate-change challenges and targets, includes the President and CEO and other C-suites officers as members. CEO is a chair of Sustainability Strategy Committee, and take final responsibility of climate-related issues below board level.

ii. A rationale of why responsibilities for climate-related issues have been assigned to the President and CEO;

Since climate-change issues have a major impact on the performance of Honda as a whole, issues including planning strategy, setting emission reduction targets, planning how to achieve the targets, monitoring the progress, and response when we couldn’t meet the targets are discussed and agreed in Sustainability Strategy Committee and chaired by the President and CEO. Meeting climate-related regulations of various market is a basis for our sales, and is material issue to our business.

iii. Company specific responsibilities of President and CEO with regard to assessment and monitoring of climate-related issues.

President and CEO is responsible for reporting the conclusion of the Sustainability Strategy Committee to the board. Through this Committee, we identify the challenges in realizing the long-term vision of the Company, referring to the expectations and demands of key stakeholders recognized through dialogue, and deliberate on material issues at the management level, including verifying progress of response and implementation. Taking into consideration the key challenges examined here, Honda determines corporate strategies through the Executive Council and Board of Directors. Then the Company breaks them down into policies and measures for business and functional operations and subsidiaries for actual execution. In terms of the progress of Honda’s environmental initiatives and the themes applicable worldwide, the Corporate Planning Supervisory Unit collects information from Regional Operations and reports it at the Meeting of the Sustainability Strategy Committee. The Company is striving to continuously enhance environmental management through the reflection of the above information in the medium-term business plan and policy for the following term and the implementation of the plan-do-check-act (PDCA) cycle by each Regional Operation and environmental division.

## **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 (do not include the names of individuals).**

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

Board Chair

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Emissions reduction target

### **Comment**

CEO has variable compensation related to this KPI (emission reduction). Honda has decided to introduce a stock compensation scheme for Directors and Operating Officers of the Company which reflects ESG perspectives as one of the non-financial factors to decide performance coefficient. (Although it is not disclosed, the KPI mentioned above has an influence on the coefficient through an SRI indicator which takes the KPI into account.) Please refer to the information at the following link for the outline of the scheme: http://world.honda.com/content/dam/site/world/investors/cq\_img/library/filings/CY2018\_20180515\_TSEfiling\_e.pdf (“Formula for calculating Share Delivery Points” on page 4 refers to the relevant information).

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

Board/Executive board

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Emissions reduction target

### **Comment**

Senior management have variable compensation related to this KPI (emission reduction). Honda has decided to introduce a stock compensation scheme for Directors and Operating Officers of the Company which reflects ESG perspectives as one of the non-financial factors to decide performance coefficient. (Although it is not disclosed, the KPI mentioned above has an influence on the coefficient through an SRI indicator which takes the KPI into account.) Please refer to the information at the following link for the outline of the scheme: http://world.honda.com/content/dam/site/world/investors/cq\_img/library/filings/CY2018\_20180515\_TSEfiling\_e.pdf (“Formula for calculating Share Delivery Points” on page 4 refers to the relevant information).

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

All employees

### **Types of incentives**

Recognition (non-monetary)

### **Activity incentivized**

Emissions reduction project

### **Comment**

Honda holds the Green Conference annually in Japan to recognize excellent environmental initiatives and to share results of good efforts. Honda Green Conference consists of conferences by domain such as Production or R&D that are held annually, and a company-wide conference held every three years. At present, recognition mainly focuses on CO2 reduction in real terms. These conferences allow entry not just by Honda Group companies in Japan but also by suppliers that do not belong to the Honda Group. At the Green Conference, some of high-ranking winners also receive extra monetary prizes.

## **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 | 0 | 1 | Honda foresees and manages company-wide targets and evaluates the progress and experiences of individual achievements annually. |
| Medium-term | 1 | 3 | Honda sets targets for the medium term as a short-term basis, implements forecast and actual manage of three-year experiences, and evaluates them. |
| Long-term | 3 | 33 | Honda sets targets for long-term business strategies (2030, 2050, etc.) that are the basis of short-and medium-term business strategies, Indicates the desired direction. |

## **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 | Honda's climate-change risk-management systems cover all operations around the world (Japan, North America, South America, Europe, Asia-Pacific and China). |

## **C2.2b**

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

<How climate-related risks are identified and assessed at a company level>

The scope of managing climate-change risks and opportunities includes direct physical risks and opportunities across Honda, as well as indirect risks due to changes in regulator and social trends.

Honda considers climate-change issues as material, therefore, we have processes to report global climate-change risks and opportunities through the Sustainability Strategy Committee to the board, including the CEO, and to obtain approval from the board on potential responses.

<How climate-related risks are identified and assessed at asset level >

Honda uses the functions of six regional headquarters, motorcycles, automobiles, and power products business divisions to collect information that could be risks and opportunities for our customers. This includes specific extreme weather events that can affect facilities in specific regions.

<How Honda defines substantive financial or strategic impact on your business>

The main evaluation criteria in our company-wide risk assessment including climate change are as follows:

1. Direct financial impact on Honda's business

2. Time when risks may be expected to emerge

3. Whether risks are considered opportunities for Honda

4. If so, how they have impact on Honda's business?

It is decided that The Executive Committee deliberates on the recognition of the problem and its response as a serious effect when exceeding the decided amount and requirements.

## **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 | As Honda operates around the globe, changes in regulations on emissions, fuel efficiency, and other climate-related issues in each country could negatively impact our business, financial position, and performances. For example, we are required a line up of automobiles in North America that meet GHG and CAFE regulations. If we are not able to meet these regulations in North America, where we operates in Ohio and Alabama and which accounts for about 50% of our sales, will get a great financial impact. For this reason, we monitor emission regulations in North America, China, EU and Japan and how we meet their requirements and reflect it in our risk assessment. |
| Emerging regulation | Relevant, always included | Honda's business, financial position and performances may be negatively impacted by changes in global powertrain electrification and new climate-related regulations. For example, in China, a new regulation on powertrain electrification (NEVs) will be in effect in 2019. If we won’t be able to procure enough batteries or our R&D won’t go well, we will not be able to sell our mainstream products, which will have a significant financial impact on China, a major Asian base that accounts for approximately 22% of our sales. For this reason, we monitor regulatory trends in North America, China, EU and Japan in advance and how we will be able to meet the requirements and reflect them in our risk assessment. |
| Technology | Relevant, always included | Global climate-change regulations may negatively impact our business, financial position, and performances, therefore, we face an urgent need to develop technologies to powertrain electrification based on social trends. Honda has developed external power output devices for fuel cell vehicles and hydrogen stations and is going to seize business opportunity relating to electrification If we can’t achieve this, there will be a reduction in our automobiles' market share, which accounts for about 70% of our sales of products, an increase in costs due to procurement of technologies from other companies, and operational risks due to financial risks and the inability to procure components. For this reason, we monitor the regulatory changes in North America, China, EU and Japan and reflect them in our risk assessment. |
| Legal | Relevant, always included | Honda manufactures automobilies and also manufactures internal combustion engines. While each government has issued directions for electrification, as exemplified by the regulation of electrification, Honda also has other options such as low carbonization (such as hydrogen) as an option. This delayed development of technologies such as hydrogen may result in a high percentage of automobiles emitting greenhouse gas emissions, in which case there is the risk of litigation charging for responsibility for climate change. Though we have not yet sued, in order to prevent lawsuits, we regularly check trends in risks of litigation in each market and how we meet their requirements, and reflect them in our risk assessment. |
| Market | Relevant, always included | Honda operates its businesses worldwide, including in Japan, North America, Europe and Asia. Long-term changes in consumers’ preference and changes in fuel prices in these markets could effect to a decline in demand for motorcycles, automobiles, and power products, which account for 90% of our total sales. As this could negatively impact our performance, we make effort to mitigate risks by assessing changes in the values and markets of our customers in each country. For this reason, we monitor trends (fuel prices and consumers’ preferences) in our major markets (North America, China, EU and Japan) and reflect them in our risk assessment. |
| Reputation | Relevant, always included | One of the key elements of corporate sustainability is trust and support from our customers and the community surrounding Honda’s operations. If we don’t address climate change issues, our brand image may be damaged, resulting in negative impacts on our business activities performance. If our brand image is totally damaged, it will have a significant financial impact on all our products, including automobiles, motorcycles, and power products, which account for 90% of total sales. So we interview some investors in Europe and the US and ask their views on corporate response on climate change and reflected in our risk assessment. |
| Acute physical | Relevant, always included | In order to minimize the effect on business in event of large-scale natural disasters, infectious diseases, etc., Honda assessed the risks of these events and established business continuity plans (BCPs). If these extreme weather events exceeded our expectations, our business, financial position, and performances may get negative impact from them. For example, a flood happened in Thailand in 2011 stopped the operation of an automobile plant for one month. So, our project member assigned from each operation division collect risk information from local governments and brokers before we build a new plant or relocation and reflect it to our risk management. |
| Chronic physical | Relevant, always included | Increase in average temperature due to climate change may have negative impact on our products. For example, according to some research, if the use of air conditioners for automobiles to cool the interior due to the rise of average temperature, it may increase energy consumption of vehicles by about 10%. As a result, product value, such as cruising range and fuel efficiency, may be reduced and business risks may increase. This may have a negative effect on Honda’s products, which are highly regarded for fuel efficiency in North America. So we monitor the results of actual fuel efficiency evaluation in major markets and reflect them in our risk assessment. |
| Upstream | Relevant, always included | As Honda cannot continue its business without the supports of suppliers, we believe that the business risk of suppliers is directly linked to the commercial risk of Honda. Considering the occurrence of similar events in the future, such as floods in Thailand in the past, for example, all 8,000 suppliers with which transactions have been conducted are considered to have operational risks due to the procurement of supplier parts. For example, in Thailand, where we produce automobiles had been damaged by the flood in 2011, which caused four week delay in delivering our products to customers. So, we ask our suppliers to provide risk information provided by local governments and brokers and reflect it to our risk management. |
| Downstream | Relevant, always included | Honda understands that we are going to face a drastic shift in components used in vehicles when the transition of powertrain electrification goes on. There might be financial risks if, for example, new regulations to impose manufacturers to take responsibility of their product after their use are established globally because electrified vehicles uses lots of metal materials including rare metals for batteries. Then, Honda might be required to collect vehicles, which accounts for approximately 70% of product sales, and this could have a significant financial impact. For this reason, we monitor procurement status of rare metals (availability, cost and so on) and reflect them in our risk assessment. |

## **C2.2d**

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

Honda uses the functions of six regional headquarters, motorcycles, automobiles, and power products business divisions to collect information twice a year that could be risks and opportunities for our customers. In addition to the information collected by functional headquarters (production-related, manage-related, etc.), we also collect information worldwide.

Our risk management have a process to reports on risks and opportunities from a global perspective through the Sustainability Strategy Committee to the Board of Directors, including the President and CEO, and to get approval by the Board of Directors on potential responses.

