# **Mitsubishi Motors Corporation - Climate Change 2020**

## **C0. Introduction**

## **C0.1**

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

Mitsubishi Motors Corporation (MMC) was established as an independent company from Mitsubishi Heavy Industries, Ltd. in 1970. Currently MMC (including its consolidated subsidiaries) manufactures vehicles in four countries. Its total number of employees on a consolidated basis is 31,919 (FY2019). In FY2019 MMC sold a total of 1.127 million vehicles, earning sales revenue of 2.2703 triillion yen.

In 2009, it launched i-MiEV, the world’s first mass produced electric vehicle and in 2013, it launched the Outlander PHEV, a plugin hybrid vehicle. It has been a member of the Renault-Nissan alliance since October 2016.

## **C0.2**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Start date** | **End date** | **Indicate if you are providing emissions data for past reporting years** | **Select the number of past reporting years you will be providing emissions data for** |
| Reporting year | April 1 2019 | March 31 2020 | No | <Not Applicable> |

## **C0.3**

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

Australia

China

Germany

Indonesia

Japan

Netherlands

New Zealand

Philippines

Puerto Rico

Thailand

United Arab Emirates

United States of America

## **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 chosen approach for consolidating your GHG inventory.**

Financial control

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

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

Light Duty Vehicles (LDV)

## **C1. Governance**

## **C1.1**

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

Yes

## **C1.1a**

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

|  |  |
| --- | --- |
| **Position of individual(s)** | **Please explain** |
| Chief Executive Officer (CEO) | The person on the Board of Directors responsible for climate change issues is the CEO, who is also a member of the Board of Directors. The key responsibility of the Board of Directors relating to climate change is deciding on medium to long-term GHG emission reduction targets, etc., as resolutions of the board. In FY2019 a draft proposal of medium to long-term GHG emission reduction targets was reported to the board. By the end of FY2020 a final draft is expected to be submitted and approved by the board. MMC has set up a Sustainability Committee, chaired by the CEO, to identify material CSR issues (materiality), set KPI for each material issue, and to promote sustainability by means of a PDCA cycle. “Responding to climate change and energy issues” is one of the most important material issues (materiality). Important items relating to sustainability activities, including climate-related issues, are reported to the Board of Directors by the CEO, to be resoluted. |

## **C1.1b**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Frequency with which climate-related issues are a scheduled agenda item** | **Governance mechanisms into which climate-related issues are integrated** | **Scope of board-level oversight** | **Please explain** |
| Scheduled – some meetings | Reviewing and guiding strategy  Reviewing and guiding major plans of action  Reviewing and guiding business plans  Setting performance objectives  Monitoring implementation and performance of objectives  Monitoring and overseeing progress against goals and targets for addressing climate-related issues | <Not Applicable> | As a rule, the CEO (as chairperson of the Sustainability Committee) reports on sustainability matters, including climate change, to the Board of Directors every quarter. The board then oversees these matters through deliberations and resolutions. The matters for reporting and resolution include company-wide policies relating to sustainability and the results and issues of activities connected to material CSR issues (Materiality). In the reporting year, a draft proposal of medium and long-term GHG emission reduction targets was reported to the board. |

## **C1.2**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the position(s) and/or committee(s)** | **Reporting line** | **Responsibility** | **Coverage of responsibility** | **Frequency of reporting to the board on climate-related issues** |
| Chief Executive Officer (CEO) | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | 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).**

As the chief management executive, the CEO is entrusted by the Board of Directors with the responsibility for overall management of the company, as well as the authority and responsibility for decision-making related to the formulation and execution of business strategy. The Executive Committee is set up directly under the Board of Directors as an executive decision-making body. Furthermore, directly under the Executive Committee there is the Sustainability Committee, chaired by the CEO, which strives to promote sustainability initiatives and to improve information disclosure for the purpose of increasing non-financial value. As a rule, the Sustainability Committee is held four times a year, to assess and formulate measures to counter climate change risks and opportunities through to 2050, as identified by the Environmental Working Group (Environmental WG), which deals with environmental issues, made up of members of the Development Division and Production Division under the Sustainability Committee. The Sustainability Committee also assigns responsibilities for addressing particular risks to executive officer-class managers, sets KPI, and implements PDCA cycles. Assessments and countermeasure proposals are reported by the leader of the Environmental WG (Technical Advisor to MMC chairperson) to the Board of Directors.

## **C1.3**

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

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

## **C1.3a**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Entitled to incentive** | **Type of incentive** | **Activity inventivized** | **Comment** |
| All employees | Monetary reward | Emissions reduction project | MMC offers a commuting allowance to employees who drive to work in EVs manufactured by MMC, both to help reduce the CO2 emissions of employees and to promote our EVs outside the company. |

## **C2. Risks and opportunities**

## **C2.1**

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

Yes

## **C2.1a**

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **From (years)** | **To (years)** | **Comment** |
| Short-term | 0 | 1 |  |
| Medium-term | 1 | 10 |  |
| Long-term | 10 | 30 |  |

## **C2.1b**

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

MMC defines the degree of the impact of climate change risks on its business by the magnitude of economic losses, the period of business suspension, and the impact of media exposure.

For example, the impact of business suspension is defined as follows.

High risk: 1 week or more of business suspension, medium risk: several days to 1 week of business suspension, and low risk: 0 to several days of business suspension.

## **C2.2**

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

### **Value chain stage(s) covered**

Direct operations

Upstream

Downstream

### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

### **Frequency of assessment**

More than once a year

### **Time horizon(s) covered**

Short-term

Medium-term

Long-term

### **Description of process**

As a rule, the MMC Sustainability Committee is held four times a year, for the purpose of promoting company-wide sustainability initiatives. The Environmental Working Group (Environmental WG), which deals with environmental issues, made up of Development Division and Production Division members under the Sustainability Committee identifies and assesses climate change-related risks and opportunities through to 2050. The Environmental WG collects various kinds of data, for example on changes in global society due to economic and population growth, on projected increases in mean temperature, and on increasing frequency of disasters. With reference to these data and based on various problems resulting from climate change, such as increasingly frequent occurrence of natural disasters in the coming decades, etc., and these potential impact on MMC, the WG identifies and assesses factors of these risks and opportunities to MMC and examines appropriate response measures. The results are reported to the Sustainability Committee, chaired by the CEO, which then assigns executive officer-class managers to take responsibility for particular response measures, sets KPI, and implements PDCA cycles. The assessments and response measures are reported by the CEO to the Board of Directors each quarter. (Physical risk) In the past, when natural disasters have occurred in Thailand and Japan, MMC suffered delays in the supply of parts to its production plants. Torrential rains in Japan in 2017 caused a loss of approximately ¥1.4 billion to MMC’s operating profit. The Sustainability Committee identifies and assesses the potential impacts of MMC’s supply chains due to natural disasters as physical risks by using data on projected rises in mean temperature, increases in disaster frequency, etc. To prepare for the risk of supply chain disruption, we worked to formulate BCPs for our suppliers. We have now completed the formulation of BCPs for all our main parts suppliers. (Transition risk) If MMC’s products cannot meet the fuel consumption standards of countries in which the company does business, we may be subjected to financial penalties. The Sustainability Committee identifies and assesses the potential impacts of regulations relating to fuel consumption and vehicle CO2 emissions as transition risks, by using data on projected rises in mean temperature, market changes, etc. To address such regulatory risks, MMC is working to develop technology aimed at improving the fuel economy for conventional gasoline engine vehicles and improving the electrical power consumption for electric vehicles. Since our electric vehicles, such as Outlander PHEV, have the environmental performance to meet fuel consumption standards, the technology is effective in countering this regulatory risk. Thus, in FY2019 MMC invested approximately ¥130 billion in environmental technologies, including R&D on electric vehicles.

