7 Environment

Material Issues

- Responding to climate change and energy issues
- Ensuring clean air
- Advancing powertrain electrification
- Utilizing resources efficiently
- Conserving water resources
- Preserving biodiversity
- Managing chemical substances and preventing pollution

Basic Approach

Honda Environmental and Safety Vision/ Honda's Environment Statement

Ever since the 1960s, Honda has actively endeavored to solve environmental issues. In the 1970s, Honda developed the low-pollution CVCC* engine that successfully reduced carbon monoxide, hydrocarbon and nitrogen oxide (NOx) emissions, making Honda the world's first automaker to comply with the U.S. Clean Air Act – a regulation thought at the time to be the most stringent in the world.

In 1992, Honda's Environment Statement was released to serve as the Company's guideline for all environmental initiatives. The statement articulates the basic stance developed until then to reduce environmental impact at every stage in the life cycle of its products, from product procurement to design, development, production, transportation, sale, use and disposal stages.

In addition, for Honda to further promote the above-mentioned environmental initiatives and continue to be a company that society wants to exist, the Honda Environmental and Safety Vision was established in 2011. Aimed at the realization of the joy and freedom of mobility and a sustainable society where people can enjoy life, as is declared in this vision, each of Honda's global business sites is engaging in the reduction of an array of environmental impacts from the aspects of both production-based and corporate activities. Such environmental impacts include Greenhouse Gas (GHG) emissions, which are considered to be a cause of climate change; use of resources, including water and minerals; and suitable processing and reduction of waste.

Honda will conduct these activities while sharing Honda's Environment Statement with everyone associated with Honda—including suppliers and distributors in addition to Honda Group companies—in order to realize this vision.

Honda Environmental and Safety Vision

Realizing the joy and freedom of mobility and a sustainable society where people can enjoy life

Honda's Environment Statement

As a responsible member of society whose task lies in the preservation of the global environment, the Company will make every effort to contribute to human health and the preservation of the global environment in each phase of its corporate activities. Only in this way will we be able to count on a successful future not only for our company, but for the world.

We should pursue our daily business under the following principles:

1. We will make efforts to recycle materials and conserve resources and energy at every stage of our products' life cycle—from research, design, production and sales, to services and disposal.
2. We will make every effort to minimize and find appropriate methods to dispose of waste and contaminants that are produced through the use of our products, and in every stage of the life cycle of these products.
3. As both a member of the company and of society, each associate will focus on the importance of making efforts to preserve human health and the global environment, and will do his or her part to ensure that the company as a whole acts responsibly.
4. We will consider the influence that our corporate activities have on the regional environment and society, and endeavor to improve the social standing of the company.

Established and announced in June 1992 Honda's Environment Statement

* CVCC: Compound Vortex Controlled Combustion

environment

Global Management

Environmental Management Promotion Structure and Management Cycle

Honda recognizes that environmental issues such as climate change and energy/resource issues, which require global responses, are material issues that impact Honda's business operations. Based on this recognition, the Environmental Committee was established in 1991, chaired by the President and CEO and comprised of members of company management. In 1995, the Committee became the World Environmental Committee and assumed responsibility for discussing and formulating plans for environmental protection activities worldwide. Since then, it had continued to meet every year as the World Environment and Safety Strategy Committee. From FY2018, environmental issues have been incorporated as items to be considered at the Sustainability Strategy Committee (⇒ p. 18). for integrated discussions under a single committee.

Medium- and long-term environmental policies and plans at the global level are formulated at the Meeting of the World Environment and Safety Strategy Committee on the basis of company-wide direction and medium- and long-term business plans. All committee members are involved in the meeting's decision-making.

Following the decisions made at the above meeting, the World's Six Region Environmental Committee, made up of the environmental divisions of each regional headquarters, also meets every year. Once the information sharing process at these meetings concludes, these divisions formulate concrete action plans and then implement policy.

In terms of the progress of Honda's environmental initiatives and the themes applicable worldwide, the Corporate Planning Supervisory Unit collects information from Regional Operations and reports it at the Meeting of the Sustainability Strategy Committee. The Company is striving to continuously enhance environmental management through the reflection of the above information in the medium-term business plan and policy for the following term and the implementation of the plan-do-check-act (PDCA) cycle by each Regional Operation and environmental division.

Environmental Management System

Honda's existing global vehicle assembly and product assembly plants have acquired ISO14001, an international certification for environmental management systems (as of March 2019). Honda is in the process of obtaining certification for newly built plants. Therefore, coverage of environmental management systems is virtually 100%.

Current Status of Compliance with Environmental Regulations

In accordance with Honda's Environment Statement, the Company has introduced environmental management systems at all business sites and in each division. Along with promoting continuous efforts to improve environmental performance, it strives to comply with its own voluntary environmental standards, which are more stringent from an environmental perspective than any national or local regulations.

In the last five years, Honda has not committed any serious noncompliance with environmental laws and regulations, paid substantial fines/sanctions in breach thereof, or recorded any major chemical releases.

In addition, no environment-related complaints were received through the official complaint resolution program.

Environmental Accounting

Environmental Accounting in Japan

To facilitate efficient environmental management, Honda tabulates the cost reduction and profit attributable to its environmental protection activities, thus working to keep abreast of their economic impact.

Going forward, Honda is committed to continuing improvement of the accuracy of this data, which it sees as an indicator of corporate value, and as a tool for making environment-related management decisions.

DATA

Cost of environmental conservation activities and investments

> p.65

DATA

Economic benefits (Effect on revenue and expenses)

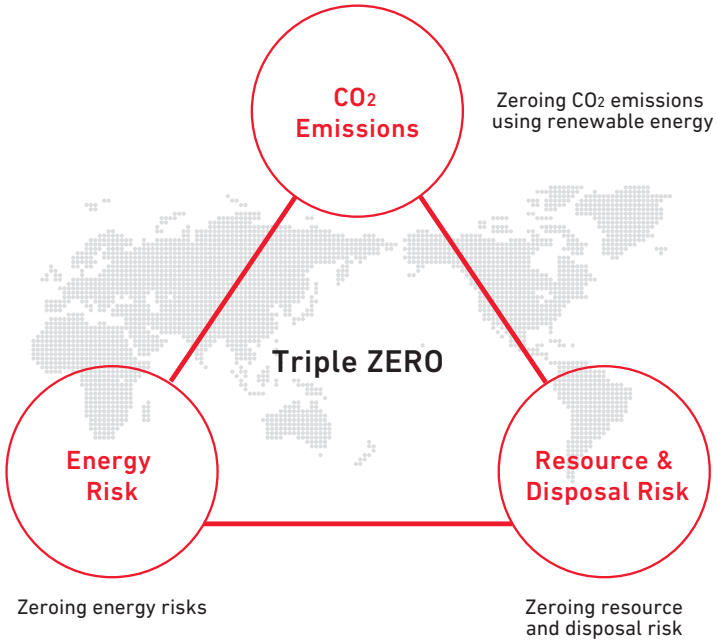
> p.65

Material Issues in the Environmental Dimension

Honda's Material Issues

Through Honda's proprietary technologies and business activities, the Company will work to deal with climate change issues, energy issues, effective utilization of resources and preservation of clean air, which are outlined as challenges in the materiality matrix, with an aim to realize a zero-environmental impact society in the future. In particular, Honda believes that dealing with climate change and energy issues and the effective utilization of resources are priority challenges in the environmental field.

Triple ZERO approach



Triple ZERO

Honda has introduced the Triple ZERO concept to unify its three "zeroing" efforts addressing "climate change issues," "energy issues" and "efficient utilization of resources," our most important challenges. The Company is striving to realize a society with an environmental impact of zero by engaging in its business activities based on this approach.

Zeroing CO_2 emissions using renewable energy

To address "climate change issues," Honda is striving to eliminate CO_2 emissions in products and business activities in the future by utilizing renewable energy.

Zeroing energy risks

To address "energy issues," Honda is striving to eliminate energy risks in the future, such as those caused by a dependence on fossil fuels.

Zeroing resource and disposal risk

To address the need for "efficient utilization of resources," Honda is striving to eliminate risks across the entire product life cycle, from the resource procurement stage to the used product recovery and disposal stages.

Material Issues in the Environmental Dimension

Dealing with Climate Change and Energy Issues

Mitigating Climate Change and Energy Risk

Honda is moving forward with its response to climate change through initiatives that link Honda's business strategy with its environmental strategy. With the vision of a zero impact society, in 2014 the Company announced its aim to cut total corporate CO_2 emissions in half by 2050 (compared with 2000 levels). Going forward, Honda will continue with activities to reduce CO_2 using science-based target setting using the latest information. As an interim objective, Honda is currently working to achieve its 2020 Product CO_2 Emissions Reduction Targets to lower CO_2 emissions intensity from the use of motorcycles, automobiles and power products worldwide by 30% from the 2000 base year level.