At a regional levels, risks and opportunities toward 2030 are reported to the head of each regional headquarter, who is the chair of the Regional Environment Committee, or to the environmental representative of each business site.

At a company-wide level, the Sustainability Strategy Committee conducts risk assessments.

Transitional and physical risks and opportunities identified in this process include as bellows.

-Our sales may decrease if we can’t meet emission reduction requirements in Japan, US, China and EU. But on the other hand, if we can develop and deliver low-carbon vehicles, more customers may choose our products and we may increase our sales. So, we set our vision of "Leading the Realization of a Carbon-Free Society," which is set forth in the 2030 Vision, set a target to electrify two thirds of our vehicles by 2030, and make every effort to achieve this target.

-In 2011, our operational sites in Thailand shut down due to floods caused by extreme weather events. In order to prevent such a situation, Honda is strengthening disaster-prevention measures at its operating bases and strengthening its supply system by diversifying its supply chain, i.e. monitoring parts provided by only a few suppliers and seek ways to solve this concentration. We believe that this enhances our resilience to climate change and may leads to opportunity if we can build a robust operating system.

As such, significant risks and opportunities are reported to the Sustainability Strategy Committee, including responses toward them, and discussed and approved.

## **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**

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

### **Company- specific description**

Honda is exposed to the risk of penalties and reputational risk associated with fuel economy regulations for automobiles in various countries and regions around the world. A partial list of anticipated risks is as follows: United States: Regarding GHG regulations for model years 2017 to 2025, a new agreement was reached on tougher fuel economy regulations to reduce the average fleet emissions in 2016 from 250 grams/mile (35.5 mpg) to 163 grams/mile (54.5 mpg), representing an annual reduction of approximately 4%. Europe: The EU has decided to require further reduction to 95 g/km or less by 2021. Japan: The introduction of tougher CAFE regulations for 2020 was also decided upon. China: The fourth phase for strengthening fuel economy regulations is going to be in effect in 2020. Other regions and countries: Fuel economy regulations have also been strengthened in other regions and countries. These trends are constantly monitored. Automobiles account for approximately three quarters of Honda’s sales revenue. More than 80% of these revenues come from the regions mentioned above, where strict regulations are being enforced.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

1920000000

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

<Not Applicable>

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

<Not Applicable>

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

On the assumption that Honda falls short of CAFE standards by 0.1 mpg in the United States in 2015 with sales remaining at the 2010 level of 1.23 million units, the penalty could amount to approximately 6.8 million dollar. Likewise, assuming a shortfall of 3.0 g/km from the mandated level of CO2 emissions in Europe in 2015 with sales remaining at the 2010 level of 198,000 units, the penalty could amount to approximately 9 million euro.

### **Management method**

To be able to comply with emission regulations of various countries, Honda continues our efforts to make improvements in fuel efficiency above the level needed by the regulations. Honda R&D Automobile Operations, Certification & Regulation Compliance Division coordinate research on trends in fuel economy regulations in Europe, the U.S, China, Japan, and other areas of the world, and publish the results as regulatory information to be used Honda group Meetings are regularly held to provide a forum for sharing the contents and interpretation of new regulations and for discussing their responses. For example, as a result of our continued research effort, we have succeeded to develop direct injection engines for gasoline-driven vehicles including "VEZEL", "STEPWGN", and "CRV" , which are equipped with the newly-developed 1.5-liter VTEC TURBO direct injection engines for gasoline-driven vehicles. We also installed a Sport hybrid i-MMD engine on “CR-V”, “Odyssey” and “Accord” to achieve excellent fuel efficiency. For the cost of management, Honda appropriated 704 billion yen for the fiscal year ending March 31, 2019 as the R&D costs for automobiles. The expenditure covers the R&D cost of hybrid technology for automobiles, improvement in the efficiency of internal combustion engines, and related efforts for the purpose of responding to this risk. We assumed this amount will continuously cost to manage this risk.

### **Cost of management**

704000000000

### **Comment**

### **Identifier**

Risk 2

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

Supply chain

### **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**

Increased insurance claims liability arising from climate-related impacts

### **Company- specific description**

More frequent occurrence of abnormal weather such as localized torrential rain may lower the operation rate of Honda’s plants as well as suppliers’ plants. Because the base of the supply chain for auto manufacturing is very broad in general, there could be a situation in which a Honda production facility is forced to lower its operation rate even when it is not directly affected. For example, production facility in Thailand had serious damaged by the flood in 2011, and we have identified other facilities in Japan and China, which covers 39% of our sales of automobiles, motorcycles and power pruducts in produced value, to have risks of damage when flood occurs. Honda is aggressively developing and introducing a wide variety of electromotive products, starting with hybrid vehicles and also including PHEVs and BEVs. The application of electromotive technologies is expected to continue its expansion in the future, so if the supply chain breaks down somewhere due to abnormal weather, the resulting production shutdown and delay may be far-reaching. We are assuming the possibility of being impacted in areas such as Thailand, which has suffered actual flood damage.

### **Time horizon**

Short-term

### **Likelihood**

Unlikely

### **Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

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

50000000000

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

<Not Applicable>

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

<Not Applicable>

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

Heavy floods caused in part by above-normal rainfall in Mexico during the fiscal year ending March 31, 2018, caused Honda to suffer a 50 billion yen loss as a result of inundation of automobile assembly plants and other flood-related events. If Honda’s production facilities and corporations that constitute the supply chain have to stop production for an extended period, the same degree of loss could be incurred.

### **Management method**

Honda's strategy is to diversify suppliers, and to select suppliers in the area without risks of impacts by abnormal weather. Honda has already built supply chain management scheme, to enable diversifying suppliers, and select suppliers with less physical risks. For example, Honda began operating a procurement risk management system with suppliers in Japan in December 2014. Through the operation of this system, the Company established structures to assess damage and identify the impact on production at suppliers in a short time after the occurrence of a major disaster. At the same time, to prepare for direct damage such as that from the Mexico flooding in the fiscal year ended March, 2018, Honda is properly insured for this risk. Even if a Honda factory suffers from abnormal weather in any region, we will not only restart production as promptly as possible, but also we will positively contribute to support suffering local people. For the Cost of management, we assumed expenses for buying insurance against abnormal weather and updating the equipment to prepare for abnormal weather, which was 56 billion yen for this reporting year, will continue to cost.

### **Cost of management**

55892000000

### **Comment**

### **Identifier**

Risk 3

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

Supply chain

### **Risk type**

Transition risk

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

Technology: Substitution of existing products and services with lower emissions options

### **Type of financial impact**

Research and development (R&D) expenditures in new and alternative technologies

### **Company- specific description**

As the climate change issue escalates globally, consumers are becoming increasingly conscious of fuel efficiency, CO2 emissions, and other environmental performance indicators as factors influencing their purchasing decisions. We perceive such changes in consumer values and market needs as a risk and have created the Honda Environmental Performance Standards (HEPS) to respond appropriately and to take advantage of opportunities for business expansion. We are driving the development of fuel efficiency technologies, electromotive technologies, and other environmental technologies and expanding their application in our products. As one effective measure, Honda is conducting the R&D, demonstration testing and launch of HEVs, PHEVs and EVs. However, overly rapid progress in the electrification of mobility would cause a sharp increase in demand for the raw materials that are currently indispensable for electrification including certain rare earths and would engender the risks of rising prices and instable supply. In line with its aim to improve fuel efficiency by using the electrification of vehicles as a key measure, Honda has developed new hybrid systems ranging from one-motor to three-motor systems which fit each vehicle class. Expanded application of these new systems, which were launched in FY2014, will make it increasingly important to secure a stable supply of the rare earths that are needed for raw materials. This in turn will lead to a corresponding growth in cost impact.

### **Time horizon**

Long-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

600000000

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

<Not Applicable>

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

<Not Applicable>

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

Honda has identified price volatility in raw materials as a climate-change-related risk. R&D and Purchasing Operations strive to minimize this risk in their respective strategies. However, our 2020 projections under the assumption of current technology indicate that exposure to speculative price fluctuation in 2020 would cause rare earth procurement costs to fluctuate by upwards of 600 million yen.

### **Management method**

Honda started to establish measures for preventing a sharp increase in the prices of rare earths from affecting the prices of products. Honda is proceeding with the management of that risk under its adopted Triple ZERO concept. For the development phase, Honda initiated a series of steps to incorporate a pre-assessment system into the development process based on the viewpoint of Reduce, Reuse and Recycle. In cooperation with Japan Minerals & Chemicals Co., Ltd., we are proceeding with the commercialization of a “closed recycling loop” that extracts rare earths from IMA (Integrated Motor Assist) batteries and reuses them in batteries for Honda vehicles. In March 2013, Honda became the first company in the world to establish such a scheme. From now on, we will improve this closed recycling loop to make it more practical, thereby mitigating the raw material risk in a more assured manner. For the cost of management, we assumed same level of R&D budget in FY2018 will cost continuously to manage this risk. To realize both the reduction of raw material risk and the improvement of environmental performance, Honda committed approximately 704 billion yen to the FY2018 R&D budget , in order to facilitate R&D for the technologies described above.

### **Cost of management**

704000000000

### **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**

Products and services

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

Development and/or expansion of low emission goods and services

### **Type of financial impact**

Increased revenue through demand for lower emissions products and services

### **Company-specific description**

As a part of measures to mitigate climate change, governments of various countries have been encouraging consumers to purchase automobiles with high environmental performance through preferential taxations and subsidies. Examples include preferential taxations for purchasing eco-friendly cars in Japan as well as incentive schemes for scrapping old cars in North America and “feebate” programs in Europe. Honda increased its sales by 3.6% in North America in 2017 from the previous year and can expect opportunities about higher sales volume from these incentives and subsidies. Honda is deploying products equipped with fuel-efficiency technologies worldwide. In addition, Honda has developed three types of new hybrid systems to accelerate vehicle electrification. Because we aim to achieve the highest fuel efficiency in every vehicle category through wider application of these technologies, we feel certain that we can seize this opportunity.

### **Time horizon**

Short-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

5000000000

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

<Not Applicable>

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

<Not Applicable>

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

Comparison of automobile unit sales in Japan in April 2012 with sales results for April 2010 (the latter date is before the Great East Japan Earthquake) reveals that unit sales increased by approximately 10% (about 10 billion yen). This resulted from the benefits that were derived from the preferential treatment scheme started by the Japanese government. Sales are estimated to have increased by at least 5 billion yen.