## **C2.2a**

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

|  |  |  |
| --- | --- | --- |
|  | **Relevance & inclusion** | **Please explain** |
| Current regulation | Relevant, always included | The CO2 emitted by vehicles is a major cause of climate change. For this reason, Japan, the EU, and other countries and regions have instituted regulations relating to fuel consumption and CO2 emissions, as a way to promote greater adoption of low-emission vehicles. The regulations in these countries in which MMC does business can impact the company’s sales performance. For example, EU, where MMC sells products, is expected to introduce stricter regulations that is 15% stronger than current regulations on CO2 emissions in 2025. Furthermore, in 2030, it is expected to introduce stricter regulations that is 22.5% stronger for a segment of passenger vehicle and 16% for a segment of commercial vehicle than 2025 regulations. If MMC cannot meet the fuel consumption standards of EU, it may face financial penalties amounting to approximately 95 € every 1g of CO2 emitted when a vehicle driving 1 km. |
| Emerging regulation | Relevant, always included | CO2 emissions from running vehicles are recognized as one of the major causes of climate change. As a climate change countermeasure, each country has established regulations governing the fuel efficiency and CO2 emissions of vehicles. MMC sells most of its motor vehicles in Japan, North America, Europe, and China, as well as in the ASEAN markets. If new regulations relating to fuel consumption or CO2 emissions are imposed in the coming years, especially in the ASEAN countries that are our strongest markets (Thailand, Philippines, and Indonesia), our sales in the ASEAN countries results may be adversely impacted, due to restrictions on the sale of gasoline and diesel vehicles for example. In a scenario analysis we conducted, we considered, as a social change factor, increasingly strict regulations, such as obligating motor vehicle manufacturers to sell above a certain proportion of ZEVs (Zero Emission Vehicles). MMC’s operations may also be adversely impacted if tougher GHG emission regulations (e.g., internal carbon pricing) for production and office facilities are introduced in the countries and regions where the company does business. |
| Technology | Relevant, always included | Due to increasing public concern about the issue of climate change, some countries and regions are actively promoting a shift away from conventional vehicles with engines that emit CO2 towards EVs. Norway, for example, where MMC sells approximately 5,000 vehicles per year, has set itself the goal of 100% ZEVs (Zero Emission Vehicles) that do not emit any exhaust gases by 2025. If we fall behind in the development of EV technology, it will be difficult to sell MMC products in such regions, putting at risk the company’s total sales. In the scenario analysis, MMC took into account the spread of EV technology as an anticipated social change. |
| Legal | Relevant, always included | As the environmental awareness of stakeholders increases, consumers will increasingly tend to choose eco-friendly EVs like MMC’s Outlander PHEV when they consider the purchase of a new vehicle. However, some countries and regions are still in the early growth phase as EV markets. For this reason, there is a risk that a major lawsuit relating to EVs (e.g., concerning battery life or range) in countries or regions where MMC sells its products could cause damage to the trust of MMC products. |
| Market | Relevant, always included | With the adoption of the Paris Agreement, the environmental consciousness of stakeholders grew all over the world. More and more consumers have also been choosing environmental friendly EVs to avoid gasoline and diesel-powered vehicles. We believe that such changes in consumer attitude and behavior will impact on MMC’s product sales. In the scenario analysis that MMC has implemented, this kind of market risk is taken into account as a real possibility in the future, along with climate-related risks such as the intensification of natural disasters. |
| Reputation | Relevant, always included | Due to the progression in climate change, customer needs for environmental considerations to be taken into account by companies and ESG investment opportunities are expanding. In light of this social trend, if stakeholders regard MMC’s efforts to combat climate change by introducing EVs and utilizing renewable energy and to promote information disclosure as inadequate, the company’s reputation will suffer. As a result, the value of the company may decline, leading to divestment. |
| Acute physical | Relevant, always included | In recent years, rising sea surface temperatures caused by climate change have made sudden torrential downpours an increasingly frequent occurrence in many parts of the world. In countries or regions where MMC has production facilities, this kind of disaster, which puts at risk human lives and company activities, could cause the disruption to our operations and supply chains. In fact, the severe floods that hit western Japan in July 2018 damaged MMC production plants and the facilities of some of its suppliers, impacting the company’s operations. The scenario analysis that MMC conducted assumed an intensification of natural disasters in the future, taking into account the risks of damage from such disasters, e.g., physical damage to the company’s supply chain and interruption of operations. |
| Chronic physical | Relevant, always included | If the mean temperature in countries and regions where MMC operates increases as a result of advancing climate change, the cost of air conditioning the company’s buildings may increase, resulting in higher energy costs and consequently also higher business costs. Furthermore, we also see a risk to business continuity due to the possible flooding of production plants and other company facilities as a result of rising sea levels. |

## **C2.3**

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

Yes

## **C2.3a**

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

### **Identifier**

Risk 1

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

Direct operations

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

|  |  |
| --- | --- |
| Emerging regulation | Mandates on and regulation of existing products and services |

### **Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

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

<Not Applicable>

### **Company-specific description**

With the progress of climate change, MMC needs to meet regulations relating to fuel consumption and CO2 emissions. For example, EU, where MMC sells products, is expected to introduce stricter regulations that is 15% stronger than current regulations on CO2 emissions in 2025. Furthermore, in 2030, it is expected to introduce stricter regulations that is 22.5% stronger for a segment of passenger vehicle and 16% for a segment of commercial vehicle than 2025 regulations. If MMC cannot meet the fuel consumption standards of EU, it may face financial penalties amounting to approximately 95 € every 1g of CO2 emitted when a vehicle driving 1 km. To adapt to these regulations, we drive to both improve our combustion engine vehicles and spread Outlander PHEV and other EVs widely.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

2500000000

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

<Not Applicable>

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

<Not Applicable>

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

In EU, where MMC sells products, it may face financial penalties amounting to approximately 95 € (11,400 yen) every 1g of CO2 emitted when a vehicle driving 1 km if MMC cannot meet the fuel consumption standards. It sells approximately 200 thousand vehicles in EU, so estimated financial penalties amounting is 2.5 billion yen. Calculation formula: €95 × 215,000 vehicles (sold in Europe in FY2019) = €20.425 million (approx. ¥2.5 billion at ¥120/€)

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

130000000000

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

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019) in PHEV category.