In North America, Honda conducts credit trading with the portion exceeding the amount set forth in GHG and Corporate Average Fuel Economy (CAFE) laws and regulations and is working efficiently to reduce GHG while keeping an eye on the impact of this on business. The Company believes this is also connected to risk management in terms of rising fuel prices due to carbon pricing expected to come in effect in the future.

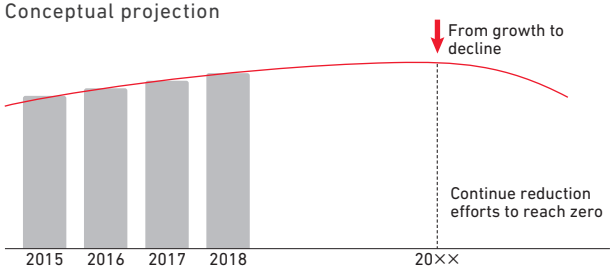
As automobiles account for approximately three quarters of Honda's sales revenue, in pursuing the reduction of CO_2 emitted from its products, Honda considers that reputational risk and potential penalties arising from failure to comply with fuel economy regulations can have a significant impact on its business. Accordingly, Honda has taken efforts to mitigate risks by applying a system called "SED" in which products are developed jointly by the Sales (S), Engineering (E) and Development (D) functions. In addition, operations such as Honda R&D Co., Ltd., Automobile Operations and the Certification & Regulation Compliance Division coordinate research on trends in fuel economy regulations around the world, while the Certification & Regulation Compliance Division publishes the results as regulatory information. Regular meetings are held to provide a forum for sharing the contents and interpretation of new regulations, as well as for discussing the responses to them. Also, Honda has built an organizational structure for developing technologies that always anticipate future fuel economy regulations through engagement with policy makers.

In recent years, stakeholders have become increasingly conscious of fuel efficiency, CO_2 emissions and other environmental performance indices when choosing mobility products. Honda recognizes these changes in consumer values and market demands as critical matters to focus on, and it is actively expanding the lineup of products that it offers powered by Earth Dreams Technology*. Through these initiatives, Honda is meeting customers' needs and generating additional profit.

The Company believes that climate change, resource depletion and other issues are compelling society, which is heavily dependent on fossil fuels, to face up to energy risks. Energy issues have a very significant business impact on the mobility business sector. As such, Honda's concern is that unless it proceeds with energy diversification, for example, through the utilization of renewable energy, it will become difficult to sustain the Company's business.

Honda is addressing energy issues by diversifying the energy sources used in its products and business activities, with the aim of completely eliminating energy risk from heavy dependence on fossil fuels, etc. The Company has set an interim target for 2020 and aims to establish technologies that diversify home energy sources and reduce CO_2 emissions from personal mobility and home living to zero. Honda is developing the Honda Smart Home System (HSHS) to help it realize this goal. In addition, in the fields of its business activities Honda plans to introduce solar power generation of 11.4 MW in FY2020 for the use of renewable energy. As mentioned above, Honda is promoting energy diversification by actively introducing large-scale solar and wind power generation at Honda's facilities.

Honda's total GHG emissions:
Conceptual projection



* A collective term to refer to a group of innovative technologies that greatly enhances both driving performance and fuel economy, building on advancements in environmental performance to pursue a joy of driving unique to Honda

environment

Material Issues in the Environmental Dimension

Advancing Powertrain Electrification

Honda views transition risk induced by energy diversification as key challenges and actively promotes electrified products. Honda has set a target to electrify two-thirds of its global automobile sales by 2030. To achieve this goal, the Company is seizing all new business opportunities by pushing forward with the development of plug-in hybrid electric vehicles (PHEV), electric vehicles (EV) and fuel cell vehicles (FCV), while entering into partnerships with other companies for the preparation of a hydrogen infrastructure involving the likes of hydrogen stations. To give an example of the Company's efforts to develop such products and the infrastructure supporting their proliferation, American Honda Motor Co., Inc. installed 60 new EV charging stations on its Torrance, California campus, while the Honda Clarity series was launched in the United States, in which FCV, EV and PHEV powertrains are built on the same platform. Honda is also working to promote electrification company-wide including the delegation of its Yorii assembly plant in Japan as its flagship production site for electrified vehicles as well as establishing a development and production structure that meets market needs worldwide.

As for motorcycles, Honda is selling and conducting demonstration experiments for the PCX Electric/Hybrid. Regarding power products, the Company has expanded product selection in line with customer needs by accelerating product electrification. This includes the LiB-AID E500, a handy storage battery that can be used as a portable power source, and the Miimo HRM520 robotic lawn mower.

Material Issues in the Environmental Dimension

Efficient Utilization of Resources

The difficulty or depletion of obtaining rare earth metals and other resources used in the Company's products poses a significant risk to our business continuity in terms of the procurement of components and raw materials necessary for manufacturing.

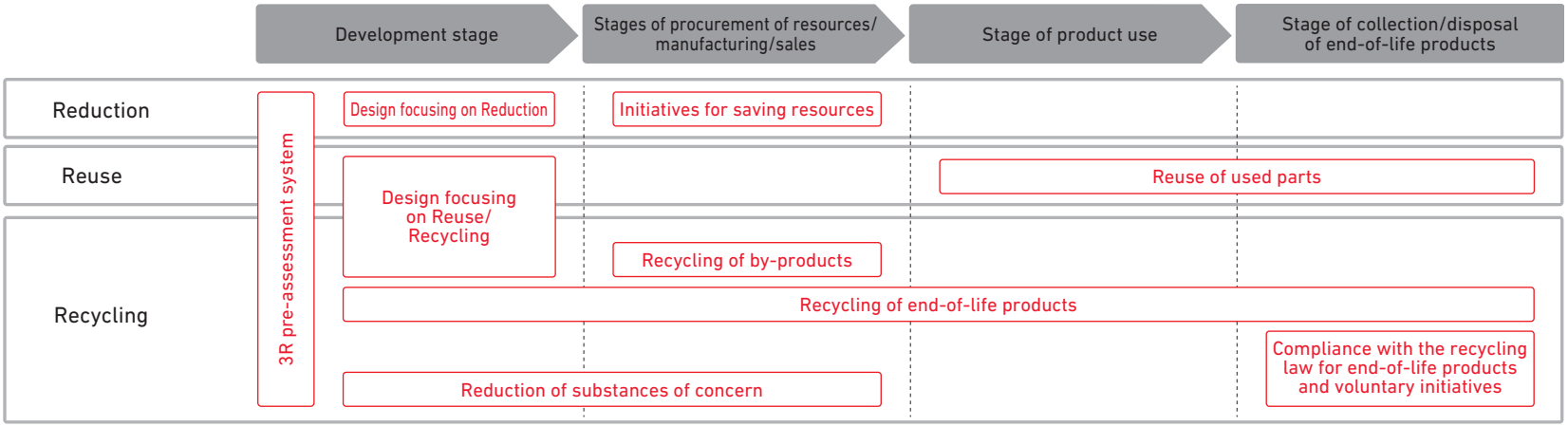
Therefore, Honda considers the efficient utilization of resources one of the material issues and is actively promoting 3R (Reduction/Reuse/Recycling) activities as well as ensuring proper processing when disposing of end-of-life products.

First of all, Honda is focusing on corporate activities. The Company is engaging in waste reduction initiatives with the goal of keeping cost-incurring waste generated from corporate activities under 240,000 tons (FY2020).

As for water resources, Honda is giving consideration to water supply risks. Accordingly, Honda is making an effort to reduce water intake with an aim of keeping water intake in corporate activities under 29 million m^3 (FY2020).

Aiming at the elimination of risks related to resources and disposal that occur in various stages ranging from resource procurement to disposal, Honda is tackling this issue through cooperation/partnership with internal/external stakeholders.

Initiative for the elimination of risks related to resources and disposal



environment

Material Issues in the Environmental Dimension

Preservation of Clean Air

Honda recognizes that air pollution has been a critical issue since the 1960s and believes that worsening air pollution in cities has a negative effect on people's health. The Company, therefore, has sought to resolve this issue through the development of technologies that clean the gas emitted from its products.

