

Mitsubishi Electric Group Environmental Report 2020

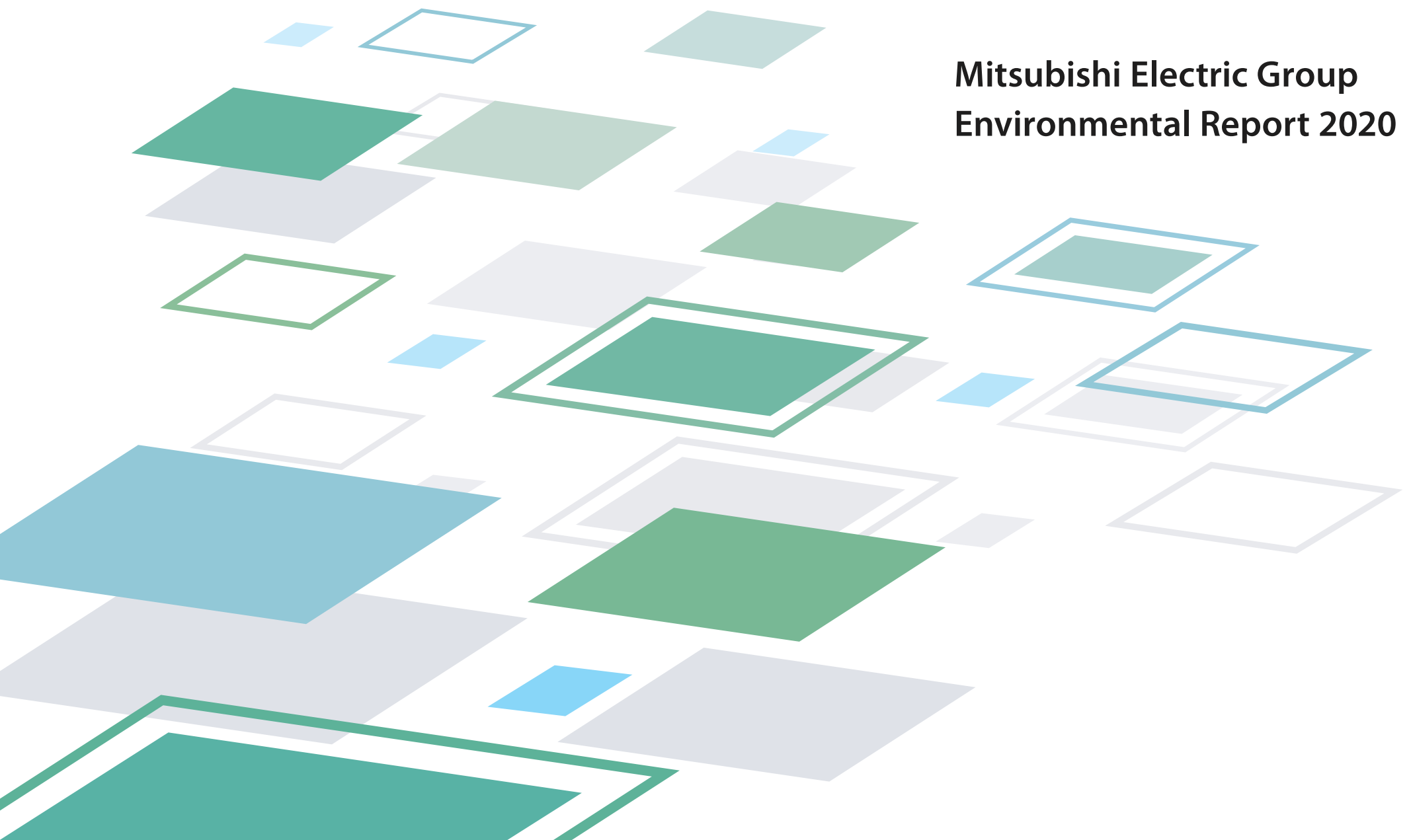


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About This Report

This report provides information about the environmental initiatives of the Mitsubishi Electric Group. It primarily reports on significant activities, events, and changes that have occurred in fiscal 2020 (until March 31, 2020). Bearing in mind the PDCA (plan-do-check-act) activity cycle, in reporting our activities we tried to go beyond simply presenting our principles and the actual results of activities to date, to also include information on future policies and issues.