### **Comment**

### **Identifier**

Risk 2

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

Downstream

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

|  |  |
| --- | --- |
| Market | Changing customer behavior |

### **Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

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

<Not Applicable>

### **Company-specific description**

Since the signing of the Paris Agreement, the level of climate change awareness amongst stakeholders has risen substantially. Motor vehicles are recognized as one of the principal sources of GHG emissions, so consumers are increasingly making the environmentally sensitive choice of purchasing EVs to avoid gasoline and diesel vehicles. We believe this change in the consciousness and behavior of consumers is impacting our sales. MMC sells most of its vehicles in Japan, Europe, North America, and the ASEAN region, so if demand for gasoline and diesel vehicles slumps, particularly in the ASEAN countries that serve as our main markets (Thailand, Philippines, and Indonesia), and if we are slow to develop EVs and other low-carbon products, we may face the risk of declining demand for our products and consequently lower sales.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

5519000000

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

<Not Applicable>

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

<Not Applicable>

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

Changes in the consciousness and behavior of consumers may impact MMC’s sales. If demand for gasoline and diesel vehicles slumps, particularly in the ASEAN countries that serve as our main markets (Thailand, Philippines, and Indonesia), and if we are also slow to develop EVs and other low-carbon products, we may face the risk of declining demand for our products. If vehicle sales in the ASEAN region were to increase by 1%, this would represent a financial impact of ¥5.519 billion. Calculation formula: ¥551.9 billion (total FY2019 sales in ASEAN) × 0.01 = ¥5.519 billion

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

130000000000

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

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019) in PHEV category.

### **Comment**

### **Identifier**

Risk 3

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

Upstream

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

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

### **Primary potential financial impact**

Decreased revenues due to reduced production capacity

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

<Not Applicable>

### **Company-specific description**

In recent years, rising sea surface temperatures caused by climate change have made sudden torrential downpours an increasingly frequent occurrence in many parts of the world. In countries or regions where MMC has production facilities, this kind of disaster, which puts at risk human lives and company activities, could cause the disruption to our operations and supply chains. In fact, the severe floods that hit western Japan in July 2018 damaged MMC production plants and the facilities of some of its suppliers, causing delays in the supply of parts to MMC plants and impacting the company’s operations.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

4200000000

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

<Not Applicable>

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

<Not Applicable>

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

The severe floods that hit western Japan in July 2018 caused severe damage to MMC’s Mizushima Plant and the facilities of some of its suppliers. Operations were stopped for one week, resulting in a loss in operating profit of ¥1.4 billion. If a similar disaster were to occur at our major production plants in Japan, the loss could amount to ¥4.2 billion. Calculation formula: ¥1.4 billion × 3 (the number of major plants in Japan) = ¥4.2 billion

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

10800000

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

To counter the risk of supply chain disruption, MMC has completed the formulation of BCPs for its main parts suppliers. As part of these BCPs, we prepared a manual for the dispatch of advance parties and recovery teams as well as equipment and material lists, to enable suppliers to rapidly implement countermeasures to restore operations rapidly in the event of a disaster. To monitor its suppliers, the Company shares applicable systems and requires suppliers to report immediately on site status in the event of a disaster. The annual charge for using this system is ¥10.8 million. In addition, use of the supply chain information management system enables better visualization of supplier information (e.g., current location, handled products) on secondary and lower level suppliers. The visualization of the information enables to build a system which allows us to quickly understand the information and risks.

### **Comment**

### **Identifier**

Risk 4

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

Direct operations

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

|  |  |
| --- | --- |
| Chronic physical | Rising mean temperatures |

### **Primary potential financial impact**

Increased indirect (operating) costs

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

<Not Applicable>

### **Company-specific description**

If the mean temperature in countries and regions where MMC operates increases as a result of advancing climate change, the energy costs of air conditioning the company’s buildings may increase, leading to higher business costs.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

Medium

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

Yes, a single figure estimate

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

156000000

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

<Not Applicable>

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

<Not Applicable>

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

If the mean temperature in countries and regions where MMC operates increases as a result of advancing climate change, it will be necessary to upgrade the air conditioning in the company’s buildings, to protect the health of employees and maintain a pleasant workplace environment. This may lead to higher costs for the operation of air conditioning. If energy consumption at our principal facilities in Japan were to increase by 1%, this would represent a financial impact of ¥156 million. (The unit price of energy is calculated at ¥15/kWh.) Calculation formula: 1,039,472 MWh of energy (total FY2019 energy consumption at Japan principle facilities) × ¥15/kWh × 0.01 ≒ ¥156 million

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

107900000000

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

MMC is taking a variety of measures to reduce GHG emissions from its production plants and offices, such as reducing energy consumption and generating its own electric power. At our Okazaki Plant in Japan, for example, we not only installed a large-scale PV solar generation system, but also constructed and verified a power storage system utilizing recycled Outlander PHEV batteries. By converting to renewable energy in this way, we can reduce the CO2 emissions and peak power consumption of the plant. In FY2019 MMC invested ¥107.9 billion on plant and equipment, including energy-saving and renewable energy-related facilities.

### **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?**

Downstream

### **Opportunity type**

Products and services

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

Other, please specify (Consumer incentives through policy (subsidies))

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Since MMC’s i-MiEV and plug-in hybrid Outlander PHEV do not emit any CO2 when driving with electric power, their environmental performance easily exceeds fuel consumption standards. In recognition of this environmental performance, some countries even offer subsidies for the purchase of MMC’s EVs. Japan, for example, offers a ¥200,000 rebate on the purchase of the Outlander PHEV, as part of its climate change policy (FY2019). Thanks to its original EVs and electrification technology, MMC can expect to be highly competitive in meeting fuel consumption regulations, and also in consumer purchase preferences, due to the offer of rebates or other incentives. We regard the potential to increase MMC vehicle sales due to more favorable consumer preference as a major opportunity for the company.