This began with the announcement in 1972 of the CVCC engine, which cleared exhaust gas regulations under the U.S. Clean Air Act of 1970, sometimes called the "Muskie Act" that was deemed to be the toughest in the world at the time. Since then, Honda has announced a series of developments that include high-efficiency combustion technology and exhaust emissions purification technology using a catalyst. This has resulted in a reduction in the level of exhaust emissions from automobiles to one-thousandth of that registered prior to the enactment of the Muskie Act over the 40-year period.

Honda has also enhanced the combustion efficiency of engines and cleaned exhaust emissions by promoting conversion from two-stroke to four-stroke engines in motorcycles and power products as well as shifting from a carburetor to the Honda Programmed Fuel Injection (PGM-FI) system.

Through advanced development of exhaust emission cleaning technologies such as these, Honda avoids risks associated with business continuation caused by increasing costs to deal with tighter environmental regulations.

In addition, this enables products with exceptional environmental performance to be supplied at a reasonable price, and as a result, Honda leads the industry in cleaning exhaust emissions and addressing air pollution issues, which also leads to major business opportunities.

Material Issues in the Environmental Dimension

TOPICS

Research on Algal Biomass*1 System in the United States

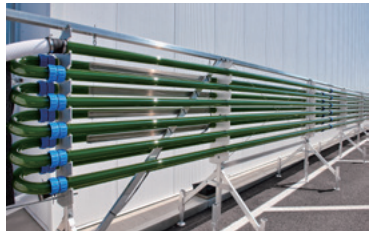
Honda R&D Americas, Inc. (HRA) is undertaking research on an algal biomass system. This research involves exhaust emitted from dynamometers ("dynos") used for vehicle testing. The CO_2 is first affixed*2 through the photosynthesis of Ohio-native algae. The by-product, or biomass, can then be converted into liquid fuel, soil conditioners, fertilizers and animal feed. The generator used for generating electric power to capture and compress the CO_2 utilizes waste vegetable oil from HRA's cafeteria. The same generator also charges the Honda Fit EV, which supplies power to run the algal biomass system.

HRA is also collaborating with Ohio University, renowned for algal research. The project involves converting wastewater, which would normally be a pollutant, into a fertilizer for algal farming. This research has received a US$200,000 grant from the Ohio Water Development Authority.

Research on the algal biomass system started out as a New Honda (NH) Circle activity*3 with the aim of reducing CO_2 emitted during business activities. This mechanism not only reduces CO_2 but also reduces environmental loads such as waste oil and wastewater. It also enables the creation of new energy sources. In other words, this truly represents Honda's "Triple Zero" initiative (⇒p. 44) .

HRA set up an algal farm in May 2018. Since the farm is still in a pilot phase, the annual amount of captured CO_2 is 1t so far. Going forward, HRA will promote research to utilize other HRA waste streams with the goal of improving the overall cost efficiency of the algal farm, with a view toward its potential.

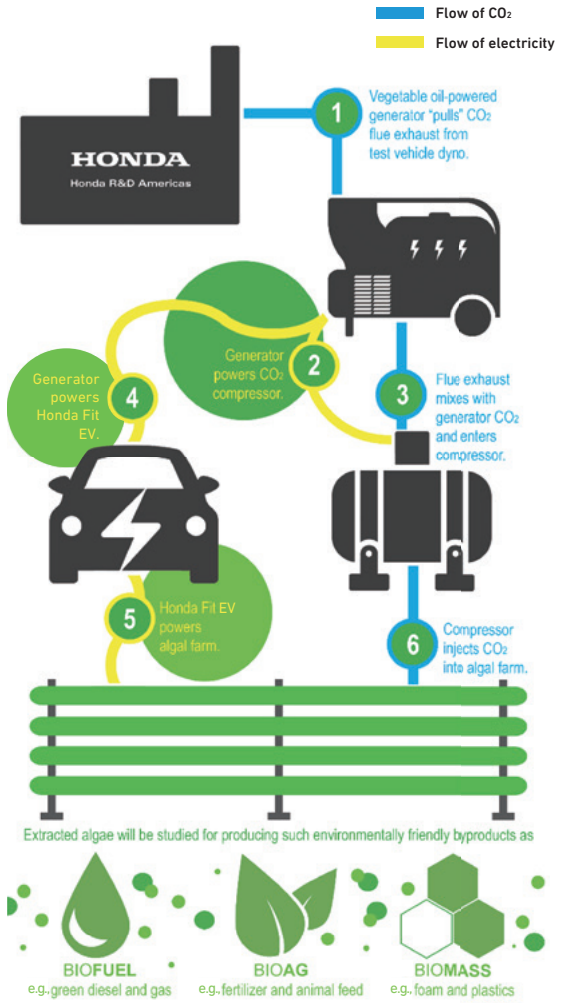
HRA's algal farm in its entirety, outside a dynamometer for product testing



A close-up view of the algal farm, which collects CO_2 from a test dynamometer at HRA

From left, project leaders Joel Agner, Dan Sellars, and Dan Wells by their "cargo container" laboratory

Algal System Flow



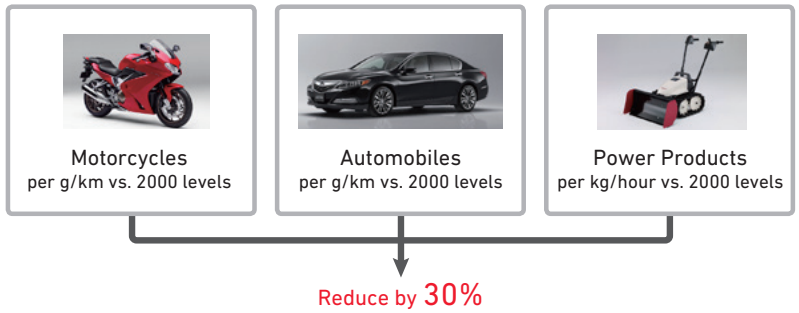
*1 Biomass: Renewable biologically derived organic resources

*2 CO_2 fixation: Plants and algae absorb CO_2 in the atmosphere, convert it into organic matter and then store it internally.

*3 NH Circle activity: An original Honda small team activity in which associates voluntarily work together to achieve continuous improvement

Responses to Climate Change and Energy Issues

Goal to Reduce CO_2 Emissions Intensity in Products by 2020



・Global average CO_2 emissions from Honda products

Honda believes in the necessity of reducing CO_2 emitted from products in response to climate change and energy issues, which it views as key environmental challenges.

Therefore, to ultimately realize zero CO_2 emissions in product usage, Honda has formulated and is promoting initiatives under a goal to reduce CO_2 emissions intensity of motorcycles, automobiles and power products by 30% from 2000 levels by 2020.

The scope of the above compilation includes Japan, North America, South America, Europe, Asia & Oceania and China, and it covers approximately 90% of units sold by Honda worldwide for each of motorcycles, automobiles and power products.

DATA

Current status of achievement vs. 2020 product CO_2 emissions intensity reduction targets

> p.65

Responses to Climate Change and Energy Issues

TOPICS

Honda Begins Lease Sales of Electric Scooter PCX ELECTRIC

Honda commenced lease sales of the electric motorized scooter "PCX ELECTRIC" in November 2018 in response to climate change and energy diversification.

The PCX ELECTRIC, based on the PCX, is powered by a newly developed compact electric power unit. Two removable "Honda Mobile Power Pack" units enable the PCX ELECTRIC to travel up to 41 km*1 on a single charge. For convenience, the mobile power packs can be charged while connected to the PCX ELECTRIC by using the supplied connector*2, or by an optional external charger.

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

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

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

PCX ELECTRIC

Honda Mobile Power Pack

*1 60 km/h steady state test
*2 Compatible with 100 V/AC plug

Responses to Climate Change and Energy Issues

Three Initiatives to Achieve Environmental Performance Targets

Emissions from "use of products" account for approximately 80% of CO_2 emissions from Honda's entire product life cycle. In light of this, Honda works to reduce CO_2 emissions during usage in all of its products, and manufactures and sells items that can be supplied with confidence as environmentally friendly products.

In addition, Honda is pushing ahead with the following three initiatives to realize its 2020 Product CO_2 Emissions Reduction Targets with a view to halving total CO_2 emissions by 2050 compared with 2000 levels while expanding production and sales globally.

① Reducing CO_2 emissions through efficiency improvements of internal combustion engines
② Reducing CO_2 emissions by introducing environmentally innovative technologies and diversifying energy sources
③ Eliminating CO_2 emissions through the use of renewable energy and total energy management

By implementing these in phases, Honda is steadily reducing CO_2 emissions with the aim of ultimately eliminating them.

By setting unique product guidelines at an advanced level for these three initiatives and making Honda products compliant with them, Honda is aiming to achieve this goal. The guidelines are articulated in the Honda Environmental Performance Standard (HEPS) formulated in 2011.