### **Strategy to realize opportunity**

As a part of measures to mitigate climate change, governments of various countries have been encouraging consumers to purchase automobiles with high environmental performance through preferential tax treatment and subsidies. Examples include preferential tax treatment for purchasing eco-friendly cars in Japan as well as incentive schemes for scrapping old cars in North America and “feebate” programs in Europe. In 2016, Honda set a lofty target of making two-thirds of our automobile unit sales being the models equipped with these electromotive technologies by around 2030. In the automobile business, we will promote the introduction of electromotive technologies and strive to popularize the models with small environmental footprints, such as HEVs, P-HEVs, EVs and FCVs. For example, we announced the Clarity series in North America to supplement the FCVs, EVs, and PHEVs power trains with these platforms. As a result of these activities, CO2 emissions from automobiles were reduced by 25.9% compared to the base year FY2000. To realize both the viewing policy of preferential tax treatment or subsidies as an opportunity and the improvement of environmental performance, Honda committed approximately 704 billion yen for the fiscal year ending March 31, 2019 as the R&D budget for automobiles, in order to facilitate R&D for the technologies described above. We assumed cost to realize this opportunity is same level as this cost in 2018 FY.

### **Cost to realize opportunity**

704000000000

### **Comment**

### **Identifier**

Opp2

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

Customer

### **Opportunity type**

Products and services

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

Ability to diversify business activities

### **Type of financial impact**

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

### **Company-specific description**

Independent power sources that Honda offers customers through its power product business contribute to society as a measure for adapting to the more frequent occurrence of abnormal weather as a result of climate change. For example, when infrastructure breaks down as a result of flooding and the like, independent power sources such as generators provided by Honda’s power product business can contribute to livelihood maintenance in the affected area. In the aftermath of the Great East Japan Earthquake that hit Japan in 2011, Honda was able to give assistance to the people in the disaster-stricken area by providing them with independent power sources in the form of 500 generators powered by home-use butane gas canisters and 500 gasoline-powered generators together with 5,000 gas cylinders As part of the power product business, Honda offers a wide line-up of products including generators, water pumps, and autonomously operated cogeneration units. In addition, we also offer products that use relatively easy-to-obtain energy sources, such as a generator that uses home-use gas cylinders. Therefore, it is highly likely in regions where the impact of climate change cannot be avoided, that Honda will be able to make contributions like those mentioned above. For example, in areas where enormous hurricanes have hit in recent years such as the part of U.S. along the Gulf of Mexico, Honda is likely to be able to make a contribution.

### **Time horizon**

Short-term

### **Likelihood**

Very likely

### **Magnitude of impact**

Medium-low

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

Yes, a single figure estimate

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

200000000

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

<Not Applicable>

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

<Not Applicable>

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

Super hurricane Katrina, which struck the Gulf of Mexico in 2005, flooded 80% of the city and caused devastating damage including a massive power failure. For natural disasters caused by abnormal weather like this, Honda’s generators can serve customers as independent sources of power. The Katrina disaster was followed by a 27% increase in unit sales of generators resulting in over 200 million yen in increased sales during the August to November 2005 period compared with the same period of the previous year.

### **Strategy to realize opportunity**

Independent power sources that Honda offers customers contribute to society as a measure for adapting to the more frequent occurrence of abnormal weather as a result of climate change. For example, when infrastructure breaks down as a result of flooding and the like, independent power sources such as generators provided by Honda’s power product business can contribute to lifeline maintenance in the affected area. We will aim to develop and launch the power products (such as generators and cogeneration units) that can contribute to lifelihood maintenance. Honda has realized the conversion into high-quality electricity that is on a par with commercial electricity from the power grid. As a result, “Power Exporter 9000” can run even medical equipment, and specifications that make it possible to connect with ZEVs of other companies as well. It is the world’s first device that goes beyond the boundaries of manufacturers and can connect a wide variety of cars with a wide variety of devices. It's useful at evacuation centers and in other emergency medical situations at the time of a disaster. For the cost to realize opportunity, we assumed same level of R&D cost will needed as we spend in 2018 FY. Honda appropriated 31 billion yen for the 2019 FY, as R&D costs related to power product business for responding to the above contribution.

### **Cost to realize opportunity**

31200000000

### **Comment**

### **Identifier**

Opp3

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

Direct operations

### **Opportunity type**

Products and services

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

Ability to diversify business activities

### **Type of financial impact**

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

### **Company-specific description**

Honda recognizes smart community technology, which is undergoing demonstration testing around the world as part of climate change mitigation measures, as an opportunity. For the core elements of the smart community\* such as automobiles, motorcycles, generators and cogeneration units, Honda possesses its own technologies and products, so that the favourable impact of this opportunity is much greater for us than for other companies in the same industry. For example, in 2017, we started a demonstration test of car-sharing and robotics technologies in Chiba, Japan, aiming to realize a smart community specially targeted for aging society. If Honda can seize this opportunity, it will be able to demonstrate synergies such as increased sales and profit, while overcoming the traditional boundaries that have separated business operations from each other in the past. \*Smart community technology is a set of technologies that make up a highly efficient, vibrant, self-sustained community (“smart community”). Public and private sectors aim to realize the smart community jointly through comprehensive coordination including the next-generation energy infrastructure; combined information, communications and transportation systems; and a variety of products and services.

### **Time horizon**

Long-term

### **Likelihood**

About as likely as not

### **Magnitude of impact**

Medium-high

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

Yes, a single figure estimate

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

5000000000

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

<Not Applicable>

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

<Not Applicable>

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

A closer link between mobility and people’s everyday lives through total energy management will lead to sales expansion for non-mobility products, such as services and cogeneration systems incidental to the smart community, and holds the possibility of contributing to a higher operating profit ratio through sales and a synergy effect among Honda’s various businesses. For example, we estimate that an additional 0.1% in the operating profit ratio would boost profit by more than 5 billion yen.

### **Strategy to realize opportunity**

Honda recognizes smart community technology, which is undergoing demonstration testing around the world as part of climate change mitigation measures, as an opportunity. For the core elements of the smart community such as automobiles, motorcycles, generators and cogeneration units, Honda possesses its own technologies and products, so that the favorable impact of this opportunity is much greater for us than for other companies in the same industry. With “Triple ZERO” as a goal, we will enhance Honda’s brand value and reputation by aggressively pursuing the zero CO2 emissions risk with the use of renewable energy, zero energy risk, and zero resource- and disposal-related risk. Honda is expanding business opportunities by developing EVs and FCVs, on top of promoting the establishment of hydrogen-filling stations in partnership with other companies. From now on, we will keep on studying which combination can utilize energy in a more efficient manner, so that as many customers as possible will utilize this equipment. For the cost to realize opportunity, Honda believes that developing technologies that form part of the “smart community” and making demonstration tests using these technologies will create future business opportunities. In accordance with this idea, Honda established a budget of 820 billion yen for overall R&D expenses for FY2019., and we assumed same level of expense will needed to realize this opportunity.

### **Cost to realize opportunity**

820000000000

### **Comment**

## **C2.5**

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

|  |  |  |
| --- | --- | --- |
|  | **Impact** | **Description** |
| Products and services | Impacted | As climate change becomes more severe, emissions regulations for cars are becoming more stringent in our key markets, such as the North America, Asia and Japan, where we sell 91% of our vehicle. If the transition to climate-responsive products (powertrain electrification vehicles, etc.) is delayed, a change of revenue from automobiles is expected to be lost. In FY2017, revenue from automobiles sales was 209 billion yen which could have been partially loss, so the magnitude of impact is significant. |
| Supply chain and/or value chain | Impacted | There is a risk that the plant will not be able to operate due to delays in delivery or shortage due to the physical effects of climate change. For extent, flooding in Mexico in 2018 resulted in a loss of 50 billion yen, due to the delay of products delivery, and the damage by the similar incidents is expected to be at the same level. Since we rely on our production of vehicles mainly in the area where there is a risk of floods, the magnitude of impact is significant. |
| Adaptation and mitigation activities | Impacted | As for global warming, which is caused by climate change, the use of air conditioners for automobiles to cool the interior of the vehicle is said to increase energy consume by about 10% when the temperature actually rises. As an effect, product value such as cruising range and fuel economy may be reduced and business risk may increase. Honda strives to improve fuel economy (electricity consumption) in order to minimize the decline in product value. In North America, for example, Honda's average fuel economy has improved dramatically in comparison with the required average fuel economy regulations by around 90%. The average fuel economy has been the highest in the industry, and the average fuel economy has improved considerably in comparison with the required average fuel economy achieves for Honda's average fuel economy standards. Development costs in 2018 were 704 billion yen, which is expected to increase further in the future. The magnitude of impact is significant. |
| Investment in R&D | Impacted | There is a risk that the worsening of climate change will create more needs for research and development expenditure for the transition to low-carbon technologies. In order to speed up the development of PHEVs, EVs and FCVs, our team for research and development for electric vehicles is strengthened, and a specialized organization "EVs Development Office" is established in the laboratory to develop one vehicle from the powertrain to the vehicle body in an integrated manner, and a large amount of investments are required. Development costs in 2018 were 704 billion yen , which is expected to increase further in the future. Increased investments in rates of return to deterioration returns and therefore the magnitude of impact is significant. |
| Operations | Impacted | The rapid spread of electrified vehicles due to the worsening of climate change poses a risk of obsolescence of existing operating equipment. In order to meet the needs of markets around the world, we are investing our equity to electrify our automobile products. For example, we decided to change Yorii assembly plant to our flagship plant for all powertrain electrification vehicles as an electric vehicle base, and a production system tailored to the needs of markets around the world. Given Honda’s goal of electrifying two thirds of automobiles, that accounts almost half of its sales, the magnitude of impact is significant. |
| Other, please specify | Please select |  |