### **Time horizon**

Medium-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)**

79500000000

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

<Not Applicable>

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

<Not Applicable>

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

Due to its excellent environmental performance, the Outlander PHEV qualifies for government purchase subsidies in Japan, Canada and so on. In FY2019, the Company sold 50,000 Outlander PHEVs over the world. Potential financial imapct (79.5billion yen) was culculated from the proportion of the market which has incentive program etc.

### **Cost to realize opportunity**

130000000000

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

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019) in PHEV category.

### **Comment**

### **Identifier**

Opp2

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

Downstream

### **Opportunity type**

Products and services

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

Development and/or expansion of low emission goods and services

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Since the signing of the Paris Agreement, climate change awareness amongst stakeholders has risen sharply and consumers are increasingly making environmentally sensitive choices, such as purchasing EVs. MMC sells most of its vehicles in Japan, Europe, North America, and the ASEAN region, with the ASEAN countries that serve as our main market (Thailand, Philippines, and Indonesia) accounting for approximately 25% of total vehicle sales in FY2019. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV, recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019). We believe that increasing demand for EVs in the coming years in the ASEAN region will lead to an increase in unit sales and sales revenue for MMC.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

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

Yes, a single figure estimate

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

5519000000

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

<Not Applicable>

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

<Not Applicable>

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

Changes in the consciousness and behavior of consumers may impact MMC’s sales. We believe that increasing demand for EVs in the coming years, particularly in the ASEAN countries that serve as our main market (Thailand, Philippines, Indonesia) will lead to an increase in unit sales and sales revenue for MMC. If vehicle sales in the ASEAN region were to increase by 1%, this would represent a financial impact of ¥5.519 billion. Calculation formula: ¥551.9 billion (total FY2019 sales in ASEAN) × 0.01 = ¥5.519 billion

### **Cost to realize opportunity**

130000000000

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

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019) in PHEV category.

### **Comment**

### **Identifier**

Opp3

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

Downstream

### **Opportunity type**

Products and services

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

Development of climate adaptation, resilience and insurance risk solutions

### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

### **Company-specific description**

Japan has suffered repeatedly from disasters attributed to climate change. As a result, increasing importance is now being placed on trying to build social systems capable of preventing human fatalities and of enabling rapid recovery in the event of a disaster. When a disaster occurs, it becomes difficult to acquire gasoline or other fuels, so people struggle to find any means of transportation. In this event, EVs can play a valuable role as a means of transportation, since electricity is typically one of the first lifeline services to be restored. Since the first release of MMC’s Outlander PHEV, for example, we have continued to work on improving its driving range. The current model is capable of traveling 65 km solely on electric power.

### **Time horizon**

Medium-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)**

4600000000

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

<Not Applicable>

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

<Not Applicable>

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

If MMC vehicle sales in Japan were to increase by 1%, the financial impact would be ¥4.6 billion. Calculation formula: ¥460 billion (FY2019 total sales in Japan) × 0.01 = ¥4.6 billion

### **Cost to realize opportunity**

130000000000

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

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. MMC sells many EVs, mostly in Japan and Europe, including its Outlander PHEV recording the world’s top cumulative sales (Jan. 2013 to Dec. 2019) in PHEV category.

### **Comment**

## **C3. Business Strategy**

## **C3.1**

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

Yes

## **C3.1a**

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

Yes, qualitative

## **C3.1b**

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

|  |  |
| --- | --- |
| **Climate-related scenarios and models applied** | **Details** |
| 2DS  Other, please specify (4DS) | Summary of the results MMC has conducted scenario analysis processes. The time axis of our scenarios extends to 2030. This refers to the period required by the international SBT (Science Based Targets) initiative for deciding that a company’s GHG reduction targets conform scientifically to the targets of the Paris Agreement. Some detail of the scenario analysis conducted by MMC is given below. Methodology: The scenarios used by MMC for analysis are 2DS and 4DS (2-degree and 4-degree scenario). • Under 2DS, we assumed that the frequency of natural disasters (in terms of damage value) is about the same as at present and that the adoption of renewable energy and the penetration of EVs are growing steadily due to stricter climate change-related regulations. More specifically, we assumed that the proportion of Japan’s energy consumption from renewables increases to 22% and that annual global sales of EVs increase to 17.6 million units. • Under 4DS we assumed that the cost of fossil fuels increases, that the frequency and financial cost of natural disasters also increases, and that the spread of EVs continues at the present rate. More specifically, we assumed that petroleum becomes 2.5 times more expensive and that natural disasters occur 3.5 times more frequently. Analysis results • Impact on business under 2DS: ：We believe that an increase in energy procurement costs poses a risk to us. At the same time, the widespread penetration of EVs due to the increasing environmental consciousness of consumers presents an opportunity for us, by helping us increase our market share for example. • Impact on business under 4DS: We expect that as natural disasters occur with increasing frequency, the operations of our suppliers are more likely to be disrupted due to physical damage, leading to a higher risk of us suffering reduced earnings. On the other hand, the growing demand for EVs that can serve as an emergency power source presents an opportunity for us. The above analysis results have influenced the details of our medium-term management plan and long-term strategy for the environment. Impact on business (case studies) Based on the above analysis results, MMC is systematically proceeding to examine the formulation of new environmental policies “Environmental Vision 2050” linked to business plans, and the setting of targets for 2030 (electrification rate, reducing amount of CO2 emitted by new vehicles, reducing amount of CO2 emitted by business activities, and adaptation to climate change), under the leadership of the CEO. |