As a result of certification of products that were launched in FY2019, 27 motorcycle models, 1 automobile models and 2 power product models — a total of 30 models — were HEPS-certified. Cumulatively, this brings the number of HEPS-compliant products to 188 motorcycle models, 93 automobile models and 49 power product models, or 330 models in total.

In addition, there were no violations in product and service information or labeling in general.

DATA

Global number of HEPS-compliant models

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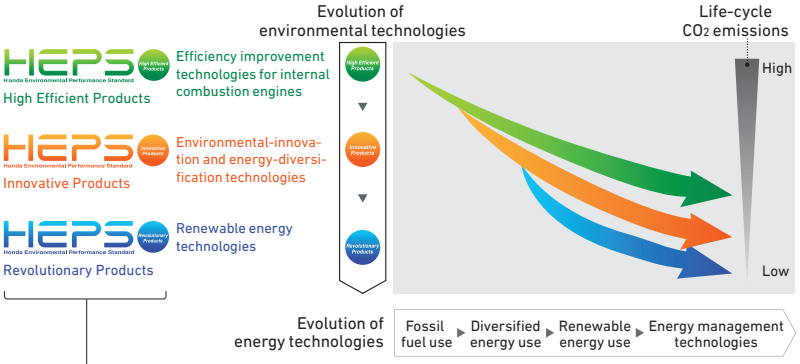
DATA

Number of HEPS-compliant models by region

> p.66



●High Efficient Products

Products that emit less CO_2 emissions because of improved internal combustion engine efficiency. This category includes products that incorporate technologies for improving fuel combustion and transmission efficiency and reducing friction between engine parts. Compliance is determined based on how well a product reduces or helps reduce CO_2 emissions during use compared with preceding models.

●Innovative Products

Products that emit less CO_2 because they use an environmentally innovative technology or an alternative energy source. This category includes motorcycles that incorporate Honda's patented Idling Stop System, automobiles that incorporate hybrid technologies or direct injection engine technologies, and power products with electronic fuel injection (FI). Alternative energy technologies include motorcycles and automobiles that can run on ethanol and power products that can run on gaseous fuels. Compliance is determined based on how well a product reduces or helps reduce CO_2 emissions during use compared with preceding models.

●Revolutionary Products

Products that reduce or eliminate CO_2 emissions by harnessing renewable energies or facilitating total energy management. This category includes products that incorporate electromotive technologies or technologies for using renewable energy.

Responses to Climate Change and Energy Issues

Corporate Activities Initiatives

With the aim of ultimately achieving zero CO_2 emissions and zero energy risk, Honda is focusing on the reduction of energy consumption and CO_2 emissions while expanding production/sales globally. In the future, Honda will aim at sustaining reduction until the rate of reduction of energy consumption exceeds the rate of increase of energy use for the manufacturing of products.

Toward the realization of the above-mentioned target, when building or renovating its plants Honda aggressively introduces the latest energy-saving technologies and know-how at plants, including the Saitama Factory's Yorii assembly plant that achieved a 30% reduction in per unit energy use compared with other Honda plants*. To support the energy-saving initiatives of various business sites operating around the world, the Company has built a mechanism for promoting information sharing among business sites and regions, and at the same time, it is enhancing technical support from Japan.

In addition, Honda is actively introducing renewable energy around the world. In FY2019, Honda utilized a total of 300 GWh of electricity generated through renewable energy such as solar and wind power.

Going forward, Honda will continue to use renewable energy befitting local conditions.

Although indirect energy consumption increased in fiscal 2018 due to increased production, the Company was able to reduce indirect GHG emissions through the utilization of renewable energy. (⇒ p. 62)

TOPICS

Sundiro Honda Completed New Plant in Taicang, Jiangsu Province

Sundiro Honda Motorcycle Co., Ltd., Honda's motorcycle production and sales joint venture in China, completed a new plant in Taicang, Jiangsu Province, China and operations commenced in August 2018.

Sundiro Honda has been working on a plan to relocate its plant from Shanghai to Taicang to enhance environmental friendliness, improve production efficiency and strengthen development functions. The Taicang plant implements the latest in production technology, such as pursuing the automation of various processes, and also includes development functions and a test course. In addition, it has enhanced initiatives for environmental friendliness by incorporating Honda's Green Factory concept. This includes not just zero emissions of water used at the plant through the recycling and evaporation system of wastewater. It also encompasses the adoption of LED lights as standard lighting and the installation of solar panels jointly with Taicang City. Together with this development, the Shanghai plant ceased production at the end of June 2018.

Forecasted to be approximately seven million units in 2018, China's motorcycle market is one of the largest markets in the world. The Taicang plant has the same level of production capacity as that of the Shanghai plant (approximately 500,000 units per year). It will be one of the most important production bases for global exports, supplying motorcycles and parts to not only the local market but also more than 50 countries and regions around the world.

Taicang plant completed in 2018

* Comparison with Saitama Factory's Sayama assembly plant

Efficient Utilization of Resources

Initiatives in the Development Stage

3R Pre-Assessment System

Honda introduced the 3R pre-assessment system, which assesses the 3R elements of each model to be newly developed in the stage of product development, for motorcycles in 1992 and for automobiles in 2001. The Company is striving to improve the level of 3R elements.

Design Focusing on Reduction

Honda is making efforts in downsizing and weight reduction by considering alternative structures and materials for all components in each product, such as the body framework, engine and bolts. For example, the Company used thinner structural bumpers in the N-WGN as part of a reduction-oriented design geared toward creating a lighter product. The availability of materials with higher rigidity and fluidity along with advances in manufacturing technologies allowed Honda to reduce the weight of the previous design by approximately 20%, which had an average thickness of 3.0 mm, by using less resin in bumper production.

In Japan, Honda is progressively expanding the use of these enhanced structural bumpers in new models launched after the N-WGN. Overseas, it has begun rolling it out globally with the 2016YM Civic. The Company expects to further reduce material use by applying the new design worldwide.

Design Focusing on Reuse/Recycling

Honda is engaging in structural design that takes into account easier recycling and maintenance, use of easily recyclable materials and recycled resins, and display of contents of materials for resin/rubber components, etc. For automobiles, the Company uses easily recyclable materials for a wide array of exterior/interior components, such as inner weather-stripping and the outer surface of instrument panels, and at the same time has enabled the use of recycled materials for air conditioner ducts. In addition, we label resin and rubber parts with their constituent materials wherever possible to facilitate recycling.

As a result of the activities mentioned above, with regard to the recyclable rate*1 for all new and redesigned vehicles sold in FY2019, Honda is maintaining more than 90% for automobiles and more than 95% for motorcycles, as well as a recoverability rate of more than 95% for components/materials*2 used in power products.

Initiatives at the Product Use Stage

Recycling of End-of-Life Components

Honda collects and recycles end-of-life components generated from repair, replacement, etc., from dealers nationwide. In FY2019, the Company collected and recycled approximately 160,000 end-of-life bumpers. Collected bumpers are recycled and used for splash guards and other components of the Freed model.

Honda will continue the recycling of end-of-life components, including the collection/recycling of end-of-life hybrid vehicle drive batteries.

*1 Index based on "Definition of Recyclable Rate for New Vehicles and Guidelines on Calculation Method" issued by Japan Automobile Manufacturers Association, Inc. (JAMA)
*2 Recyclable rate that includes the thermal energy recovered; in accordance with calculation methods of recyclable rate for cars in ISO22628, etc.

Efficient Utilization of Resources

Initiatives in the Disposal Stage

Initiative for Automobiles

The Act on Recycling, etc., of End-of-Life Vehicles (automobile recycling law) requires automakers to collect and properly treat three items: fluorocarbons, airbags and shredder dust (Automobile Shredder Residue (ASR)).

In FY2019, the number of Honda automobiles collected was approximately 480,000 for fluorocarbons (-2% from the previous fiscal year), approximately 470,000 for airbags (+2%) and approximately 520,000 for ASR (±0%). Recycling rates for gas generators and ASR were 94.2% and 97.3%, respectively, which satisfy the recycling rates specified by ordinance of the relevant ministry (at least 85% for gas generators and at least 70% for ASR).

Initiative for Motorcycles

Honda joined hands with other motorcycle manufacturers in Japan and participating motorcycle importers and started to implement the voluntary recycling of motorcycles in October 2004. With the cooperation of related dealers, various companies in the motorcycle industry started this scheme for providing a safety net for the treatment of end-of-life motorcycles, the world's first of its kind. End-of-life motorcycles are collected at the dealers and the designated points of collection free of charge and are properly recycled at recycling facilities.