## **C2.6**

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

|  |  |  |
| --- | --- | --- |
|  | **Relevance** | **Description** |
| Revenues | Impacted | Honda is aware of the risks of tightening national emission regulations and changing markets for our products. Therefore, by 2030, we are going to electrify 67% of our portfolio of our automobile, which is consisted of PHVs, HVs, FCVs, and EVs, that means, about 50% of Honda's sales will be affected by the shift to electrified cars, and failure to be recognized as good manufacturer of electrified cars, as we have been recognized in the gasoline car, will result in the reduction in revenue. This sales portfolio is reflected in our sales strategy and is falling into model development. So we consider this in our revenue planning and the magnitude of impact is significant. |
| Operating costs | Impacted | Honda has a target to electrify two-thirds of our vehicles sales by 2030, which affects about 50% of its total sales. It is difficult to predict which of the technology will be dominant, which will be affected by various reasons, such as market trends, regulations, infrastructure, etc. Changes from engines to batteries can increase or decrease our operating cost, due to the parts procurement, and assembly process, which depend on the technology development. In order to further research the operating efficiency, the company is promoting R& D as development as the aggregation of parts for electrified vehicles and the procurement of batteries. For example, it is possible to install varied powertrains on the same platform, and it is possible to respond with a view to more efficient operation. So we consider this in our operating cost planning and the magnitude of impact is significant. |
| Capital expenditures / capital allocation | Impacted | In order to achieve the aforementioned target of electrifying two-thirds of our automobiles by 2030, we need to review our production networks for powertrain, which affect about 50% of total sales. For example, in 2017, the company invested in changing Yorii Plant in Japan, which accounts for 25% of production in Japan, into a base to produce powertrain for electrified vehicles. Such equity equipment is reflected in the company's investment-allocation plans and the magnitude of impact is significant. |
| Acquisitions and divestments | Not yet impacted | Failure to develop powertrain electrification and low-carbon products can be negatively fed back by investors and, in the worst-case, can result in divestment. Though we have launched our first FCV “CLARITY FUEL CELL” in 2016, we need to accelerate our R&D even further. If we failed to develop electrified vehicles with good market reputations, major percentage of our sales can be derived from gasoline cars. In these cases, we will have a risk of divestment by investors who take into account ESG factors. We expect this can happen in the year around 2020, when the technology for the future will be determined. Honda is striving to engage with investments so that this will not be the case. At the present time, no major problems have information, and we will continue to strengthen R& D and disclosure. |
| Access to capital | Not yet impacted | Without developing electrified powertrain and low-carbon products, stakeholders may be negatively fed back, and at worst-case we will not be able to receive subsidy from national and local governments on demonstration test of smart community and so on. We believe this will not happen in the near future, since Honda is closely communicating with and cooperating with many local governments in order to promote smart communities. We expect this could happen in around 2020, when….Although such problems have not occurred at this time, we have formulated business plans so that projects can be realized without subsidies in the future. |
| Assets | Impacted | There is a risk that abnormal weather caused by climate change will force our operating bases to shut down due to flooding and other factors. The 2011 flood in Mexico resulted in a loss of 50 billion yen due to the shutdown of local plants, which produce automobiles. Since then, in the management of our assets, we have been making efforts to investment in equipment to improve resilience to abnormal weather conditions, and have also been paying attention to the selection of new bases. So we consider this in our asset planning and the magnitude of impact is significant. |
| Liabilities | Not yet impacted | The tightening of emission regulations in each country can, at worst, cause Honda to be unable to comply with laws and regulations and to be fined or sued by customers. Honda plans to continue sales of fossil fuel based combustion engines, especially for the motorcycles, and when the climate change becomes more issues in North America and Europe, where litigation for the climate-related issues has occurred, we see there is a risk of lawsuit for Honda for continuation of fossil fuel combustion in around 2020. At present, such issues has not occurred, and we believe that it will not be affected at least in the coming 1-2 years. We, however, will continue to strengthen governance in order to reduce litigation risk. |
| 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.**

i. A company-specific explanation of how business objectives and strategy have been influenced by climate-related issues;

To recognize today's environmental challenges, we first gathered information on environmental issues through communication with stakeholders and discussions among internal divisions (directors, environmental departments, regional divisions, business divisions, and functional divisions). We analysed the information collected from the viewpoints of the relationship between the challenges and the "Honda Environmental and Safety Vision" and the consistency between the issues and Honda's corporate philosophy. We also selected environmental challenges of relatively high importance, namely "Climate Change," "Energy," and "Effective Use of Resources."

Honda's environmental strategies, including climate-change strategies, are discussed and approved by members of the Executive Committee at an annual the Sustainability Strategy Committee. The approved strategies are reflected annually in the strategies of the regional headquarters, the business headquarters of each product group (motorcycles, automobiles, and power products), and the functional headquarters, such as production and purchasing.

ii. Explanation of whether your business strategy is linked to an emissions reductions target or energy reduction target;

Honda is working to address climate-change questions through initiatives that combine its business and environmental strategies. We recognized a variety of climate change questions, including trends to enhancement CO2 (fuel efficiency) regulations for products (especially automobiles), emissions regulations for fixed emission sources, trends in emissions trading, and grants to encourage the development of future technologies. Based on this, we have set a target of reducing total CO2 emissions by half compared to 2000 levels by 2050, drawing on a future vision of zero environmental impact.

As a step-by-step target, we have established the 2020 target for reducing CO2 emissions per unit of production by 30% from the 2000 level when motorcycles, automobiles, and power products are used worldwide, and the triple-zero concept, which aims to achieve zero CO2 emissions well to wheel. We are developing technologies that contribute to the reduction of CO2 emissions.

iii. What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy;

As automakers are expected to make further efforts to resolve global warming, Honda is working to achieve its target of reducing total GHG emissions by half compared to 2000 levels by 2050, and is promoting initiatives in motorcycles, automobiles, and power products.

In Automobiles, we will promote the introduction of powertrain electrification technologies to promote the use of hybrid, plug-in hybrid, electric, fuel-cell, and other vehicles with low environmental impact. By 2030, we plan to replace two-thirds of our automobile sells with vehicles equipped with these powertrain electrification technologies.

　In December 2017, Honda launched the Clarity series of automobiles in North America. The Clarity series platforms three types of electric powertrains: PHEV, EVs, and FCVs. This world's first challenge to expand the option of electric vehicles to meet customer needs has been highly regarded, as evidenced by the selection of "2018 Green Car of the Year" in the U.S. journal Green Car Journal.

As for motorcycles, we have set up and begun sells of PCX HYBRID, a two-class motorized bicycle scooter that employs the world-first hybrid system for mass-produced motorcycles.

　As for power products, we have been developing and commercializing powertrain electrification instruments that are useful in various aspects of life, and have been proposing products that provide new value, such as the robotic lawnmowers "Miimo" and the handy-type capacitor "Lived E500".

## **C3.1d**

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

|  |  |
| --- | --- |
| **Climate-related scenarios** | **Details** |
| 2DS  RCP 2.6 | As an automobile manufacturer, Honda recognizes that the global impacts of GHG emissions from its business activities are very high, and that it is essential to set company-wide targets considering the needs for GHG emissions reduction. We refereed RCP2.6 in the IPCC report, because the challenge for automobile manufacturer such as Honda is in need to reduce emissions, and if the regulation in various markets will shift to ban emissions of fossil fuel, it means we need to shift our products, which will require time for products developments. We referred to the emission reduction path in RCP2.6, which shows the needs for the emission reduction worldwide. Time horizon we considered was until 2050, because until 2050, major decrease of emissions should occurred in order to avoid dangerous climate related impacts. Our scope of analysis includes Scope1,2 and 3 emissions. The analysis showed that, as our goal of "halving total GHG emissions by 2050" set at the Honda World Environmental Committee (now we have changed this it into "the Honda Sustainability Strategy Committee") in 2014 shows, automobile manufacturers need to move to electrified vehicles. In order to achieve this long-term target, Honda thought it needed to significantly reduce emissions from automobiles, which account for the majority of our total GHG emissions, therefore made various business decisions to pursue low-carbon emission vehicles. For example, as a result of scenario analysis, in 2016, we set a target of electrifying two-thirds of vehicles we sell by 2030, which is a significant business decision. In the future, Honda will endeavor to development and expand low-carbon vehicles. |

## **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.**

Honda considers climate change and energy-risk responses to be issues and actively promotes powertrain electrification products. Honda has set a target of replacing two thirds of its automobile sells by 2030 with models equipped with powertrain electrification technologies. In order to achieve these targets, we are working to enlarge business opportunities by development PHEVs, EVs, FCVs, and external power feeders, as well as by developing hydrogen stations in cooperation with other companies. For product, Honda announced the Clarity series in North America, which supplements FCVs, EVs, and PHEVs powertrains. In addition, 60 EV charging stations have been installed on the premises of the American Honda Motor in Torrance, California, and we are actively promoting the development of infrastructure for products and their dissemination.

To collect a wide range of customer opinions and requirements regarding electric scooters, the PCX ELECTRIC will be monitored. In addition, feasibility tests commenced in Japan for a bike-sharing service in the Tokyo metropolitan area and bike-rental service in tourist resorts.

Honda also plans to lease-sell the PCX ELECTRIC to corporate clients in Southeast Asia. In the Philippines, a feasibility test is underway for a surplus power utilization system using the PCX ELECTRIC.

Through monitoring as well as rental and sharing services, Honda will gauge electric scooter usability from the perspectives of business and personal use. The acquired data will be used in development to bring electric scooters even closer to customers.

## **C4. Targets and performance**

## **C4.1**

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

Both absolute and intensity targets

## **C4.1a**

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

### **Target reference number**

Abs 1

### **Scope**

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

### **% emissions in Scope**

100

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

50

### **Base year**

2000

### **Start year**

2008

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

180000000

### **Target year**

2050

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

No, and we do not anticipate setting one in the next 2 years

### **% of target achieved**

0

### **Target status**

Underway

### **Please explain**

In order to realize Honda Environmental and Safety Vision and ultimately play a principal role in creating a society with no environmental impact, Honda is committed to tackling climate change, energy, and resource issues through its own technologies and business activities. In response to climate change, we are steadily reducing CO2 emissions by improvement existing technologies. We are also actively introducing renewable energy, aiming for the future elimination of CO2 emissions from our products and business activities. In course, we are steadily reducing CO2 emissions by improvement existing technologies. At present, Honda is currently working to achieve its target of reducing CO2 emissions from motorcycles, automobiles, and power products by 2020, which will reduce CO2 emissions per unit of production worldwide by 30% (compared to 2000 levels). Subsequently, we aim to halve total corporate emissions by 2050. Despite the target of halving total CO2 emissions by 2050, present condition CO2 emissions are on an increasing trend. Automobile production, which has a significantly affect on CO2 emissions, increased by 48% from 2010 to 2017 to approximately 1,700,000 vehicles. Although CO2 emissions per vehicle have decreased, the enlarge in production has exceeded that. In the future, Honda will continue to strive to further improve productivity and to introduce renewable energies in a balanced production.

## **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 3: Use of sold products

### **% emissions in Scope**

69

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

30

### **Metric**

Grams CO2e per kilometer\*

### **Base year**

2000

### **Start year**

2011

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

181.3

### **Target year**

2020

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

No, and we do not anticipate setting one in the next 2 years

### **% of target achieved**

86

### **Target status**

Underway

### **Please explain**

This is a target for automobiles we sold. We achieved 25.9% of reduction in 2018 compared with the target of 30% reduction in 2020. In order to promote environmental measures strategically, Honda has adopted the "EARTH DREAMS TECHNOLOGY" concept, introducing technologies that ultimately improve the efficiency of internal combustion engines and hybrid-type technologies that integrate engines and motors to a high degree. In fiscal 2018, we installed a Sport hybrid i MMD engine on the Accord and a 2.0L i-MMD engine on the STEPWGN and Odessey to achieve excellent fuel efficiency.

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

0

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

21

### **Target reference number**

Int 2

### **Scope**

Scope 3: Use of sold products

### **% emissions in Scope**

27

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

30

### **Metric**

Grams CO2e per kilometer\*

### **Base year**

2000

### **Start year**

2011

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

### **Target year**

2020

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

No, and we do not anticipate setting one in the next 2 years

### **% of target achieved**

100

### **Target status**

Underway

### **Please explain**

This is a target for motorcycles we sold. We achieved 32.2% of reduction in 2018 compared with the target of 30% reduction in 2020. Honda achieved the target ahead of schedule. We enlarge the use of the "eSP" as a global engine for commuter models, which account for the majority of sells, and made all small scooter models equipped with eSP. Low-friction engines are equipped with PGM-FI (electronically controlled fuel injection system) and idle stop technology. Honda commenced lease sales of the electric motorized scooter “PCX ELECTRIC” in November 2018 in response to climate change and energy diversification.