## **C3.1d**

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

|  |  |  |
| --- | --- | --- |
|  | **Have climate-related risks and opportunities influenced your strategy in this area?** | **Description of influence** |
| Products and services | Yes | With the progress of climate change, MMC needs to meet regulations relating to fuel consumption and CO2 emissions. For example, EU, where MMC sells products, is expected to introduce stricter regulations that is 15% stronger than current regulations on CO2 emissions in 2025. Furthermore, in 2030, it is expected to introduce stricter regulations that is 22.5% stronger for a segment of passenger vehicle and 16% for a segment of commercial vehicle than 2025 regulations. These regulations relating to fuel consumption and CO2 emissions are influencing MMC’s strategy. In addition, since MMC’s i-MiEV and plug-in hybrid Outlander PHEV do not emit any CO2 when driving with electric power, their environmental performance easily exceeds fuel consumption standards. In recognition of this environmental performance, some countries even offer subsidies for the purchase of MMC’s EVs. Japan, for example, offers a ¥200,000 rebate on the purchase of the Outlander PHEV, as part of its climate change policy (FY2019). Thanks to its original EVs and electrification technology, MMC can expect to be highly competitive in meeting fuel consumption regulations, and also in consumer purchase preferences, due to the offer of rebates or other incentives. We regard the potential to increase MMC vehicle sales due to more favorable consumer preference as a major opportunity for the company. Due to its excellent environmental performance, the Outlander PHEV qualifies for government purchase subsidies in Japan, Canada and so on. In FY2019, the Company sold 50,000 Outlander PHEVs over the world. Potential financial imapct (79.5billion yen) was culculated from the proportion of the market which has incentive program etc. The magnitude of this impact is “High." The time scale is assumed to be medium term (to 2030). |
| Supply chain and/or value chain | Yes | Due to the increase in sea surface temperature caused by climate change, at many places around the world in recent years tropical cyclones and tornadoes that pose threats to human life and corporate activities have occurred with increasing frequency. For this reason, there is a risk that the operations of MMC’s suppliers may be disrupted as a result of disaster. In fact, the severe floods that hit western Japan in July 2018 damaged MMC production plants and the facilities of some of its suppliers, resulting in a loss of approximately ¥1.4 billion in operating profit to MMC. If similar damage occurred at our major plants in Japan, we could suffer a loss of ¥4.2 billion, resulting in a “High” financial impact. The time scale is assumed to be medium term (to 2030). |
| Investment in R&D | Yes | We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. The magnitude of this impact is “High." The time scale is assumed to be medium term (to 2030). |
| Operations | Yes | If the mean temperature in countries and regions where MMC operates increases as a result of advancing climate change, the cost of air conditioning the company’s buildings may increase, resulting in higher energy costs and consequently also higher business costs. Furthermore, we also see a risk to business continuity due to the possible flooding of production plants and other company facilities as a result of rising sea levels. To counter such a risk, we are promoting a shift to renewable energy at our production plants (e.g., in FY2019 we installed PV solar panels at Okazaki Plant in Japan), but the cost of such measures leads to higher business costs. In FY2019, MMC invested ¥156 million in countermeasures. The magnitude of this impact is “Medium."The time scale is assumed to be medium term (to 2030). |

## **C3.1e**

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

|  |  |  |
| --- | --- | --- |
|  | **Financial planning elements that have been influenced** | **Description of influence** |
| Row 1 | Revenues  Indirect costs  Capital allocation | With the progress of climate change, MMC needs to meet regulations relating to fuel consumption and CO2 emissions. For example, EU, where MMC sells products, is expected to introduce stricter regulations that is 15% stronger than current regulations on CO2 emissions in 2025. Furthermore, in 2030, it is expected to introduce stricter regulations that is 22.5% stronger for a segment of passenger vehicle and 16% for a segment of commercial vehicle than 2025 regulations. These regulations relating to fuel consumption and CO2 emissions are influencing MMC’s strategy. In addition, since MMC’s i-MiEV and plug-in hybrid Outlander PHEV do not emit any CO2 when driving with electric power, their environmental performance easily exceeds fuel consumption standards. In recognition of this environmental performance, some countries even offer subsidies for the purchase of MMC’s EVs. Japan, for example, offers a ¥200,000 rebate on the purchase of the Outlander PHEV, as part of its climate change policy (FY2019). Thanks to its original EVs and electrification technology, MMC can expect to be highly competitive in meeting fuel consumption regulations, and also in consumer purchase preferences, due to the offer of rebates or other incentives. We regard the potential to increase MMC vehicle sales due to more favorable consumer preference as a major opportunity for the company. Due to its excellent environmental performance, the Outlander PHEV qualifies for government purchase subsidies in Japan, Canada and so on. In FY2019, the Company sold 50,000 Outlander PHEVs over the world. Potential financial imapct (79.5billion yen) was culculated from the proportion of the market which has incentive program etc. The magnitude of this impact is “High." The time scale is assumed to be medium term (to 2030). If the mean temperature in countries and regions where MMC operates increases as a result of advancing climate change, the cost of air conditioning the company’s buildings may increase, resulting in higher energy costs and consequently also higher business costs. Furthermore, we also see a risk to business continuity due to the possible flooding of production plants and other company facilities as a result of rising sea levels. To counter such a risk, we are promoting a shift to renewable energy at our production plants (e.g., in FY2019 we installed PV solar panels at Okazaki Plant in Japan), but the cost of such measures leads to higher business costs. In FY2019, MMC invested ¥156 million in countermeasures. The magnitude of this impact is “Medium."The time scale is assumed to be medium term (to 2030). < Capital allocation > MMC sells most of its motor vehicles in Japan, North America, Europe, and China, as well as in the ASEAN markets. If new regulations relating to fuel consumption or CO2 emissions are imposed in the coming years, especially in the ASEAN countries that are our strongest markets (Thailand, Philippines, and Indonesia), our sales in the ASEAN countries results may be adversely impacted, due to restrictions on the sale of gasoline and diesel vehicles for example. For this reason, MMC is working to improve the fuel consumption of gasoline cars and to increase the capacity of its EV batteries and we are incorporating such initiatives into our financial planning as R&D expenses for environmental action. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs. The magnitude of this impact is “High." The time scale is assumed to be medium term (to 2030). |

## **C3.1f**

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

## **C4. Targets and performance**

## **C4.1**

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

Intensity target

## **C4.1b**

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

### **Target reference number**

Int 1

### **Year target was set**

2017

### **Target coverage**

Company-wide

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

Scope 1+2 (market-based)

### **Intensity metric**

Metric tons CO2e per unit of production

### **Base year**

2005

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

0.624

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

94

### **Target year**

2019

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

37

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

0.39312

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

-36

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

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

0.393

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

100.051975051975

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

Achieved

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

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

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

This goal focuses on CO2 emitted as a result of MMC’s automobile business activities from its production facilities.

## **C4.2**

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

No other climate-related targets

## **C4.3**

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

Yes

## **C4.3a**

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

|  |  |  |
| --- | --- | --- |
|  | **Number of initiatives** | **Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked \*)** |
| Under investigation | 0 | 0 |
| To be implemented\* | 430 | 18142 |
| Implementation commenced\* | 0 | 0 |
| Implemented\* | 565 | 25495 |
| 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 category & Initiative type**

|  |  |
| --- | --- |
| Energy efficiency in buildings | Lighting |

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

2100

### **Scope(s)**

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

86769479

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

406015000

### **Payback period**

4-10 years

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

11-15 years

### **Comment**

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

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

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

1223

### **Scope(s)**

Scope 1

### **Voluntary/Mandatory**

Voluntary

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

30324491

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

9734000

### **Payback period**

<1 year

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

6-10 years

### **Comment**

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

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

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

915

### **Scope(s)**

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

18104949

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

17573000

### **Payback period**

1-3 years

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

6-10 years

### **Comment**

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

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

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

3955

### **Scope(s)**

Scope 1

### **Voluntary/Mandatory**

Voluntary

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

115311703

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

0

### **Payback period**

No payback

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

6-10 years

### **Comment**

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

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

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

15639

### **Scope(s)**

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

365296280

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

0

### **Payback period**

No payback

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

6-10 years

### **Comment**

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

|  |  |
| --- | --- |
| Low-carbon energy consumption | Other, please specify (Biomas) |

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

1663

### **Scope(s)**

Scope 2 (market-based)

### **Voluntary/Mandatory**

Voluntary

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

0

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

27000000

### **Payback period**

No payback

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

<1 year

### **Comment**

## **C4.3c**

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

|  |  |
| --- | --- |
| **Method** | **Comment** |
| Dedicated budget for energy efficiency | The Company’s yearly business plans include budget resources for efforts to reduce CO2 emissions. |

## **C4.5**

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

Yes

## **C4.5a**

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

### **Level of aggregation**

Group of products

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

MMC produces and sells two EV i-MiEV and the plug-in hybrid Outlander PHEV.