Period Covered by This Report

April 1, 2019–March 31, 2020

* Also includes some information on policies, targets, and plans occurring after the close of fiscal 2021.

Scope of This Report

Covers the activities of Mitsubishi Electric Corporation, 73 affiliates in Japan, and 25 overseas affiliates (total of 99 companies).

References

- ISO 26000
- GRI Standards, Global Reporting Initiative
- Environmental Reporting Guidelines (2018), Ministry of the Environment
- Business Owner Environmental Performance Indicator Guideline (2002), Ministry of the Environment
- Environmental Accounting Guidelines (2005), Ministry of the Environment

Contact Us About This Report

We endeavor to fulfill our responsibility of presenting information to the public in order to broaden our range of communication with stakeholders. We appreciate any and all frank and honest feedback intended to further improve the report.

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From the President



By sharing technologies accumulated and environmental values with all stakeholders, we're solving issues together with them.

T. Sugiyama
Takeshi Sugiyama
President & CEO

We would like to extend our sincere condolences to people who have lost their loved ones, friends and associates during the COVID-19 pandemic, and wish to express our heartfelt sympathy to others affected by the virus in whatever way. Placing our utmost priority on the health and safety of all stakeholders including customers, suppliers, employees, and their families, Mitsubishi Electric will continue providing the businesses needed to fulfill its social responsibilities as a corporation that plays a key role in maintaining civilian life. To this end, we are committed to ensuring a stable supply of products, providing necessary services, and maintaining customer support.

Promoting Initiatives to Achieve “Environmental Vision 2021”

Since the formulation of “Environmental Vision 2021” in fiscal 2008, the Mitsubishi Electric Group has been implementing various environmental activities. As we enter fiscal 2021, the final year of Environmental Vision 2021, our initiatives have steadily produced results that contribute to realizing a low-carbon, recycling-based society capable of living in harmony with nature.”

To contribute to creating a low-carbon society, we have drastically improved energy efficiency through introducing technological innovations for a wide range of products, from key components such as power devices to stand-alone products such as air conditioners. At the same time, we are evolving our solutions business by taking advantage of our collective strengths to achieve success in areas such developing electric power supply networks that promote the use and dissemination of zero-emission buildings (ZEBs) and renewable energy. As part of our efforts towards creating a recycling-based society, we promote the effective use of resources, reinforcement of the collection and recycling of home electrical appliances, and reducing the size and weight of products. In addition to these initiatives, our reuse/repair business operates in a way that our products remain in service as long as possible. In our efforts towards creating a society in tune with nature, we are observing changes in the global environment and working to find ways to swiftly respond to extraordinary weather. At the same time, we are committed to preserving biodiversity at our business sites and their surrounding areas.

As a result, expectations are high that we will achieve our target figures. These days, the feedback we are receiving convinces us that each employee is now taking on her/his daily tasks with greater environmental awareness. We believe that this is one of the results our initiatives have produced.

Additionally, our proactive approach and the communication of its outcomes have led to the external recognition of the Mitsubishi Electric Group’s environmental activities. For instance, CDP*1 placed Mitsubishi Electric on the A List in two categories, “Climate Change” and “Water Security,” for the third and fourth consecutive years, respectively.

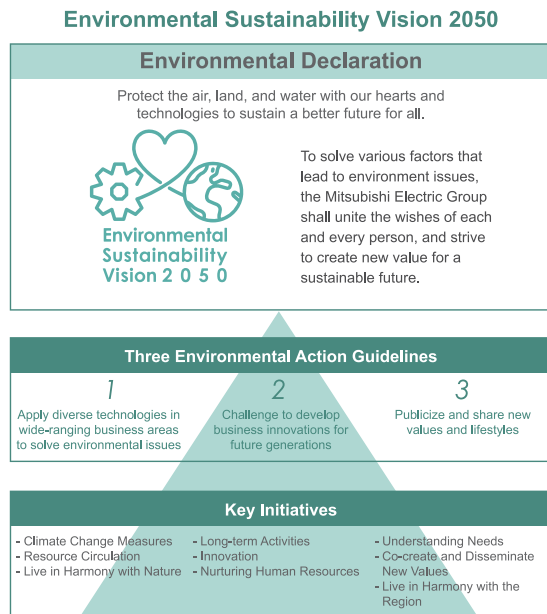
Contributing to the Protection of Air, Land, and Water with New Environmental Vision

In June 2019, the Mitsubishi Electric Group announced its next long-term environmental management vision, “Environmental Sustainability Vision 2050.”