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

0

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

8

### **Target reference number**

Int 3

### **Scope**

Scope 3: Use of sold products

### **% emissions in Scope**

3

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

30

### **Metric**

Other, please specify (kg CO2 per hour)

### **Base year**

2000

### **Start year**

2011

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

### **Target year**

2020

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

No, and we do not anticipate setting one in the next 2 years

### **% of target achieved**

89

### **Target status**

Underway

### **Please explain**

This is a target for power products we sold. We achieved 26.7% of reduction in 2018 compared to the target of 30% reduction in 2020. Honda sold hybrid snowplows in 2018. Furthermore, we are actively working to achieve our goals, such as installing a new engine GCV with high environmental performance on a lawn mower.

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

0

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

2

## **C4.2**

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

## **C4.3**

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

Yes

## **C4.3a**

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

|  |  |  |
| --- | --- | --- |
|  | **Number of initiatives** | **Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked \*)** |
| Under investigation | 0 | 0 |
| To be implemented\* | 0 | 0 |
| Implementation commenced\* | 3 | 5690 |
| Implemented\* | 1483 | 27140 |
| Not to be implemented | 0 | 0 |

## **C4.3b**

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

### **Initiative type**

Process emissions reductions

### **Description of initiative**

Changes in operations

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

1940

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

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

43600000

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

501400000

### **Payback period**

11-15 years

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

21-30 years

### **Comment**

Honda makes efforts to reduce the amount of fuel used in order to reduce its environmental impact. In Japan's plants and offices, LNG consumption was reduced by 39,000 GJ/year by replacing the chilled and hot water generator, which serves as the heat source for air conditioning, with a heat pump chiller. Although scope 2 has increased as a result of switching to electrification, total emissions have been reduced by 52%, and we are promoting activities to reduce environmental impact. We are also considering the use of renewable energy for purchased electricity, and are working to prepare for the future to achieve zero environmental impact.

### **Initiative type**

Low-carbon energy installation

### **Description of initiative**

Solar PV

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

1200

### **Scope**

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

43600000

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

501000000

### **Payback period**

11-15 years

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

21-30 years

### **Comment**

We installed a 2.0 MW solar photovoltaic system at the American Honda Motor Co., Inc. campus in Torrance, California. It offsets roughly 30 percent of the purchased electricity for the entire campus. Solar energy also provides 100 percent of the on-site electric vehicle charging energy. The solar array is connected to a 700kW lithium ion battery system to improve grid integration and reduce demand charges. Renewable energy at Honda's North America operations now totals 3.1 MW of Honda owned solar energy and a 4.6 MW PPA for wind energy.

### **Initiative type**

Low-carbon energy installation

### **Description of initiative**

Solar PV

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

28000

### **Scope**

Scope 3

### **Voluntary/Mandatory**

Voluntary

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

687000000

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

131000000

### **Payback period**

<1 year

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

11-15 years

### **Comment**

Honda continues to expand the Honda Environmental Leadership Program as an emissions reduction initiative for dealerships. This Program is based on a comprehensive set of environmental best practices with a strong focus on measuring energy reduction. Dealerships receive a customized environmental assessment report with specific recommendations to reduce energy, conserve water, reduce waste, install renewable energy, and improve building envelope. In addition to automotive dealerships, the program also includes Honda motorcycle and power equipment product lines.

## **C4.3c**

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

|  |  |
| --- | --- |
| **Method** | **Comment** |
| Internal finance mechanisms | Our investments are roughly divided into ordinary and special investments. Ordinary investments are approved by regional headquarters. Special investments are not approved until approved by Japan headquarters. Investment in high-efficiency equipments aimed at achieving the greenhouse gas reduce target is basically made as ordinary investment. On the other hand, in the course of the PDCA to achieve the target, if it is judged that the achievement of the reduce target is threatened if funds are not allocated as ordinary investment but as special investment, the reduction target is approved by the Japan Head Office as special investment. Honda considers the achievement of greenhouse gas reduce targets to be one of its key business objectives. Therefore, while fully considering the recovery period, greenhouse gas reductions are also used as a standard for evaluating investment. Through these investment cost management mechanisms, Sharp is working to maintain the soundness of its business operations with shareholders, and is operating its business so that it can achieve the company-wide targets for greenhouse gas reductions. |

## **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**

Company-wide

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

(1) Reducing CO2 emissions through efficiency improvements of internal combustion engines (2) Reducing CO2 emissions by introducing environmentally innovative technologies and diversifying energy sources (3) Eliminating CO2 emissions through the use of renewable energy and total energy management

### **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 (Honda Environmental Performance Standard)

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

90.3

### **Comment**

By meeting with Honda Environmental Performance Standard (HEPS:Honda Environmental Performance Standard), which is a highly proprietary product guideline, Honda has set a target of 30% reduction in CO2 emissions per unit of production by 2020 (compared to 2000), and is actively working to reduce CO2 emissions during use of products it provides to customers. The HEPS is divided into three major categories. For automobiles, the Revolutionary Products is defined as a product that aims to reduce emissions to zero (carbon-free) by High Efficient Products, installing environmental innovative technologies (HEVs, FFVs, etc.) or energy-diversification (diesel fuel, ethanol fuel, etc.) by Innovative Products (carbon-free) while reducing emissions significantly (with internal standards) by improving internal combustion engine efficiencies with respect to the basis model. Honda's original initiative aims at higher reduces rather than normal reductions. The number in the notation represents the total number of automobile models.

## **C5. Emissions methodology**

## **C5.1**

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

### **Scope 1**

### **Base year start**

avril 1 2009

### **Base year end**

mars 31 2010

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

1307000

### **Comment**

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

### **Base year start**

avril 1 2009

### **Base year end**

mars 31 2010

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

2772000

### **Comment**

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

### **Base year start**

avril 1 2009

### **Base year end**

mars 31 2010

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

2772000

### **Comment**

## **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.**

Act on the Rational Use of Energy

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## **C6. Emissions data**

## **C6.1**

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

### **Reporting year**

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

1380000

### **Start date**

avril 1 2018

### **End date**

mars 31 2019

### **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**

## **C6.3**

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

### **Reporting year**

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

3690000

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

4090000

### **Start date**

avril 1 2018

### **End date**

mars 31 2019

### **Comment**

## **C6.4**

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

No

## **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**

43900000

### **Emissions calculation methodology**

i) For activity data, the FY2018 annual volume of purchased goods was calculated by multiplying the amount of raw material used by a typical model for each business by yield rate and FY2018 total annual production volume of all models. We mainly applied emissions factors from the basic database of the Carbon Footprint Communication Program (compiled with data supplied by the Manufacturers Association and the IDEA from the "list of available databases” on the GHG Protocol website). To certain emissions factors, we applied intensities established by taking into account the energy efficiency in each country. ii) The quality of the activity data is “Good” and that of the emissions factors is also “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Annual volume of purchased goods was aggregated by component raw material and multiplied by cradle-to-gate emissions of each raw material to obtain the Category 1 emissions.

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

### **Explanation**

### **Capital goods**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

1230000

### **Emissions calculation methodology**

i) For activity data, the FY2018 annual capital investment for each business was collected from internal accounting data. Emissions factors were determined using information such as “Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables” (3EID), which is published by the National Institute for Environmental Studies, an independent administrative institution and included in the “list of available databases” on the GHG Protocol website. ii) The quality of the activity data is “Very Good” and that of the emissions factors is “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) The FY2018 annual investment for each business was multiplied by the emission factor of each business.

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

### **Explanation**

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

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

545000

### **Emissions calculation methodology**

i) For activity data, annual volume used in FY2018 by operation bases and energy type was totaled from an internal system. We applied electric power emissions factors determined by country based on the IEA energy balance table. For other emissions factors, we applied those from the basic database of the Carbon Footprint Communication Program. For certain data, we also referred to the list of emissions factors prepared during a review conducted by the Ministry of the Environment for assistance on Scope 3 calculations. ii) The quality of the activity data is “Very Good” and that of the emissions factors is also “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Annual volume used in FY2018 by energy type was multiplied by its emission factor.

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

### **Explanation**

### **Upstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

3010000

### **Emissions calculation methodology**

i) Emissions from transport and logistics in Japan for cargos owned by the company were calculated by the methodology stipulated in the Act on the Rational Use of Energy of Japan. For activity data, we first determined the actual amount of light oil and gasoline used by trucks and ships. These quantities were then multiplied by the following emissions factors to obtain emission values. ・Gasoline: 34.6 [GJ/kL] and 0.183 [tC/GJ] ・Light oil: 38.2 [GJ/kL] and 0.183 [tC/GJ] The same methodology was applied to calculation for transport and logistics of goods procured by the company in Japan, with the calculated portion extrapolated ii) The quality of the activity data is “Very Good” and that of the emissions factors is “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Data collected on a trial basis was used for emissions from the transport and logistics in regions outside Japan for cargos owned by the company. Emissions from procurement logistics were estimated using sales ratio between Japan and overseas.

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

### **Explanation**

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

224000

### **Emissions calculation methodology**

i) For activity data, we used an internal system to total the waste volume in FY2018 by operation base and waste type. To determine emissions factors, we referred to the list of emissions factors prepared during a review conducted by the Ministry of the Environment for assistance on Scope 3 calculations. ii) The quality of the activity data is “Very Good” and that of the emissions factors is also “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Waste volume by operation base and waste type in FY2018 was totaled by operation base and waste type and then multiplied by the factor for each waste type.

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

### **Explanation**

### **Business travel**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

279000

### **Emissions calculation methodology**

i) We basically carried over the FY2012 calculation results because the emissions from this source account for a small proportion of all Scope 3 emissions and therefore have limited impact on reduction efforts and because it is difficult to gather actual data for it. Only the emissions from business travel by air in North America were replaced with FY2018 actual results. For activity data, travel expenses for domestic and overseas business travel of Honda Group in Japan in FY2018 were totaled by transportation mean from the internal data. For emissions factors, we applied “Embodied Energy and Emissions Intensity Data for Japan Using Input-Output Tables (3EID)” published by the National Institute for Environmental Studies, an independent administrative institution. ii) The quality of the activity data is “Fair” and that of the emissions factors is “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) An emission factor of each transportation mean was applied to travel expenses for each transportation mean. Due to a speculation that business trips at Japanese operation bases are more frequent than those at overseas operation bases, in order to avoid underestimation, travel expenses for overseas operation bases were extrapolated based on those for Japanese operation bases in proportion to headcount. Expenses amount after extrapolation was distributed among rail, air, and private car trips according to the ratio of travel means in each region.