Regarding end-of-life motorcycles collected at designated points of collection, there were 1,368 Honda products in FY2019, which accounted for 65.0% of all units collected. The recycling rate of Honda products came to 97.4% on a weight basis, enabling us to achieve the target recycling rate of 95% since FY2014.

Corporate Activities Initiatives

Honda is making efforts to reduce the volume of waste generated through business activities.

The Company is stepping up 3R efforts that include resource reduction initiatives, such as the reduction of by-products through an increase in throughput yields. Honda does not import or export waste deemed hazardous under the terms of Annexes I, II, III, or VII of the Basel Convention. In addition, the Company is striving to eliminate all use of ozone-depleting substances (ODS) at business sites in accordance with the Montreal Protocol and local laws and regulations in the countries in which it operates, and there are no major emissions from any of its operations.

Preservation of Clean Air

With the aim of preserving clean air, Honda is working to eliminate harmful substances in exhaust emissions from the tailpipe in the usage phase.

The engines of all commercial motorcycles have been switched to four stroke, with fuel injection (PGM-FI) being applied to at least 80% of models sold worldwide.

With regard to automobiles, Honda has gradually expanded models that are LEV*1 3- SULEV*2 30 emissions compliant, beginning with the Accord Hybrid released in 2013, thus meeting the California exhaust emissions standard, deemed to be the toughest in the world. The Accord Plug-in Hybrid was the first in the world to achieve SULEV20 status. Amid application and strengthening of exhaust emissions regulations in emerging countries, Honda is promoting response early on in various countries in Asia and the Middle East.

As for power products, Honda has cleared compliance of United States Environmental Protection Agency Phase 3 regulations, the most stringent in the world, through engine enhancement technology.

In addition, Honda is pushing ahead with initiatives in production, the process with the largest impact on the air, in an effort to preserve clean air.

In the production of automobiles, solvents found in paint and thinner used mainly in paint processes can generate Volatile Organic Compounds (VOC), the cause of photochemical oxidants. Honda's production activities in the past have sought to reduce VOC emissions such as through the introduction of a highly efficient paint process using robots; overhaul and increased recovery rate of thinners used for cleaning; and installation of equipment to incinerate and purify VOC. In addition to these initiatives, the Company introduced Honda Smart Ecological Paint that eliminates a middle coating process from a commonly used 4-coat/3-bake auto body painting process to realize a 3-coat/2-bake water-based painting process, thus reducing the generation of VOC. The technology was rolled out at the Yorii assembly plant, which sets the benchmark for environmental initiatives. Honda is working to bring in the state-of-the-art technology to all automobile plants worldwide.

In Japan, Honda set FY2011 VOC emissions intensity as the control value pursuant to the goal established by the Japan Automobile Manufacturers Association and introduced voluntary efforts aimed at reduction from there. The Company has cleared this value every year since 2010. Honda will continue withy these voluntary efforts going forward.

*1 Low Emission Vehicle
*2 Super Ultra Low Emission Vehicle

environment

Other Important Issues

Conserving Water Resources

Cognizant of the potential for business activities to impact upstream and downstream water resources, Honda is also focusing on the conservation of water resources.

Since Honda seeks out communities where harmonious coexistence with nearby water sources is viable as potential plant locations, and builds plants in compliance with host countries' environmental assessment laws and regulations, no water sources are significantly impacted by the Company's water use. In addition, no water sources are affected by wastewater from Honda facilities since it treats wastewater and discharges treated water in accordance with applicable laws and regulations. Under these circumstances, Honda appropriately manages the amount of water used and works to manage and provide information on wastewater, which includes thorough quality control and disclosure of water quality test findings.

In addition, to minimize water use, various business sites are implementing initiatives based on regional circumstances, such as the utilization of recycled water and water conservation. The Company is also working to recycle and reuse water in manufacturing processes, which utilize about 4.8 million cubic meters of water each year, or about 20% of all water use by Honda. This ongoing effort includes consideration of installing full recycling systems that allow reuse of almost 100% of all water at Honda Engineering Co., Ltd. (Japan), the No.2 Plant at Honda Automobile (Thailand) Co., Ltd. (Thailand) and the No.2 Plant at Guangqi Honda Automobile Co., Ltd. (China).

Honda strives to reduce environmental impact during product usage. The Company's lineup of engines for outboard motors consists solely of 4-stroke engines with the aim of reducing water contamination in the outboard motors being used around the world.

Besides promoting the conservation of water resources on its own accord, Honda manages a water conservation fund in North America under the Honda Marine Science Foundation, which supports the improvement and preservation of coastal areas for future generations through initiatives for marine ecosystem restoration and promoting resilience to climate change. Around US$200,000 is provided as support every year, which contributes to the preservation of the local environment. (Please refer to the link below.)

Honda has undertaken conservation activities for forest watersheds continuously since 1999 as part of its social contribution program. Production sites protect and manage the forest watersheds that they benefit from and strive to keep them optimized for each region. Aware of the fact that water is an indispensable resource supporting its business, Honda will continue implementing this activity. (Please refer to the link below.)

WEB

"Honda Marine Science Foundation"

> https://www.honda.com/environment/marine-science-foundation

WEB

"Forest watersheds" (Japanese only)

> https://www.honda.co.jp/philanthropy/forest/about/

Other Important Issues

Biodiversity Conservation

Recognizing that its business activities can have an impact on biodiversity, Honda has long been putting a great deal of effort into activities that have led to the conservation of biodiversity. The Company carried out tree-planting and water-recycling initiatives at its plants in the 1960s and launched the Community Forest program in 1976.

In 2011, the Company established the Honda Biodiversity Guidelines. As the basic statement, it stipulates as follows: "We recognize, under Honda's Environment Statement, that biodiversity conservation initiatives are an essential part of our commitment to the preservation of the global environment. We will continue to work toward harmony between this commitment and our activities."

Honda believes that minimizing the environmental impact resulting from its products and business activities represents the greatest contribution the Company can make to biodiversity conservation. The guidelines specify the priorities, including the development of environmental technology, initiatives based on corporate activities and initiatives for living in harmony with local communities, and Honda is actively promoting them.

Honda recognizes the emissions of GHGs and various other pollutants as two of the greatest impacts of business activities that threaten biodiversity. Consequently, the Company has set priorities under the Guidelines and is working systematically to minimize both impacts. Each of Honda's key business sites in Japan also conducts a survey on the actual conditions of biodiversity and is promoting various activities that are appropriate for the applicable species, such as thinning, pruning and eradication of non-native species. Moreover, Honda continues to carry out fixed-point observation and reporting on ecosystems in collaboration with "Monitoring Sites 1000" (a project for promoting the monitoring of survey sites of important ecosystems) implemented by the Japanese government as a member of the International Union for Conservation of Nature and Natural Resources (IUCN), which creates an annual Red List.

PDF

Honda Biodiversity Guidelines

> https://global.honda/content/dam/site/global/about/cq_img/sustainability/environment/report/report-biodiversity-en.pdf

Management and Reduction of Chemical Substances

Honda works to ensure the appropriate management and reduction of chemical substances contained in automotive components from the product design and development stages in order to reduce those materials that impact the environment.

Laws and regulations have been introduced in each country to ensure the appropriate management of chemical substances and the reduction of harmful substances contained in automotive components. These legislations are based on a goal set by the United Nations in 2002 of minimizing the impact of chemical substances on people and the environment by 2020.

The International Material Data System (IMDS), a mechanism for collecting information throughout the supply chain on materials and chemical substances contained in components making up the vehicle, was developed in response to this trend largely by the German Association of the Automotive Industry. Honda is also tabulating and managing chemical substances via our independently developed global management system called the Management System of Chemical Substances (MoCS), which collects information based on IMDS.

Honda is moving ahead with the reduction of four types of heavy metals (lead, mercury, hexavalent chromium and cadmium) that are considered to have negative impacts on the environment while promoting management of chemical substances via MoCS. As an example, for all new and redesigned vehicles sold in Japan in FY2019, components that do not use mercury were chosen for combination meters. The Company is striving to eliminate the use of mercury on a voluntary basis.

Environmental Data

Scope of Consolidation

Environmental data are provided on pages 61 to 64 for the year ended March 31, 2019 from Honda Motor Co., Ltd. and 435 consolidated subsidiaries and affiliated companies in Japan and outside Japan (as of December 31, 2018).