The business operations of the Group involve a number of stakeholders, including customers, suppliers, and employees. Therefore, in addition to having a responsibility to contribute to environmental preservation, it has a substantial influence on other areas of society. Environmental Sustainability Vision 2050 is based on this recognition and confirms our aim to move forward into the future hand-in-hand with all stakeholders.

The vision includes a Group environmental declaration: “Protect the air, land, and water with our hearts and technologies to sustain a better future for all.” Air, land, and water are vital elements for all living things on the Earth. Keeping the awareness of these three essential elements firmly in mind, we will conduct business while always considering to which element we can contribute and through which specific Mitsubishi Electric Group operation it can be accomplished. In addition, while enhancing the technological prowess we possess, we will share our thoughts on the environment and technologies not only within the Mitsubishi Electric Group, but with all stakeholders, doing so in order to achieve a sustainable future.

Under the three guidelines set forth in Environmental Sustainability Vision 2050, all employees are expected to be highly motivated and take specific actions. By doing so, we aim to fulfill our duties as a corporation and lead to the Mitsubishi Electric Group becoming a corporate group needed by the world.



Focusing Business Operations on Solutions for Social/Environmental Issues

The Mitsubishi Electric Group has a management strategy of offering integrated solutions that combine strengths inside and outside of the Group in the four areas of “Lifestyles,” “Industry,” “Infrastructure,” and “Mobility.” In this management strategy, the creation of new values is placed at the center, which should lead to resolving various social issues, including environmental conservation.

In other words, in addition to contributing to reducing environmental impact through improvements in products and systems, we propose solutions for a wide variety of environmental issues. Through these proposals, we hope to contribute to achieving a circular economy,*2 the concept of which has been attracting much attention in recent years. We will utilize all of the assets the Mitsubishi Electric Group holds in order to bring about innovation. At the same time, we will focus on developing human resources who have high levels of environmental awareness and the technological prowess to drive our innovation efforts.

It is a corporate responsibility to conduct business activities in a way that promotes creating a sustainable society and further supports other businesses that contribute to the environment. These activities eventually lead to sustainable corporate growth as well. This idea has a common ground with the globally shared SDGs.*3 We believe that we can contribute to achieving the 17 SDGs by pressing forward with our policies.



Committed to Sharing Values and Communicating the Message—“Living an Eco-friendly Lifestyle Feels Good”

In order to achieve the vision described so far, it is imperative to share thoughts on the environment inside and outside of the Group, and to work on solutions for environmental issues in cooperation with our stakeholders. I feel that, in the future society, it will be important for people to personally believe in the value of, “living in harmony with nature feels good.” If possible, “try not to do things that place a burden on the environment”; this is the mindset required for all people involved in environmental activities. Even by starting with a small act that anybody can do easily; for example, using your own shopping bags, cups and bottles regularly. Sending out this type of message could lead to change.

Companies are required to send out information in various formats. The Mitsubishi Electric Group is promoting information disclosure based on various guidelines, including CDP and TCFD.*4 We are also planning to communicate our initiatives and proposals for creating a sustainable society to the outside world.