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

### **Explanation**

### **Employee commuting**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

172000

### **Emissions calculation methodology**

i) We carried over the FY2012 calculation results because the emissions from this source account for a small proportion of all Scope 3 emissions and therefore have limited impact on reduction efforts and because it is difficult to gather actual data for it. For activity data, the total compensation in FY2018 for transit passes and gasoline paid to associates working at all operation bases in Japan was calculated from internal data. For emissions factors, we applied “Embodied Energy and Emissions Intensity Data for Japan Using Input-Output Tables (3EID)” published by the National Institute for Environmental Studies, an independent administrative institution. ii) The quality of the activity data is “Fair” and that of the emissions factors is “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Commuting expenses by transportation mean were multiplied by the emission factor of each transportation mean. Emissions at overseas operation bases were estimated according to ratio by commuting mean investigated in each region and based on a constructed scenario.

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

### **Explanation**

### **Upstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Explanation**

The activity falling under this category is emissions from operation of leased assets such as copy machines and personal computers. These emissions are included in Scope 1 and 2 as emissions from office operations. Because there are no emissions from leased assets outside of Scope 1 and 2, no emissions are reported in this category.

### **Downstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

137000

### **Emissions calculation methodology**

i) Energy consumed by each sales outlet was totaled from a system deployed to unconsolidated Honda brand dealers in Japan. To determine emissions factors, we used the “List of methodologies and emissions factors for the GHG emissions calculation, reporting, and disclosure systems” and “CO2 emissions factors of each electric power supplier (FY2015 results)” in accordance with the Act on Promotion of Global Warming Countermeasures of Japan.ii) The quality of the activity data is “Good” and that of the emissions factors is “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. Specifically, we referred to Box 7.2 of that table. iii) Emissions were calculated by multiplying total energy consumption per energy type for each sales outlet by the emissions factor for each type. The quality of the activity data is “Good” and that of the emissions factors is “Very Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. Sum of energy consumed by each sales outlet was multiplied by the emission factor for each energy type.

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

### **Explanation**

### **Processing of sold products**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

38100

### **Emissions calculation methodology**

i) Power equipment engines fall under this category. We carried over the FY2012 values for emissions intensity per engine at final product assembly because the emissions from this source are small (the result of a FY2012 estimation) and therefore have limited impact on reduction efforts and because it is difficult to gather the actual data. Internal data for FY2018 was used for engine unit shipments. In-house data (for FY2012) measured during assembly at an operation site was used as substitute for energy consumption during assembly. To determine emissions factors, we used the “List of methodologies and emissions factors for the GHG emissions calculation, reporting, and disclosure systems” and “CO2 emissions factors of each electric power supplier (FY2015 results)” in accordance with the Act on Promotion of Global Warming Countermeasures of Japan. ii) The quality of the activity data is “Very Good”, and that of the emissions factors is “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) Energy consumed for the assembly of one unit was multiplied by unit shipments and the emissions factor for each energy type.

### **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**

257000000

### **Emissions calculation methodology**

i) Activity data: Calculations cover the emissions of approximately 90% of all automobiles (Auto), motorcycles (MC) and power products (PP) sold worldwide under the Honda brand. Auto: Unit sales, CO2 emissions per kilometer traveled, annual travel distance and vehicle life. The Unit sales by each business and each region come from internal sources. CO2 emissions per kilometer traveled was calculated by weighting each product’s CO2 emissions per kilometer traveled by its ratio of total sales for each region. The annual travel and vehicle life were determined by using the IEA SMP Model. MC: Covers only vehicles that are allowed to run on general public roads. Unit sales, CO2 emissions per kilometer traveled , annual travel distance and vehicle life. The unit sales by each business and each region and vehicle life come from internal sources. CO2 emissions per kilometer traveled was calculated by weighting each product’s CO2 emissions per kilometer traveled by its ratio of total sales for each region. The annual travel distance and vehicle life were determined by using the IEA SMP Model. PP: Covers all products in this category. Unit shipments, CO2 emissions per hour operated, annual usage in hours and product life. The unit shipments come from internal sources. The annual usage in hours was determined based on the report of EPA and internal data. The product life was determined based on internal data.・Auto: For Japan, US, Europe, and China; fuel economy data reported to public agencies were used・Auto: For Asia-Oceania and South America, MC: Internal tests conducted in gas emission measurement mode for each region were used・PP: Internal tests conducted in gas emission measurement mode and engine load data that assumed by usages and operators were used. ii) The quality of the activity data is “Good”, and that of the emission factors is “Very Good”. iii) Assumptions: Auto and MC: CO2 emissions for each business and each region were calculated as the product of the following: Unit sales, CO2 emissions per kilometer traveled, annual travel distance and vehicle life. PP: CO2 emissions for each business and each region were calculated as the product of the following: Unit shipments, CO2 emissions per hour operated, annual usage in hours and product life.

### **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**

4090000

### **Emissions calculation methodology**

i) For activity data, FY2018 unit sales of automobiles and motorcycles and FY2018 unit shipments for power equipment were totaled from internal data. Emissions factors were determined by referring to documentation on automobile disposal treatment. For motorcycles and power equipment, as it is assumed that per unit emissions from disposal would be less than an automobile, the emission factors for automobiles were used in order to avoid underestimation. Emissions were calculated by multiplying unit sales by region in FY2018 by emission factors relevant to disposal of automobile. ii) The quality of the activity data is “Very Good”, and that of the emissions factors is “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) ・Automobiles: Emissions were calculated by multiplying unit sales of each region in FY2018 by emission factors that takes regional treatment methodology into consideration. ・Motorcycles and power equipment: As it is assumed that per unit emissions from disposal would be less than an automobile, the emission factors for automobiles were used in order to avoid underestimation. Emissions were calculated by multiplying unit sales by region in FY2018 by emission factors relevant to disposal of automobile.

### **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**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Explanation**

Automobiles for lease are applicable. As Honda offers the same products for sales and lease, there is no benefit in reporting automobiles separately for Category 11 for sold products and Category 13. Therefore, emissions until the end of product life from automobiles sold for lease were reported in Category 11.

### **Franchises**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Explanation**

Out of scope because Honda has no franchises.

### **Investments**

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO2e**

93200

### **Emissions calculation methodology**

i) The investees and investment ratios come from data in the Securities Reports. Scope 1 and 2 emissions at investee companies in FY2018 were collected from those companies’ environmental reports and websites. ii) The quality of the activity data is “Very Good”, and that of the emissions factors is “Good”. Data quality is evaluated based on a methodology that uses five criteria consisting of temporal, technological, and geographical representativeness together with completeness and reliability. This methodology is recommended by the GHG Protocol Scope 3 Standard and shown in Table 7.6 of that standard. iii) ・Scope 1 and 2 emissions in FY2018 at investees listed in Honda’s annual Securities Report are reported according to Honda’s shareholding ratio. (This data covers 30 out of 94 companies, which account for 86.9% of the amount presented in the balance sheet.) Emissions of the remaining 64 companies (13.1%) were extrapolated using the amount presented in the balance sheet.

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

### **Explanation**

### **Other (upstream)**

### **Evaluation status**

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Explanation**

### **Other (downstream)**

### **Evaluation status**

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **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.**

### **Row 1**

### **Emissions from biologically sequestered carbon (metric tons CO2)**

2720

### **Comment**

## **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**

0.344

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

5470000

### **Metric denominator**

unit total revenue

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

15900000000000

### **Scope 2 figure used**

Market-based

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

3.9

### **Direction of change**

Decreased

### **Reason for change**

Our revenue increased about 3% from the previous year, and unit sales rose about 2% in Automobiles, 4% in Motorcycles, and 1% in Power Products. Though sales of all products increase 2.7% year-on-year, as a result of our global activities to reduce emissions, we increased efficiency and decrease total GHG emissions by approximately 0.6%. Honda has implemented measures to reduce GHG emissions, such as measures to streamline its productions, conversion to low-carbon energy, and introducing renewable energy, and will continue these emissions reduction activities in the future as well. Example of our emission reduction activities is, replacing the chilled and hot water generator, which serves as the heat source for air conditioning, with a heat pump chiller, and saved LNG consumption by 39,000 GJ/year.

### **Intensity figure**

0.405

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

5470000

### **Metric denominator**

Other, please specify (Adjusted sales of non-financial services)

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

13500000000000

### **Scope 2 figure used**

Market-based

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

2.4

### **Direction of change**

Decreased

### **Reason for change**

Except for sales in the financial services business, which is less correlated with greenhouse gas emissions, we established a basic unit indicator that is more correlated with greenhouse gas emissions, and confirmed the changes. As a result, net sales excluding the financial services business and the number of automobiles produced increased by 2.7% from the previous year, but total GHG emissions decreased by about 2.4% compared to the previous year as a result of global activities to reduce GHG emissions. This was largely attributable to our ongoing activities to reduce GHG emissions, such as measures to improve the factor of production operations, conversion to low-carbon energy, and the introduction of renewable energy. Honda will continue to promote activities to reduce GHG emissions. Example of our emission reduction activities is, replacing the chilled and hot water generator, which serves as the heat source for air conditioning, with a heat pump chiller, and saved LNG consumption by 39,000 GJ/year.

## **C7. Emissions breakdowns**

## **C7.1**

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

Yes

## **C7.1a**

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

|  |  |  |
| --- | --- | --- |
| **Greenhouse gas** | **Scope 1 emissions (metric tons of CO2e)** | **GWP Reference** |
| CO2 | 1330000 | IPCC Fourth Assessment Report (AR4 - 100 year) |
| CH4 | 1410 | IPCC Fourth Assessment Report (AR4 - 100 year) |
| N2O | 1170 | IPCC Fourth Assessment Report (AR4 - 100 year) |
| HFCs | 6940 | IPCC Fourth Assessment Report (AR4 - 100 year) |
| SF6 | 36500 | IPCC Fourth Assessment Report (AR4 - 100 year) |
| PFCs | 0 | IPCC Fourth Assessment Report (AR4 - 100 year) |

## **C7.2**

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

|  |  |
| --- | --- |
| **Country/Region** | **Scope 1 emissions (metric tons CO2e)** |
| Japan | 371000 |
| North America | 444000 |
| South America | 39100 |
| Europe | 41400 |
| Asia Pacific (or JAPA) | 304000 |
| China | 179000 |

## **C7.3**

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

By facility

## **C7.3b**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Facility** | **Scope 1 emissions (metric tons CO2e)** | **Latitude** | **Longitude** |
| Ohio, US. | 65500 | 40 | -84 |
| Wuhan, China. | 32800 | 30 | 114 |
| Yorii, Japan. | 29100 | 36 | 139 |
| Wiltshire, UK. | 23700 | 52 | -2 |
| Uttar Pradesh, India | 19800 | 28 | 78 |
| Sao Paulo, Brasil. | 8250 | -23 | -47 |
| Other | 1200000 | 0 | 0 |