Honda GHG Emissions in FY2019

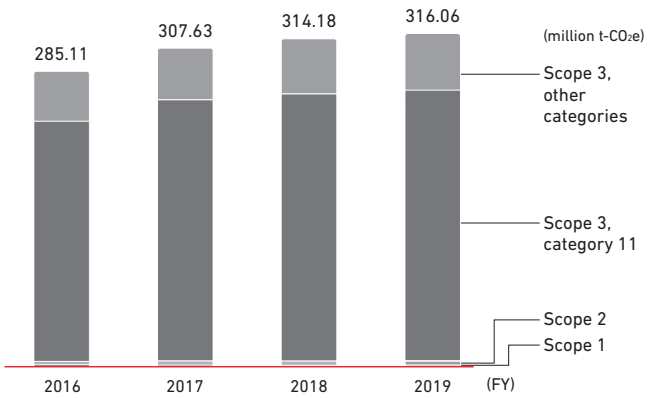
As a responsible company operating in the mobility industry, Honda believes in the importance of calculating and disclosing GHG emissions in order to drive progress in initiatives to reduce global emissions.

As the first milestone in this endeavor, in August 2012 Honda disclosed estimates of all FY2012 GHG emissions from its entire value chain in conformity with the GHG Protocol*, currently the world's most widely used GHG emissions accounting standard. The Company became the world's first mobility company to release estimates of emissions not only from its own business activities (Scopes 1 and 2) but also from all upstream and downstream activities (Scope 3), extending from the procurement of raw materials to the transportation and customer use of Honda products and ending with the treatment of end-of-life products.

Honda continues to calculate and report its GHG emissions from its entire value chain and is making improvements to get a more accurate reading of emissions. The Company is doing this in Scope 3 (other indirect emissions), for example, by widening the boundaries of data collection for categories that account for the largest proportion of estimated emissions, and by improving the accuracy of calculation methods.

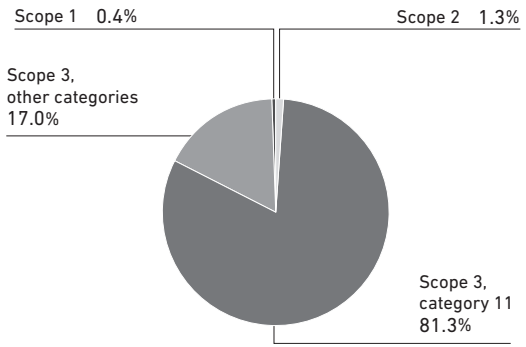
The calculations for FY2019 show that GHG emissions from Honda business activities were 5.47 million t-CO_2e, and total emissions from the value chain, including other indirect emissions, were 316.06 million t-CO_2e. Honda will continue to monitor and manage data and utilize this information in the actual implementation of emissions reduction measures.

Total GHG emissions



• Correction of previous data error

Breakdown of total FY2019 GHG emissions



* The Greenhouse Gas Protocol: Development of the GHG Protocol was led by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI).

environment

Environmental Data

Reducing GHG Emissions from Use of Sold Products

Scope 3, category 11 emissions (emissions from use of products sold to Honda customers) account for more than 80% of GHG emissions from Honda's entire value chain. This means finding ways to reduce emissions related to customer use of Honda products is of primary importance in reducing emissions from Honda's value chain. To this end, the Company has established the target of reducing global average product CO_2 emissions intensity by 30% by 2020 (compared with 2000 levels), and is working to improve the fuel efficiency of our products.

Promoting Life-Cycle Assessment (LCA)

Honda has been developing its own methods to reduce the environmental impacts of its business activities and across product life cycles, from production through disposal.

In March 2002, the Company built the Honda Life-Cycle Assessment (LCA) Data System, a system for quantitatively measuring CO_2 emissions from all business activities. Since then Honda has been making focused efforts to meet reduction targets set for each business area including production, purchasing, sales and service, administration and transportation.

Honda is also calculating and assessing CO_2 emissions across product life cycles, from raw material procurement to product disposal for the entire vehicle, and making use of this information in its efforts to reduce CO_2 emissions for each model. This approach is also important when considering applications for the next-generation technologies that will become more diverse further in the future. Accordingly, the Company will utilize the above information further to develop low-carbon solutions at the development stage, for instance.

Environmental Data

Honda's total GHG emissions

(million t-CO_2e)

			FY2016	FY2017	FY2018	FY2019
GHG emissions from the entire Honda value chain		(Scopes 1, 2, and 3)	285.11	307.63	314.18	316.06
Breakdown	Direct emissions from business activities	(Scope 1)	1.31	1.28	1.35	1.38 ☑
	Indirect emissions from energy use	(Scope 2)	3.84	4.00	4.17	4.09 ☑
	Emissions from Honda business activities	(total of Scopes 1 and 2)	5.15	5.28	5.52	5.47
	Emissions from customer use of sold products	(Scope 3, category 11)	231.77	252.59	255.56	256.87 ☑
	Other emissions	(Scope 3, other categories)	48.19	49.76	53.10	53.72
	Other indirect emissions	(total of Scope 3)	279.96	302.35	308.66	310.59

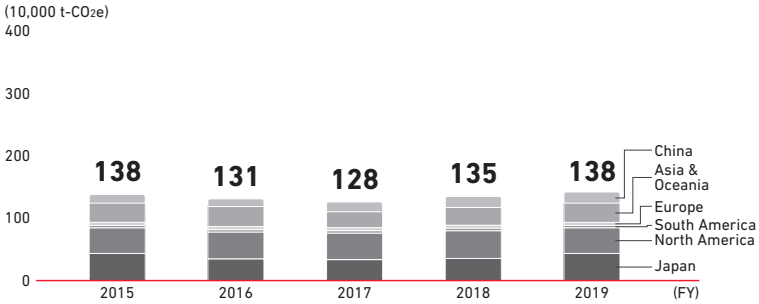
- Scope 1: Direct GHG emissions from business activities, as defined by the GHG Protocol (e.g., Combustion of fuel oil at a manufacturing plant, emissions from work vehicles and company cars). The Scope 1 figures presented in this report include all GHGs emitted directly by Honda Motor Co., Ltd. and its consolidated subsidiaries and affiliated companies worldwide (excluding relatively small-scale companies). In Japan, Honda uses the emission factor based on the Act on Promotion of Climate Change Countermeasures and in each region except Japan, emission factors from the 2006 IPCC Guidelines for National GHG Inventories. Figures for climate change potential coefficient are derived from the IPCC's Fourth Assessment Report (2007).
- Scope 2: Indirect GHG emissions from a company's use of energy, as defined by the GHG Protocol (e.g., electrical energy used by a manufacturing plant or office). The Scope 2 figures presented in this report include all GHGs emitted directly by Honda Motor Co., Ltd. and its consolidated subsidiaries and affiliated companies worldwide (excluding relatively small-scale companies). Honda adopts to the GHG Protocol's standard market-based method. In Japan, Honda uses electricity utilities emission factors based on the Act on Promotion of Global Warming Countermeasures. In each region except Japan, Honda uses electricity utilities emission factors and latest regional emission factors, and if unavailable, national emission factors from the IEA's Emissions from Fuel Combustion.
- Scope 3: Other indirect GHG emissions not included in Scope 1 and Scope 2, as defined by the GHG Protocol. Scope 3 is systematically broken down into 15 categories (e.g., category 11 includes emissions arising from the use of sold products; category 12 includes emissions arising from the end-of-life treatment of sold products).
- The "Scope 3, category 11" figures presented in this report represent the cumulative amount of GHGs that will have been emitted by products sold by Honda in the applicable fiscal year (automobiles, motorcycles, power products and aircraft) as a result of their use by customers from the time they received those products until they dispose of them in the future. Calculations cover the emission of approximately 90% of all motorcycles, automobiles, power products and aircraft sold worldwide under the Honda brand name. These emissions are calculated using the following formula for each model and adding the results: CO_2 emissions intensity x Annual distance traveled or Annual usage in hours x Product lifetime in years x Annual unit sales.
  - CO_2 emissions intensity: Average annual mileage of each model set at same value per region or Annual consumption of each model and Average annual used time distinguish general business from business use.
  - Annual mileage / Lifetime years of use: Referring to IEA estimation model, "SMP Model" etc.
  - CO_2 emission factor: Referring to the GHG calculation guidelines that public authorities in each region issued. If there are no appropriate guidelines, reference from the ones of Japanese.
    - Correction of previous data error
- The "Scope 3, other categories" figures presented in this report are the sum of emissions from categories 1, 2, 3, 4, 5, 6, 7, 9, 10, 12 and 15. As per the GHG Protocol, Honda excludes categories 8, 13 and 14 from its calculations, as these categories are either not part of Honda business activities or emissions from these categories are accounted for in other categories.

Data indicated with ☑ received the independent practitioner's assurance.