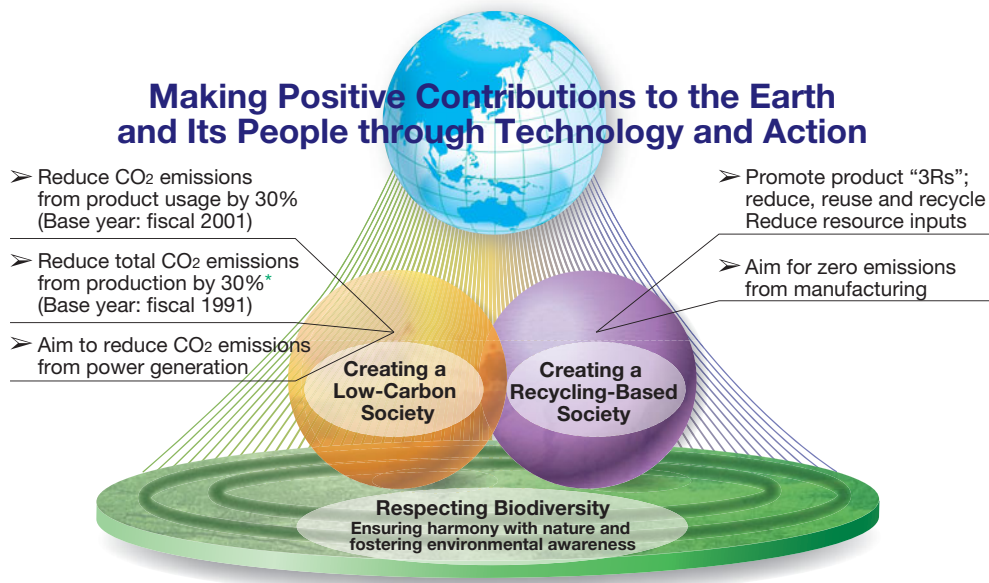
July 6, 2020

*1 CDP: formally called Carbon Disclosure Project. International nongovernmental organization (NGO) that investigates, evaluates, and discloses the environmental efforts of companies and cities.
 *2 Circular economy: New economic activities that bring sustainability to both the environment and the economy by circulating resources and products.
 *3 SDGs: Sustainable Development Goals: Included in the “2030 Agenda for Sustainable Development” formulated by the United Nations General Assembly in September 2015.
 *4 TCFD (Task Force on Climate-related Financial Disclosure): Organization set up in 2016 by the Financial Stability Board (FSB) to promote stability of the global financial system. It encourages corporations to disclose climate-related information that affects finance.

Environmental Vision/Policy

Environmental Vision 2021

Environmental Vision 2021 is the long-term environmental management vision of the Mitsubishi Electric Group. With the guideline of making positive contributions to the earth and its people through technology and action, the Company is working toward the realization of a sustainable society utilizing wide-ranging and sophisticated technologies as well as the promotion of proactive and ongoing actions by our employees. The Vision sets 2021 as its target year, coinciding with the 100th anniversary of Mitsubishi Electric's founding.



* Mitsubishi Electric Corporation: Base year fiscal 1991;
Affiliated companies in Japan: Base year fiscal 2001;
Affiliated companies outside Japan: Base year fiscal 2006

Creating a Low-Carbon Society

To help create a low-carbon society, we will:

- Work to create and popularize innovative energy-saving products to achieve the goal of reducing CO₂ emissions from product usage by 30% compared to fiscal 2001
- Strive to reduce CO₂ emissions from product production by 30% (520,000 tons) across the entire Mitsubishi Electric Group as a prerequisite for sustainable growth
- Reduce CO₂ emissions from power generation and contribute to the creation of a low-carbon society by supplying the power industry with products and systems that do not emit CO₂, including solar power and nuclear power systems

Creating a Recycling-Based Society

To help create a recycling-based society, we will:

- Develop sustainable resource cycles by reducing waste output, reusing resources and recycling resources to give them new life
- Strive for zero waste output from production processes

Respecting Biodiversity: Ensuring Harmony with Nature and Fostering Environmental Awareness

To help ensure harmony with nature and cultivate greater environmental awareness, we will:

- Strive to respect biodiversity in our business activities
- Teach employees the importance of maintaining harmony with nature by providing opportunities for nature observation and direct participation in conservation activities to inculcate autonomous actions for the sake of the environment
- Engage in nature conservation activities to restore damaged woodland environments

Environmental Sustainability Vision 2050

Under its Environmental Vision 2021, Mitsubishi Electric has been carrying out initiatives to realize a low-carbon, recycling-based society that functions in harmony with nature, reflecting Mitsubishi Electric’s resolve to operate as a responsible, eco-minded corporate citizen. Looking ahead to April 2021 and well beyond, the company’s new Environmental Sustainability Vision 2050 positions environmental protection as an even greater corporate priority and stipulates increased initiatives toward this end. The vision establishes Mitsubishi Electric’s future course for implementing key initiatives based on its Environmental Declaration and Three Environmental Action Guidelines toward 2050.