## **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 | 700000 | <Not Applicable> |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C7.5**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country/Region** | **Scope 2, location-based (metric tons CO2e)** | **Scope 2, market-based (metric tons CO2e)** | **Purchased and consumed electricity, heat, steam or cooling (MWh)** | **Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)** |
| Japan | 1000000 | 879000 | 1840000 | 8150 |
| North America | 905000 | 1230000 | 2230000 | 0 |
| Europe, the Middle East, Africa and Russia (EMEAR) | 50200 | 14500 | 169000 | 117000 |
| South America | 39300 | 33100 | 300000 | 72700 |
| Asia Pacific (or JAPA) | 1050000 | 1030000 | 1680000 | 59000 |
| China | 644000 | 896000 | 1030000 | 0 |

## **C7.6**

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

By facility

## **C7.6b**

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

|  |  |  |
| --- | --- | --- |
| **Facility** | **Scope 2 location-based emissions (metric tons CO2e)** | **Scope 2, market-based emissions (metric tons CO2e)** |
| Ohio, US. | 95900 | 194000 |
| Wuhan, China. | 103000 | 156000 |
| Yorii, Japan. | 15100 | 13200 |
| Wiltshire, UK. | 29800 | 0 |
| Uttar Pradesh, India | 57400 | 64300 |
| Sao Paulo, Brasil. | 8100 | 0 |
| Other | 3380000 | 3660000 |

## **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 | 1730000 | 2180000 |  |
| 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**

133.9

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

257000000

### **Metric denominator**

t.km

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

86100000000

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

1

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

4890000

### **Vehicle lifetime in years**

18

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

17600

### **Load factor**

Not applicable

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

Emissions calculation method: Automobiles are calculated basis on passenger cars. CO2 emissions are calculated as the product of the following by business and region: number of vehicles sold, CO2 emissions during 1km driving, annual mileage, and years of use. In-house data was used for the number of units sold. CO2 emissions during 1km driving were calculated by weighting the CO2 emissions during 1km driving of each product by the ratio to total sales by region. Annual mileage and use life were set using the "SMP Model" IEA estimation model. Emissions by business and region were calculated as the product of the number of units shipped, emissions per time, annual hours of use, and years of use. In-house data was used for the number of units shipped. The annual operating times were set based on the report (Clean Air Act Committee Report) by the Air Clean up Law Commission of the USA and the results of in-house surveys, and the number of operating hours was set based on the results of in-house surveys. Fuel efficiency: Fuel efficiency values reported to public agencies were used for Japan, the United States, Europe, and China, and in-house measurements in exhaust gas measurement modes were used for Asia-Pacific and South America. ※The above-term useful lives and annual driving distances differ depending on the region. Therefore, the above-mentioned service lives and annual driving distances are listed on the basis of North America with higher sells ratios. Therefore, the Metric denominator is also calculated by the numerical value of North America. Though tonne km is selected, the loading rate is not reflected.

## **C7.9**

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

Decreased

## **C7.9a**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Change in emissions (metric tons CO2e)** | **Direction of change** | **Emissions value (percentage)** | **Please explain calculation** |
| Change in renewable energy consumption | 39900 | Decreased | 0.7 | “Last year 39,900 tCO2e were reduced by a change on our renewable energy consumption, and our total S1 and S2 emissions in the previous year was 5,520,000 tCO2e, therefore we arrived at 0.7% through (39,900/ 5,520,000)\*100= 0.7%” |
| Other emissions reduction activities | 17700 | Decreased | 0.3 | Last year 17,700 tCO2e were reduced by a change on our emission reduction activities, and our total S1 and S2 emissions in the previous year was 5,520,000 tCO2e, therefore we arrived at 0.3% through (17,700/ 5,520,000)\*100= 0.3%. |
| Divestment |  | <Not Applicable> |  |  |
| Acquisitions |  | <Not Applicable> |  |  |
| Mergers |  | <Not Applicable> |  |  |
| Change in output | 166000 | Increased | 3 | Our sales increased by about 3% year on year, with the largest change in Scope1 and 2 volume effect automobile production by about 2% year on year and motorcycle production by about 4%. We, however, believe that GHG emissions from increased production volume increased by only about 0.6% as a result of measures to concentrate plant operations with the purpose of improving plant energy efficiency and measures to reduce fixed energy such as air conditioning and lighting. |
| Change in methodology |  | <Not Applicable> |  |  |
| Change in boundary |  | <Not Applicable> |  |  |
| Change in physical operating conditions |  | <Not Applicable> |  |  |
| Unidentified |  | <Not Applicable> |  |  |
| Other |  | <Not Applicable> |  |  |

## **C7.9b**

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

Market-based

## **C8. Energy**

## **C8.1**

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

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

## **C8.2**

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

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertakes this energy-related activity** |
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | No |
| Consumption of purchased or acquired steam | Yes |
| Consumption of purchased or acquired cooling | No |
| Generation of electricity, heat, steam, or cooling | Yes |

## **C8.2a**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Heating value** | **MWh from renewable sources** | **MWh from non-renewable sources** | **Total MWh** |
| Consumption of fuel (excluding feedstock) | LHV (lower heating value) | 11300 | 6440000 | 6450000 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 257000 | 6980000 | 7240000 |
| Consumption of purchased or acquired heat | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired steam | <Not Applicable> | 0 | 11900 | 11900 |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 52900 | <Not Applicable> | 52900 |
| Total energy consumption | <Not Applicable> | 321200 | 13431900 | 13754800 |

## **C8.2b**

### **(C8.2b) Select the applications of your organization’s consumption of fuel.**

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertakes this fuel application** |
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of heat | Yes |
| Consumption of fuel for the generation of steam | Yes |
| Consumption of fuel for the generation of cooling | Yes |
| Consumption of fuel for co-generation or tri-generation | Yes |

## **C8.2c**

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

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

Natural Gas

### **Heating value**

LHV (lower heating value)

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

3760000

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

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

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

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

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

### **Comment**

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

Town Gas

### **Heating value**

LHV (lower heating value)

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

1070000

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

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

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

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

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

### **Comment**

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

Liquefied Petroleum Gas (LPG)

### **Heating value**

LHV (lower heating value)

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

531000

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

0

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

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

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

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

### **Comment**

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

Diesel

### **Heating value**

LHV (lower heating value)

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

159000

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

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

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

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

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

### **Comment**

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

Motor Gasoline

### **Heating value**

LHV (lower heating value)

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

364000

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

0

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

364000

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

0

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

0

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

0

### **Comment**

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

Liquefied Natural Gas (LNG)

### **Heating value**

LHV (lower heating value)

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

120000

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

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

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

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

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

### **Comment**

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

Crude Oil Heavy

### **Heating value**

LHV (lower heating value)

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

128000

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

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

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

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

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

### **Comment**

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

Coke

### **Heating value**

LHV (lower heating value)

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

68800

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

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

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

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

0

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

### **Comment**

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

Kerosene

### **Heating value**

LHV (lower heating value)

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

34800

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

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

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

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

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

### **Comment**

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

Aviation Gasoline

### **Heating value**

LHV (lower heating value)

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

3610

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

0

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

3610

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

0

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

0

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

0

### **Comment**

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

Jet Gasoline

### **Heating value**

LHV (lower heating value)

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

2900

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

0

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

2900

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

0

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

0

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

0

### **Comment**

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

Other, please specify (Other)

### **Heating value**

LHV (lower heating value)

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

217000

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

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

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

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

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

### **Comment**

## **C8.2d**

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

### **Aviation Gasoline**

### **Emission factor**

0.07

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Coke**

### **Emission factor**

0.107

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Crude Oil Heavy**

### **Emission factor**

0.0733

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Diesel**

### **Emission factor**

0.0741

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Jet Gasoline**

### **Emission factor**

0.0715

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Kerosene**

### **Emission factor**

0.0719

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Liquefied Natural Gas (LNG)**

### **Emission factor**

0.0642

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

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

### **Emission factor**

0.0631

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Motor Gasoline**

### **Emission factor**

0.0693

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Natural Gas**

### **Emission factor**

0.0561

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Town Gas**

### **Emission factor**

0.0561

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year)

### **Comment**

### **Other**

### **Emission factor**

0.07

### **Unit**

metric tons CO2e per GJ

### **Emission factor source**

IPCC Fourth Assessment Report (AR4 - 100year) The values listed above are the representative values.

### **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 | 191000 | 176000 | 68200 | 52900 |
| Heat |  |  | 0 | 0 |
| Steam |  |  | 0 | 0 |
| Cooling |  |  | 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), not supported by energy attribute certificates

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

Solar PV

Wind

Hydropower

### **Region of consumption of low-carbon electricity, heat, steam or cooling**

Other, please specify (Brasil, U.K., India, China, Italy, Japan, etc.)

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

257000

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

0

### **Comment**

## **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**

133.9

### **Metric numerator**

Other, please specify (g-CO2e/km)

### **Metric denominator**

Production: Vehicle

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

654000000

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

4890000

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

-4.2

### **Please explain**

In North America, which accounts for about 37% of the total, medium- and large-sized vehicles increased, so the total amount of emissions increased, but we were able to reduce by 4.2% from the previous year as fuel efficiency improvement progressed well. We will continue to develop and sell products with the goal of reducing 30% by 2020.

## **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**

Fuel cell electric vehicle (FCEV)

### **Metric figure**

216

### **Metric unit**

Units

### **Explanation**

Honda focuses on the development of advanced vehicles, including PHVs, FCVs and EVs that don’t need fossil fuels, not only HVs, using this technology. We are developing vehicles that use CNG and biofuels to meet demand. The above figures are for FCVs as an example. FCVs can be delivered to many consumers by more reasonable prices by diverting platforms to PHVs and EVs. Honda will lead carbon-free societies through these developments.

## **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**

avril 1 2017

### **Investment end date**

mars 31 2018

### **Investment area**

R&D

### **Technology area**

Other, please specify (Whole area)

### **Investment maturity**

Applied research and development

### **Investment figure**

819900000000

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

81-100%

### **Please explain**

Direct and indirect investments are so diverse that they cannot be separated, but are sold by Honda. Since all products are low-carbon products compared to existing ones, Honda considers all annual R&D expenses to be direct investments to low-carbon transition.