Environmental Data

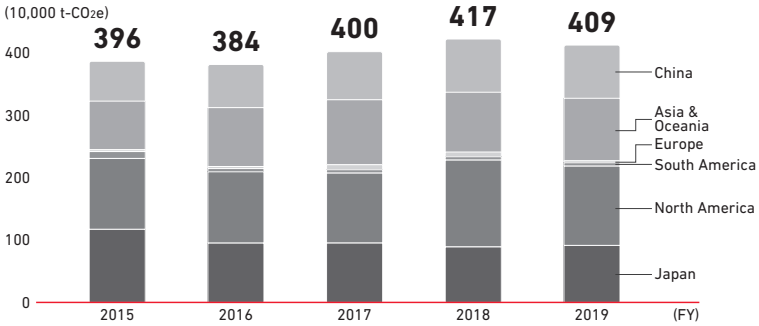
GHG emissions

Direct emissions (Scope1)



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Emissions amount = Σ [Volume of fuel usage x CO_2 emission factor] + CO_2 emissions from non-energy sources + Σ [Volume of non-CO_2 GHG emissions x Global warming factors]
Emission factors
Japan: Emission factors based on the Act on Promotion of Global Warming Countermeasures
Regions outside of Japan: Emission factors from 2006 IPCC Guidelines for National GHG Inventories Figures for global warming potential coefficient: The IPCC's Fourth Assessment Report (2007)
- Figures of GHG emissions from non-energy source include some estimated values.
- Calculations are mainly based on emissions from stationary combustion sources.
- Expressed in three significant digits
- Correction of previous data error

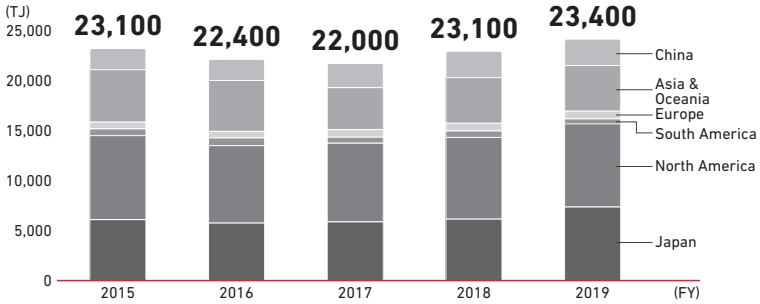
Indirect emissions (Scope2)



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group
Calculation method: Emissions amount = Σ (Purchased electricity consumption, etc.*1 x emission factor)
Honda adopts to the GHG Protocol's standard market-based method.
Emission factor:
Japan: Electricity utilities emission factors based on the Act on Promotion of Global Warming Countermeasures
Regions outside of Japan: Electricity utilities emission factors and latest regional emission factors, if unavailable, national emission factors from the IEA's Emissions from Fuel Combustion.
*1 Other includes steam and hot water, the emission factors is based on the Act on Promotion of Global Warming Countermeasures.
- Expressed in three significant digits
- Correction of previous data error

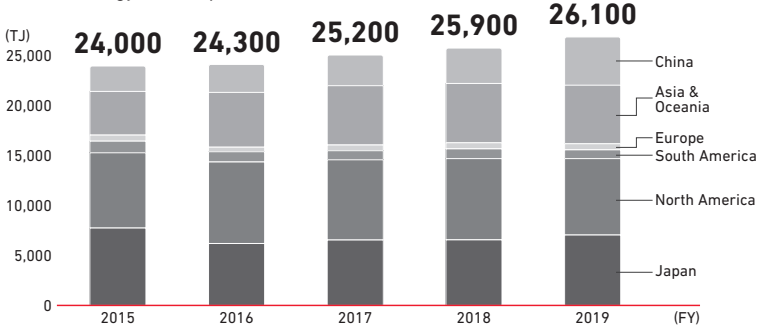
Energy consumption

Direct energy consumption



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Consumption amount = Σ (Fuel consumption x unit calorific value)
Unit calorific value:
Japan: Unit calorific value from Reporting and Disclosure System based on the Act on Promotion of Global Warming Countermeasures
Regions outside of Japan: Derived from 2006 IPCC Guidelines for National GHG Inventories
- Calculations are mainly based on energy consumed by stationary exhaust sources.
- A terajoule (TJ) is a unit of energy, "tera" meaning 10^{12}.
- Expressed in three significant digits
- Correction of previous data error

Indirect energy consumption

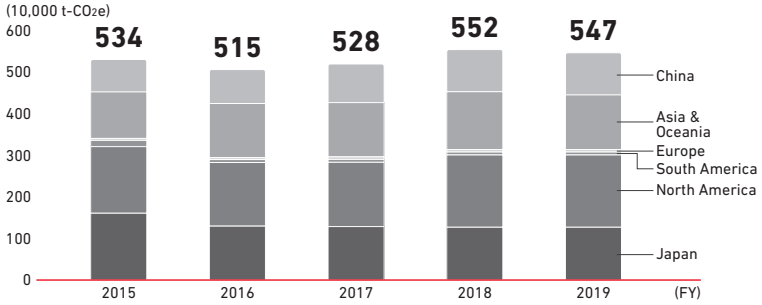


Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Consumption amount = Σ (Purchased electricity consumption etc.*1 x unit calorific value)
Purchased electricity has been converted to joules using the international standard 3.6 GJ/MWh.
*1 Other
Unit calorific value:
Japan: Unit calorific value from Reporting and Disclosure System based on the Act on Promotion of Global Warming Countermeasures
Regions outside of Japan: 2006 IPCC Guidelines for National GHG Inventories
- Expressed in three significant digits

environment

Environmental Data

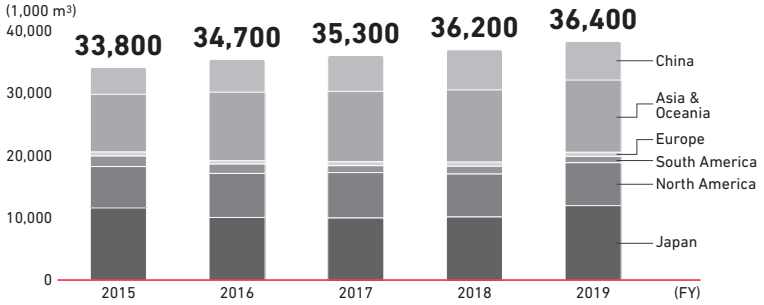
Total GHG emissions (Scope1 and 2) ☑



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Total GHG emissions (Scope 1 and 2) = Direct GHG emissions + Indirect GHG emissions
- Expressed in three significant digits
- Correction of previous data error

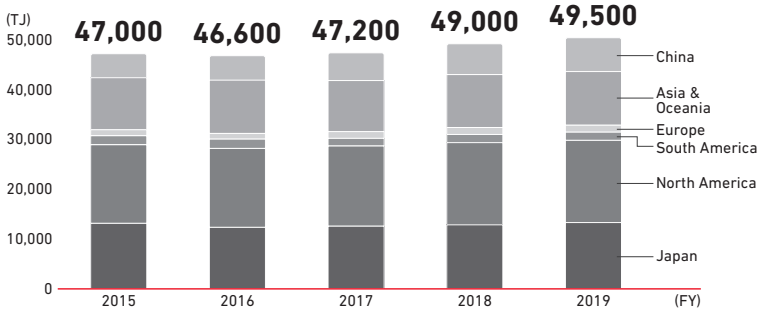
Water intake/wastewater volume

Amount of water intake ☑



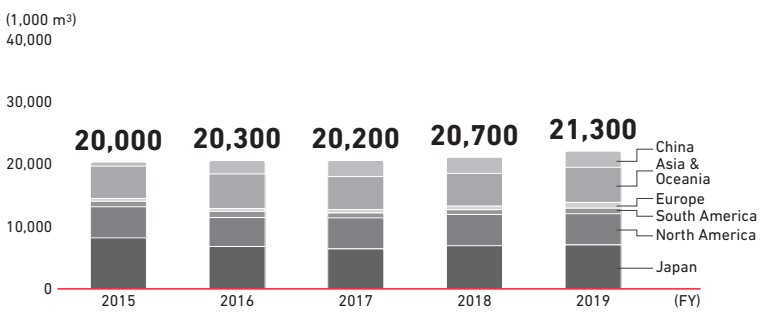
Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Amount of water intake = Σ (Purchased from the water facilities + Groundwater intake + Rainwater utilization amount + Surface such as rivers water intake)
- Expressed in three significant digits

Total energy consumption ☑



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Total energy consumption = Direct energy consumption + Indirect energy consumption
- Expressed in three significant digits