### **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 (MMMC implements product LCA (life cycle assessment) to confirm that the CO2 emissions of its products over their whole life cycle are lower than)

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

4

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

<Not Applicable>

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

<Not Applicable>

### **Comment**

## **C5. Emissions methodology**

## **C5.1**

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

### **Scope 1**

### **Base year start**

April 1 2010

### **Base year end**

March 31 2011

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

166855

### **Comment**

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

### **Base year start**

April 1 2010

### **Base year end**

March 31 2011

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

487822

### **Comment**

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

### **Base year start**

April 1 2010

### **Base year end**

March 31 2011

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

374521

### **Comment**

## **C5.2**

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

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

## **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)**

116606

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **C6.2**

### **(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.**

### **Row 1**

### **​Scope 2, location-based​**

We are reporting a Scope 2, location-based figure

### **Scope 2, market-based**

We are reporting a Scope 2, market-based figure

### **Comment**

## **C6.3**

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

### **Reporting year**

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

386402

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

416878

### **Start date**

<Not Applicable>

### **End date**

<Not Applicable>

### **Comment**

## **C6.4**

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

Yes

## **C6.4a**

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

### **Source**

The values include figures for all consolidated subsidiaries responsible for vehicle/part production and larger consolidated sales companies, but the information does not include data for smaller consolidated subsidiaries. The totals for affiliates follow a similar pattern, as well: While the values include figures for major affiliates, there are some affiliates (Chinese engine production companies, for example) whose figures are not part of the total. We consider the infuluence is not so important.

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

Emissions are not relevant

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

Emissions are not relevant

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

Emissions are not relevant

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

In the Company’s estimation, smaller consolidated subsidiaries generate minimal emissions and thus warrant exclusion. The Company is currently expanding the scope of affiliates for inclusion in the values.

## **C6.5**

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

### **Purchased goods and services**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

6330817

### **Emissions calculation methodology**

Σ(Purchase Cost of material × Emissions factors ). Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on consolidated basis.

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

0

### **Please explain**

### **Capital goods**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

319000

### **Emissions calculation methodology**

Σ( Property Increase × Emissions factors). Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on non-consolidated basis.

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

0

### **Please explain**

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

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

49311

### **Emissions calculation methodology**

Σ(Consumption amount of fuels, electricity, steam, water × Emissions factors). Emission factors are referred from CFP (Carbon Footprint of Products) Program data base. This figure depends on consolidated basis.

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

0

### **Please explain**

### **Upstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1173571

### **Emissions calculation methodology**

We calculate CO2 emissions according to "Act on the Rational Use of Energy," based on the volume of distribution and the fuel economy. Σ(Cost of marine transport from the plant in Japan, Thailand and China × Emissions factors). Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on consolidated basis.

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

0

### **Please explain**

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

21000

### **Emissions calculation methodology**

Σ(Intermediate treatment amount by waste category × Emissions factors). Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on non-consolidated basis.

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

0

### **Please explain**

### **Business travel**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

4182

### **Emissions calculation methodology**

Number of employee × Emissions factors. Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on consolidated basis.

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

0

### **Please explain**

### **Employee commuting**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

14171

### **Emissions calculation methodology**

Σ(Number of employees by facilities or countries × Emissions factors). Emissions factors are referred from the data base published by “Ministry of Environment” and “Ministry of Economy, Trading and Industry.” This figure depends on consolidated basis.

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

0

### **Please explain**

### **Upstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

Included in scope 1 and 2 emissions.

### **Downstream transportation and distribution**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

Included in scope3 category 4 emissions.

### **Processing of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

Included in scope 1 and 2 emissions.

### **Use of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

26833360

### **Emissions calculation methodology**

Σ(Number of sold vehicle × estimated travel distance in the life of the vehicle × CO2 emissions per travel distance). This calculation covers all markets.

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

0

### **Please explain**

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

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

670649

### **Emissions calculation methodology**

Σ(Number of sold vehicle × vehicle weight × Emissions factors). This calculation covers all markets.

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

0

### **Please explain**

### **Downstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

Included in scope 1 and 2 emissions.

### **Franchises**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

13290

### **Emissions calculation methodology**

Total CO2 emissions emitted by some independent dealerships in Japan.

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

0

### **Please explain**

### **Investments**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

We have no investments to calculate for this category.

### **Other (upstream)**

### **Evaluation status**

Please select

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

### **Other (downstream)**

### **Evaluation status**

Please select

### **Metric tonnes CO2e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

### **Please explain**

## **C6.7**

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

No

## **C6.10**

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

### **Intensity figure**

0.235

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

533484

### **Metric denominator**

unit total revenue

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

2270276000000

### **Scope 2 figure used**

Market-based

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

14

### **Direction of change**

Increased

### **Reason for change**

Due to decreased production and sales, operation efficiency has become worse than previous year.

### **Intensity figure**

0.463

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

533484

### **Metric denominator**

unit of production

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

1152000

### **Scope 2 figure used**

Market-based

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

5

### **Direction of change**

Increased

### **Reason for change**

Due to decreased production and sales, operation efficiency has become worse than previous year.