## **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**

Underway but not complete for reporting year-previous statement of process attached

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

Limited assurance

### **Attach the statement**

[Honda-SR-2019-en-all.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/NUFlAVP58U-6ZJjhGVsSEQ/HondaSR2019enall.pdf)

[CDP Climate Change 2018 -Honda\_assurance-.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g8nAf7-UfkCHudsNBE3x_Q/CDPClimateChange2018Hondaassurance.pdf)

### **Page/ section reference**

CDP Climate Change 2018 -Honda\_assurance-.pdf P.1 Honda-SR-2019-en-all.pdf P.61,144

### **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**

Underway but not complete for reporting year-previous statement of process attached

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

Limited assurance

### **Attach the statement**

[Honda-SR-2019-en-all.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/NUFlAVP58U-6ZJjhGVsSEQ/HondaSR2019enall.pdf)

[CDP Climate Change 2018 -Honda\_assurance-.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g8nAf7-UfkCHudsNBE3x_Q/CDPClimateChange2018Hondaassurance.pdf)

### **Page/ section reference**

CDP Climate Change 2018 -Honda\_assurance-.pdf P.1 Honda-SR-2019-en-all.pdf P.61,144

### **Relevant standard**

ISAE3000

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

100

### **Scope**

Scope 1

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

Annual process

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

Complete

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

Limited assurance

### **Attach the statement**

[Honda - AE Final VOS - 2018 26Feb19.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/VfU2FEPd1kexOnmrbASvJA/HondaAEFinalVOS201826Feb19.pdf)

### **Page/ section reference**

European Union Emissions Trading System (EU ETS) P.15-17

### **Relevant standard**

European Union Emissions Trading System (EU ETS)

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

2

## **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- at least one applicable category

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

Annual process

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

Underway but not complete for reporting year – previous statement of process attached

### **Attach the statement**

[Honda-SR-2019-en-all.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/NUFlAVP58U-6ZJjhGVsSEQ/HondaSR2019enall.pdf)

[CDP Climate Change 2018 -Honda\_assurance-.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/g8nAf7-UfkCHudsNBE3x_Q/CDPClimateChange2018Hondaassurance.pdf)

### **Page/section reference**

CDP Climate Change 2018 -Honda\_assurance-.pdf P.1 Honda-SR-2019-en-all.pdf P.61,144

### **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?**

No, we do not verify any other climate-related information reported in our CDP disclosure

## **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**

1.8

### **Period start date**

janvier 1 2018

### **Period end date**

décembre 31 2018

### **Allowances allocated**

26100

### **Allowances purchased**

0

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

26100

### **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?**

The basic idea of Honda is to "comply with GHG emission regulations by making maximum efforts to reduce GHG emissions." Therefore, in order to achieve the global long-term targets stipulated in the Kyoto Protocol, etc. and to comply with the laws and regulations of each country, it is essential to build a business that can achieve the GHG reduce goals by its own efforts. These efforts are based on the detailed planning and management system of the GHG management organization described above. For this reason, Honda believes that it is not involved in emissions trading at all unless it is mandated to participate by laws and regulations. In accordance with this Basic Policy, Honda is taking appropriate strategic measures to deal with EU-ETS, which is a Europe law, because participation is essential in the content of the laws and regulations.

## **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?**

No, and we do not currently anticipate doing so in the next two years

## **C12. Engagement**

## **C12.1**

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

Yes, our suppliers

Yes, other partners in the value chain

## **C12.1a**

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

### **Type of engagement**

Information collection (understanding supplier behavior)

### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

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

21.3

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

80

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

14.1

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

The coverage of the suppliers shows suppliers which supplied us their environmental data. We ask all tier 1 suppliers, and coverage depends on whether they respond to our request. In order to promote cooperation with suppliers, Honda has issued Green Purchasing Guidelines for all suppliers and asks them to promote activities to reduce greenhouse gases and other environmental impacts from a lifecycle perspective. Honda has shared targets, progress, and results with suppliers to manage the PDCA. Under the Green Purchasing Guidelines, Honda asks all suppliers to reduce their environmental impact in terms of their lifecycle, including Scopes 1, 2, and 3 emissions. In FY2018, 1,700 suppliers reported us their performance data .

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

Honda is engaging suppliers to report and reduce their GHG emissions through CDP Supply Chain Program, supplemented by our own data collection scheme. We measure the success of this engagement by how the suppliers reduced GHG emissions. As a result of our engagement, emissions from our suppliers decreased by 2% between 2016 and 2017. Honda's purchasing policy is to evaluate suppliers in terms of QCDDE (qualities, costs, delivery dates, developments, and environments). The data are used primarily for:-target in the volumes disclosed by Honda Motor-selection of sustainability awards for the purpose of encouraging suppliers as part of Honda's goal of construct a low-carbon supply chain. In addition, Honda has begun to analyze CO2 emissions from suppliers and datum feedback to each supplier on areas of weakness and progress in reducing CO2 emissions in Japan. Since FY2017, we have been participating in the CDP Supply Chain Programme as a CO2 data capture tool, and in the future, we will transition to feedback through the industry standard CDP. As reported in Honda Sustainability Report, the results were improved by approximately 1% between 2017 and 2018.

### **Comment**

## **C12.1c**

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

Honda engages with transportation companies to reduce their CO2 emissions.

Honda procures and transports many of the components that make up its products from suppliers to plants. The manufactured products are then transported from the plant to the dealer. In addition, we transport parts between plants and repair parts to dealers. For a Honda that transports large quantities from upstream to downstream in the production process, improving logistical efficiencies, reducing environmental impacts, compliance, and risk management are crucial challenges. Therefore, we need to cooperate with suppliers and dealers in order to reduce CO2 emissions in logistics.

In India, for example, we are working to increase the efficiency of transport of finished vehicles from plants to dealers in light of road and traffic conditions and commercial practices. Traditionally, CO2 emissions were generated from retailers‘ roundtrips to and from each sales, because they used small trucks to ship to each retailer on an order-by-order basis. From the end of 2018, we established an approach to ship all vehicles sold in the same region with large trucks through discussions with transportation companies and dealers. This reduced its CO2 emissions by about 6,226 tons per year.

## **C12.3**

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

Direct engagement with policy makers

Trade associations

## **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** |
| Clean energy generation | Support | In 2016, Honda installed a Smart Hydrogen Station in Odaiba, Tokyo, with a filling pressure of 70 MPa, using Honda's proprietary high-pressure water electrolysis technology. The Smart Hydrogen Station started a substantiate business for the Ministry of the Environment of Japan to development and demonstrate an inductive technology to enhancement measures to reduce CO2 emissions. This is the first hydrogen production station in the world. This business purposes to clarify the potential problems of current laws and regulations for construct a hydrogen society in the future, and to propose a social system that can utilize hydrogen as a sustainable alternative energy. i) [Examples of relevant laws and regulations and challenges identified through business] 1. High Pressure Gas Safety Law: The safety standards for small-cost compressed hydrogen stations have been clarified. There is, however, no small-scale compressed hydrogen station standard for 70 MPa as proposed in this business, and the provision of distances away from the boundary of the site is too strict. Therefore, the construction of hydrogen stations for this project in urban areas is an unnecessarily expensive factor. 2. Building Standards Law: The Ministry of Land, Infrastructure, Transport and Tourism has notified technical advice on the operation of compressed hydrogen production licenses at small-scale hydrogen stations. The area where hydrogen stations are built is stipulated by laws and regulations, making it difficult to secure the number or density of hydrogen stations necessary for realizing a hydrogen society. ii)[Institutional Challenges Disclosed Through the Business] The issue was taken up as the agenda of the Meeting for Regulatory and Institutional Reforms established in the Cabinet Office of Japan, and the safety standards for small-scale compressed hydrogen stations were clarified. We continue to discussfor further review. Honda supports the activities of the Government of Japan in connection with this business. | Systematic challenges related to the High Pressure Gas Safety Law and the Building Standards Law, which have been clarified through this commissioned business, have been taken up as the agenda of the Meeting for Regulatory and Institutional Reforms established in the Cabinet Office of Japan, and discussions are currently underway for a review. Honda make it clear that it supports the activities of the Government of Japan in connection with the Consignment Business. |

## **C12.3b**

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

Yes

## **C12.3c**

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

### **Trade association**

Japan Automobile Manufacturers Association, Inc.

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Japan Automobile Manufacturers Association (JAMA)'s environmental stance regards global warming countermeasures, particularly by reducing CO2 emissions, as an urgent challenge. Aiming to realize a low-carbon society, we are continuing to actively take measures to reduce CO2 emissions, such as countermeasures against global warming in the road traffic area. ■ Supports the consider and formulation of JAMA stances on compliance with domestic fuel efficiency standards (passenger cars: 2020/light trucks: 2022). ・Activities to deepen the understanding of relationship ministries and agencies (including the Ministry of the Environment, the Ministry of Land, Infrastructure, Transport and Tourism, and the Ministry of Economic, Trade and Industry). Assertion of JAMA opinions at the Fuel Economy Standards Review Meeting. It also supports the formulation of standards for the next Domestic Fuel Economy Standards Post2020. ■ Activities to deepen understanding of the European Commission and the Europe Assembly, etc. by responding to Europe's CO2 regulations (2021); evaluating the effect of target values; consider JAMA stances; supporting and cooperating with the ACEA; taking measures to prevent global warming; participating in Keidanren's Voluntary Action Plan for Reducing CO2 Emissions; and proposing initiatives to reduce CO2 emissions from production processes. ■ Responding to the introduction of low-GWP refrigerants for car air conditioners in Japan, and improving environments where low-GWP refrigerants can be introduced smoothly. ■ Summarizing recommendations for reducing CO2 emissions in the global road transport sector.

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

Honda is a member of the JAMA's Board of Directors, and proposes Honda's views and opinions to policymakers around the world through JAMA. As one of the examples in the outline of our activities, when consider Japan's 2020 Fuel Economy Standards and Europe CO2 Emissions Regulations, we made predictions on the evolution of automotive technologies, fuel economy improvement projections, technology apply rates, etc., and then made proposes to JAMA that are technically realisable and cost-effective and appropriate.

### **Trade association**

Association of global Automakers

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

Global Automakers' members strongly support and are aggressively pursuing innovative ways to reduce CO2 emissions to protect the environment and lessen the nation's reliance on fossil fuels.

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

Active engagement both at the Board level, and with Global Automakers' executive management and staff. Active participation on relevant member committees with other Global Automakers member companies, helping steer trade association public positions and comments.

## **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?**

Honda adopts common approaches to manage all collaborative climate-change activities undertaken in different business sectors and regions. Details of these activities are reported through the the Sustainability Strategy Committee to the Board of Directors, including the Representative Directors, to ensure that corporate directions in climate change are consistent with Honda Environmental Statement. In response, BIMs (Business Information Meeting), which are conducted in various regions, formulate policies while grasping local laws and regulations and trends. The PDCA is then held, and the results are reported at each regional Environmental Committee. Details of each activity are managed by regional environmental conferences.

## **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**

[FY201903\_form20f\_e.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/YaHRTz7OC0im0vgKco8oWA/FY201903form20fe.pdf)

### **Page/Section reference**

P.2-26

### **Content elements**

Governance

Strategy

Risks & opportunities

Emission targets

Other metrics

### **Comment**

### **Publication**

In voluntary sustainability report

### **Status**

Complete

### **Attach the document**

[Honda-SR-2019-en-all.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/NUFlAVP58U-6ZJjhGVsSEQ/HondaSR2019enall.pdf)

### **Page/Section reference**

P41-66, P.118-134

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

### **Comment**

## **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 | CEO | Chief Executive Officer (CEO) |