Wastewater volume ☑



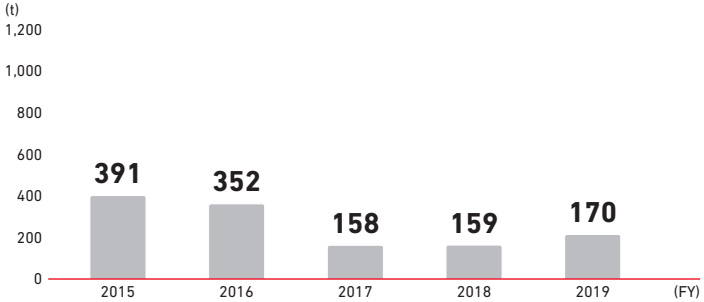
Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Volume amount = Σ (Wastewater processed by other companies + Discharge directly into public waters)
- Figures include some estimated values.
- Expressed in three significant digits

environment

Environmental Data

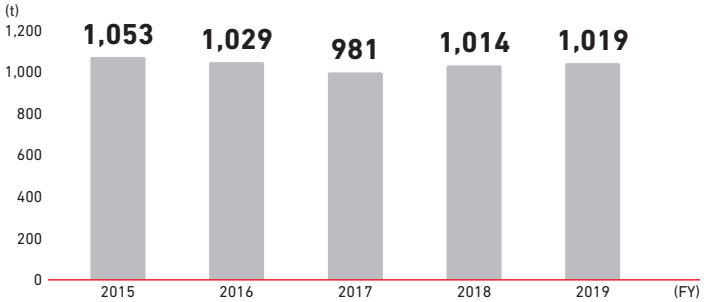
Atmospheric pollutants

SOx emissions ☑



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Emissions amount = Σ (Fuel consumption x Density x Sulfur content x 64/32)
• Calculations are based on fuel consumption.
Density: Derived from the translation coefficient list in Statistics Information by Petroleum Association of Japan
Sulfur content: Derived from Act on the Quality Control of Gasoline and Other Fuels or the standard of LP gas (JIS K 2240)

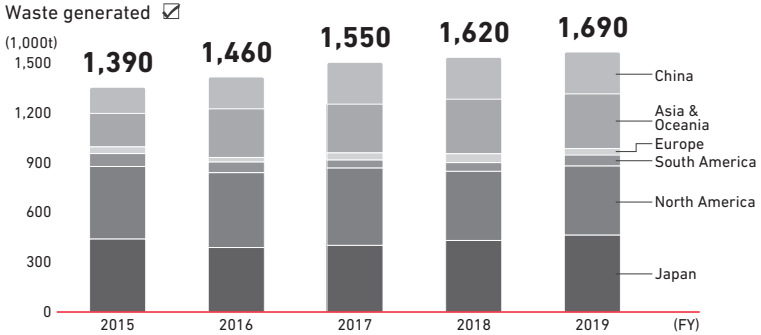
NOx emissions ☑



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Emissions amount = Σ (Fuel consumption x Emission factor for each fuel)
• Calculations are based on fuel consumption.
Emission factor for each fuel: Derived from NOx emissions calculation table (combustion facilities that do not measure the amount of exhaust gas, etc.) on Environmental Activity Evaluation Program (Ministry of the Environment).

Waste generated

Waste generated ☑



Companies covered: All consolidated subsidiaries and affiliated companies of the Honda Group (excluding relatively small-scale companies)
Calculation method: Emissions amount = Σ (Industrial waste + general administrative waste + valuable resources emission)
• However, regions outside of Japan are beyond the scope of data for industrial waste (excluding harmful waste defined in accordance with regulations in respective countries) and general administrative waste.
• Expressed in three significant digits

Environmental Data

Cost of environmental conservation activities and investments in FY2019

Category		Major activities and investments	Investments (millions of yen)	Expenditures (millions of yen)
Business area costs	Pollution prevention costs	● Air, water, and soil pollution prevention	101	218
	Global environmental conservation costs	● Global warming mitigation, ozone depletion prevention and other conservation activities	1,558	3,393
	Recycling costs	● Waste processing, treatment, reduction, elimination and recycling	108	433
Upstream/ downstream costs		● Collection, recycling, resale and proper disposal of products manufactured and sold ● Industry organization and other membership fees	111	144
Management costs		● Installation, operation and acquisition of certification for environmental management systems ● Environmental impact monitoring and measurement ● Management and training of associates and organizations responsible for environmental conservation (expenses for environment-related communications activities)	31	1,695
Research and development costs		● Research, development, planning and design for impact reductions across product life cycles (R&D costs for advanced eco-cars, including EVs and PHVs)	3,827	110,668
Local conservation costs		● Environmental improvement measures, including ecosystem protection, cleanups, green space development and natural landscape conservation ● Local conservation and communication activities (beach cleanups and watershed conservation activities)	0	307
Environmental damage costs		● Remediation of polluted soil	0	2
Total			5,736	116,860

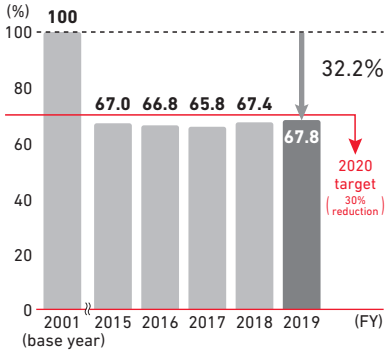
- Companies covered: Honda Motor Co., Ltd., Honda R&D Co., Ltd., Honda Engineering Co., Ltd. and Honda Access Corporation
- Accounting period: April 1, 2018 to March 31, 2019
- Some figures are estimated values.
- Guidelines, guidebooks and other environmental accounting publications by Japan's Ministry of the Environment were used as references.
- Figures were calculated on a cash-flow basis with depreciation and amortization expenses excluded.

Economic benefits (Effect on revenue and expenses)

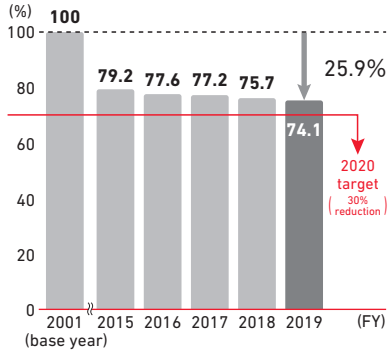
		FY2019 (millions of yen)
Income from sale of valuable waste materials		6,383
Cost reductions from saved energy	Installed technologies	134
	Behavioral changes, etc.	77
Total		6,594

Current status of achievement vs. 2020 product CO_2 emissions intensity reduction targets

Motorcycles (g/km)

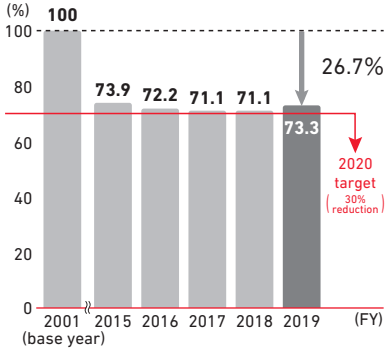


Automobiles (g/km)



・Correction of previous data error

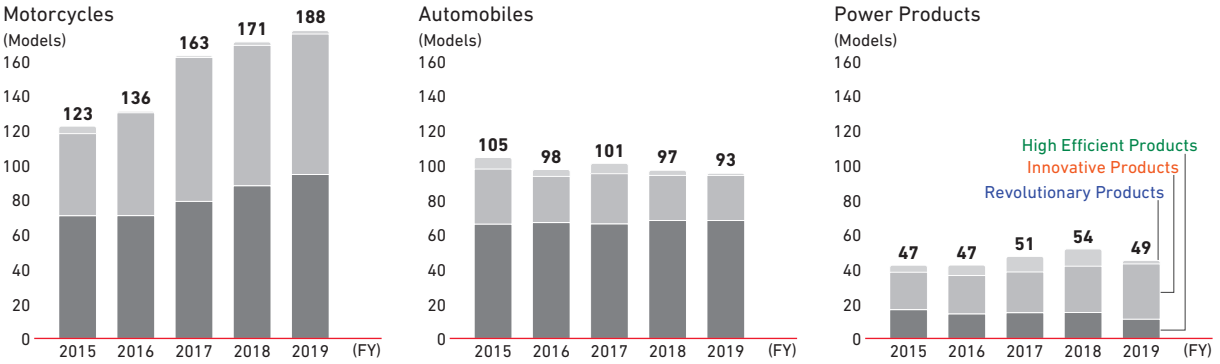
Power Products (kg/hour)



environment

Environmental Data

Global number of HEPS-compliant models



Number of HEPS-compliant models by region (FY2019)