## **C7. Emissions breakdowns**

## **C7.1**

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

No

## **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 | 84747 |
| Thailand | 16735 |
| Philippines | 2499 |
| United States of America | 661 |
| New Zealand | 26 |
| Australia | 687 |
| Netherlands | 329 |
| Germany | 263 |
| Indonesia | 3465 |
| China | 7194 |

## **C7.3**

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

By activity

## **C7.3c**

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

|  |  |
| --- | --- |
| **Activity** | **Scope 1 emissions (metric tons CO2e)** |
| Production | 103107 |
| Non-production | 13499 |

## **C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4**

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Gross Scope 1 emissions, metric tons CO2e** | **Net Scope 1 emissions , metric tons CO2e** | **Comment** |
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Electric utility activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (midstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 116606 | <Not Applicable> |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C7.5**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country/Region** | **Scope 2, location-based (metric tons CO2e)** | **Scope 2, market-based (metric tons CO2e)** | **Purchased and consumed electricity, heat, steam or cooling (MWh)** | **Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)** |
| Japan | 251617 | 271328 | 1393210 | 5000 |
| Thailand | 55225 | 67963 | 316536 | 0 |
| Philippines | 15782 | 15008 | 63955 | 0 |
| United States of America | 1848 | 1848 | 11897 | 0 |
| Puerto Rico | 51 | 51 | 0 | 0 |
| New Zealand | 58 | 58 | 1351 | 0 |
| Australia | 581 | 581 | 2121 | 0 |
| United Arab Emirates | 314 | 314 | 2194 | 0 |
| Netherlands | 669 | 0 | 4148 | 4148 |
| Germany | 542 | 12 | 3525 | 3446 |
| Indonesia | 32555 | 32555 | 114773 | 0 |
| China | 27160 | 27160 | 118194 | 0 |

## **C7.6**

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

By activity

## **C7.6c**

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

|  |  |  |
| --- | --- | --- |
| **Activity** | **Scope 2, location-based (metric tons CO2e)** | **Scope 2, market-based (metric tons CO2e)** |
| Production | 338476 | 368729 |
| Non-production | 47926 | 48149 |

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

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Scope 2, location-based, metric tons CO2e** | **Scope 2, market-based (if applicable), metric tons CO2e** | **Comment** |
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (midstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 386402 | 416878 |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C-TO7.8**

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

### **Activity**

Light Duty Vehicles (LDV)

### **Emissions intensity figure**

0.000159

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

26833360

### **Metric denominator**

p.km

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

169050000000

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

11

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

1127000

### **Vehicle lifetime in years**

15

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

10000

### **Load factor**

In our internal metric, neither passenger numbers nor cargo amount are not consider in calculation for the intensity of Scope 3 category 11. Therefore, load factor is considered as 1.

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

In calculating the Scope 3 Category 11 emissions, the numerator is the CO2 emissions of the product per unit of drive distance for each model, multiplied by the lifetime in years and the anticipated annual drive distance. These figures for all models are then added together. The denominator is the aggregate of the lifetimes in years multiplied by the anticipated annual drive distance for each model. (Since the number of passengers is not taken into account in the calculation, a load factor of 1 is assumed.)

## **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 | 1663 | Decreased | 0.3 | (CO2 emissions in FY2018 in facility whose comsumption of renewable energy has increased for FY2019)/(CO2 emissions in FY2018) =1663t/517,735t≒-0.3% |
| Other emissions reduction activities | 23832 | Decreased | 4.6 | Last year 23,832 tCO2 were reduced by our emissions reduction projects, and our total S1 and S2 emissions during the previous year was 517,735t tCO2e, therefore we arrived at 4.6% through (23,832/ 517,735t)\*100≒4.6% |
| Divestment | 0 | No change | 0 |  |
| Acquisitions | 0 | No change | 0 |  |
| Mergers | 0 | No change | 0 |  |
| Change in output | 11908 | Decreased | 2.3 | ((The number of vehicle produced in fiscal 2019) - (The number of vehicle produced in fiscal 2018))/ (The number of vehicle produced in fiscal 2018) = (1,152,000-1,179,075) / 1,179,075 = -2.3% . (Emissions in fiscal 2018：517,735t ) × -2.3% = -11,908 t |
| Change in methodology | 0 | No change | 0 |  |
| Change in boundary | 0 | No change | 0 |  |
| Change in physical operating conditions | 0 | No change | 0 |  |
| Unidentified | 0 | No change | 0 |  |
| Other | 53152 | Increased | 10.3 | Changes which were not included other reason are shown. This change is considered to be operational efficiency improvement. |

## **C7.9b**

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

Market-based

## **C8. Energy**

## **C8.1**

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

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

## **C8.2**

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

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

## **C8.2a**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Heating value** | **MWh from renewable sources** | **MWh from non-renewable sources** | **Total (renewable and non-renewable) MWh** |
| Consumption of fuel (excluding feedstock) | HHV (higher heating value) | 0 | 582994 | 582994 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 12595 | 2017594 | 2030189 |
| Consumption of purchased or acquired heat | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired steam | <Not Applicable> | 0 | 31294 | 31294 |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 815 | <Not Applicable> | 815 |
| Total energy consumption | <Not Applicable> | 13410 | 2631882 | 2645292 |

## **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 | No |

## **C8.2c**

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

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

Town Gas

### **Heating value**

HHV (higher heating value)

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

437963

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

0

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

437963

### **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**

<Not Applicable>

### **Emission factor**

2.24

### **Unit**

kg CO2 per m3

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Natural Gas

### **Heating value**

HHV (higher heating value)

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

44644

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

0

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

44644

### **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**

<Not Applicable>

### **Emission factor**

2.22

### **Unit**

kg CO2 per liter

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Kerosene

### **Heating value**

HHV (higher heating value)

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

4588

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

0

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

4588

### **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**

<Not Applicable>

### **Emission factor**

2.49

### **Unit**

kg CO2 per liter

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Other, please specify (Heavy oil A)

### **Heating value**

HHV (higher heating value)

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

26453

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

0

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

26453

### **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**

<Not Applicable>

### **Emission factor**

2.71

### **Unit**

kg CO2 per liter

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Liquefied Petroleum Gas (LPG)

### **Heating value**

HHV (higher heating value)

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

45451

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

0

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

45451

### **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**

<Not Applicable>

### **Emission factor**

2.99

### **Unit**

metric tons CO2 per metric ton

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Motor Gasoline

### **Heating value**

HHV (higher heating value)

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

15510

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

0

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

15510

### **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**

<Not Applicable>

### **Emission factor**

2.32

### **Unit**

kg CO2 per liter

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

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

Diesel

### **Heating value**

HHV (higher heating value)

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

8385

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

0

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

8385

### **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**

<Not Applicable>

### **Emission factor**

2.58

### **Unit**

kg CO2e per liter

### **Emissions factor source**

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

### **Comment**

## **C8.2d**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total Gross generation (MWh)** | **Generation that is consumed by the organization (MWh)** | **Gross generation from renewable sources (MWh)** | **Generation from renewable sources that is consumed by the organization (MWh)** |
| Electricity | 815 | 815 | 815 | 815 |
| Heat | 0 | 0 | 0 | 0 |
| Steam | 0 | 0 | 0 | 0 |
| Cooling | 0 | 0 | 0 | 0 |

## **C8.2e**

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

### **Sourcing method**

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

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

Hydropower

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

Europe

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

7594

### **Comment**

### **Sourcing method**

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

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

Biomass

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

Japan

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

5000

### **Comment**

## **C-TO8.5**

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

### **Activity**

Light Duty Vehicles (LDV)

### **Metric figure**

0.159

### **Metric numerator**

Other, please specify (kg-CO2)

### **Metric denominator**

Use phase: Vehicle.km

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

26833360

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

169050000000

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

11

### **Please explain**

## **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**

Plug-in hybrid vehicle (PHEV)

### **Metric figure**

4

### **Metric unit**

% of total sales

### **Explanation**

MMC positions its electric vehicle as low-carbon transport technology and monitors the percentages of Outlander PHEV sales. The percentages were approximately 4% in FY2019.

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

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

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

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

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

### **Activity**

Light Duty Vehicles (LDV)

### **Technology area**

Electrification

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

Applied research and development

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

41-60%

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

130000000000

### **Comment**

We drive to improve our combustion engine vehicles to adapt to regulations relating to fuel consumption and CO2 emissions. For our EVs, we are working on higher capacity batteries and more highly efficient motors to reduce electricity consumption. In FY2019, MMC invested approximately ¥130 billion in environmental technologies, including R&D on EVs.

## **C10. Verification**

## **C10.1**

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

|  |  |
| --- | --- |
|  | **Verification/assurance status** |
| Scope 1 | No third-party verification or assurance |
| Scope 2 (location-based or market-based) | No third-party verification or assurance |
| Scope 3 | No third-party verification or assurance |

## **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.**

Japan carbon tax

## **C11.1c**

### **(C11.1c) Complete the following table for each of the tax systems you are regulated by.**

### **Japan carbon tax**

### **Period start date**

April 1 2019

### **Period end date**

March 31 2020

### **% of total Scope 1 emissions covered by tax**

67

### **Total cost of tax paid**

102905483

### **Comment**

MMC is not directly regulated under any emissions trading scheme, but the energy it purchases from energy providers include taxes for mitigating global warming, so CO2 emission calculations take into account energy usage at all MMC premises in Japan.

## **C11.1d**

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

Carbon tax is included in energy costs, so we promote reduction of the indirect burden by carbon tax through energy saving.

## **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, but we 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**

Compliance & onboarding

### **Details of engagement**

Included climate change in supplier selection / management mechanism

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

100

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

100

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

100

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

This has been rolled out to all parts, materials, production equipment and other suppliers in Japan and Thailand.

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

In hopes of mitigating the environmental burden of GHG emissions and other byproducts of its supply chains, Mitsubishi Motors has created a “Green Procurement Guideline” that applies to companies supplying parts, raw materials, and production facilities, etc., to the Company’s own in-house plants and production sites in Thailand. The Green Procurement Guideline requires suppliers to manage their supply chains, including second-tier suppliers. One of the key requirements deals with reductions in CO2 emissions, stipulating that suppliers need to manage emissions voluntarily via environmental management systems such as ISO14001. Suppliers that have not yet obtained environmental management system certification need to provide information on the corresponding efforts at the Company’s request. The Company requires all companies supplying parts, raw materials, and production facilities, etc., to the Company’s own in-house plants and production sites in Thailand to comply with the “Green Procurement Guideline.”

### **Comment**

## **C12.1d**

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

To expand our CO2 emission reduction efforts and other environmental initiatives to the whole of our supply chain, MMC is providing education to our sales companies in Japan. In particular, we encourage them to acquire Eco-Action 21 certification, based on an environmental management system for SMEs promoted by the Ministry of the Environment. In FY 2019, 4 companies were newly certified .

## **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?**

Trade associations

## **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 CO2 emissions from the transport sector (including automobiles) account for 18.5% of Japan’s total CO2 emissions (FY2018). In light of this, the Japan Automobile Manufacturers Association (JAMA) is striving to improve the fuel efficiency of passenger vehicles and to limit CO2 emissions in product manufacturing processes. For example, for CO2 emissions from vehicles, JAMA is working to meet fuel efficiency standards and to reduce CO2 emissions, in line with the Japanese government’s 2030 GHG reduction target of 26.0% (below FY2013 level), which corresponds to a reduction of 27.6% in the transport sector.

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

The JAMA Board of Directors includes MMC executives. In addition, the JAMA’s Environment Committee is headed by MMC’s Chief Environmental Strategy Officer, who participates in discussions relating to vehicle fuel efficiency and trends in CO2 emission regulations. Since the MMC executives who are members of the JAMA Board of Directors and Environment Committee can express their opinions as representatives of the company, we are able to influence the positions and decision-making of the JAMA in relation to climate change issues.

## **C12.3f**

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

The relevant MMC executives and division managers who participate in the JAMA as MMC representatives can share information relating to COP, the Paris Agreement, and other long-term environmental trends with the representatives of other companies. In accordance with such trends, MMC deliberates on the company’s medium-term plan on climate change action and environmental issues in the CSR Management Committee, after which matters are put for decision to the Executive Committee. The MMC executives who attend JAMA meetings are all internal board members as well as executive officers or managers in relevant areas, so all of them are responsible for external PR activities. This ensures consistency between the company’s climate change policies and the external PR activities of the MMC’s various divisions. MMC’s environmental management units receive reports from the MMC executives who participate in the JAMA regarding climate change-related relations and liaisons with relevant government agencies and industry bodies, to ensure that MMC’s policies are consistent company-wide with those of government and industry. Furthermore, MMC also uses its Intranet and online learning applications to keep all of its employees up to date regarding the company’s policies and medium-term action plans.

## **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**

[yuka20200702e.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/6jFPv5jY2U6Mshfx8Er2rQ/yuka20200702e.pdf)

### **Page/Section reference**

The physical risks arising from natural disasters and transition risks due to stricter laws and regulations are described P16 [ (14) Influence of climate change ] of the Annual Securities Report.

### **Content elements**

Governance

Strategy

Risks & opportunities

### **Comment**

### **Publication**

In voluntary sustainability report

### **Status**

Underway – previous year attached

### **Attach the document**

[Sustainability Report2019\_e.pdf](https://www.cdp.net/en/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/QmI7XeWUpEiEv9Q97f0kow/SustainabilityReport2019e.pdf)

### **Page/Section reference**

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

### **Comment**

## **C15. Signoff**

## **C-FI**

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

## **C15.1**

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

|  |  |  |
| --- | --- | --- |
|  | **Job title** | **Corresponding job category** |
| Row 1 | Corporate Officer ( General Administration, Communication, Sustainability) | Chief Sustainability Officer (CSO) |