Environmental Sustainability Vision 2050

Environmental Declaration

Protect the air, land, and water with our hearts and technologies to sustain a better future for all.



To solve various factors that lead to environment issues, the Mitsubishi Electric Group shall unite the wishes of each and every person, and strive to create new value for a sustainable future.



Three Environmental Action Guidelines

1	2	3
Apply diverse technologies in wide-ranging business areas to solve environmental issues	Challenge to develop business innovations for future generations	Publicize and share new values and lifestyles

Key Initiatives

<ul style="list-style-type: none"> - Climate Change Measures - Resource Circulation - Live in Harmony with Nature 	<ul style="list-style-type: none"> - Long-term Activities - Innovation - Nurturing Human Resources 	<ul style="list-style-type: none"> - Understanding Needs - Co-create and Disseminate New Values - Live in Harmony with the Region
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Apply Diverse Technologies in Wide-Ranging Business Areas to Solve Environmental Issues

The Mitsubishi Electric Group shall utilize diverse technological assets throughout wide-ranging business areas, and across the entire value chain, to solve various environmental issues, including climate change, resource recycling and coexisting harmoniously with nature.

Key Activities

Climate Change Measures

- 1) Promoting and disseminating outstanding energy-saving products, systems, services and renewable energy businesses, together with our stakeholders, we will contribute to reducing greenhouse gases worldwide.
- 2) Respecting long-term goals based on international agreements, we will promote the reduction of greenhouse gases throughout the value chain, from development, design, procurement of raw materials and production through sales, distribution, use and disposal. At present, our target is to reduce CO₂ emissions 30% by 2030 and more than 80% by 2050.
- 3) Observing changes in the global environment, we will provide solutions that contribute to minimizing the risks of natural disasters.

Resource Circulation

- 1) Reducing the size and weight of products, we will consider the use of recycled materials and recyclability rate of the products and systems we produce.
- 2) Eliminating resource waste throughout the value chain, we will strive to maximize the effective use of resources.
- 3) We will work to expand the supply of safe, clean water globally, as well as to enforce water treatment that does not pollute oceans and rivers.
- 4) We will promote the effective use of water taking the water environment of each region into consideration.
- 5) We will promote resource recycling businesses globally, such as reuse, repair of products/systems and waste reduction.
- 6) We will aim to achieve 100% effective use of wastes, such as plastics, generated during manufacturing processes.

Live in Harmony with Nature

- 1) Throughout the Group, we will carry out activities to preserve biodiversity in the mountains, rivers, and oceans, and at all business sites, and promote the development of local environments and human resources to be passed to future generations.
- 2) We will work to control, suppress, substitute, and properly dispose of harmful substances that may affect the natural environment.

Challenge to Develop Business Innovations for Future Generations

The Mitsubishi Electric Group shall draw on internal and external strengths, combine them when required to resolve difficult issues, and take on the challenge of developing technologies and business innovations for future generations.

Key Activities

Long-term Activities

- 1) We will set specific indices and action items while considering future prospects in the mid-term Environmental Plan formulated every three years.
- 2) We will verify the validity of long-term goals approximately every five years, doing so considering international agreements, foreign affairs and business conditions.

Innovation

- 1) We will cooperate with other companies and institutions, and use our technological assets, technologies and business synergies to create innovative technologies and solutions.
- 2) We will proactively adopt innovational technologies and solutions that enable us to lead manufacturing in future generations.

Nurturing Human Resources

- 1) We will foster a corporate culture in which employees, as ordinary citizens, take the initiative on creating new lifestyles in harmony with nature.
- 2) We will develop highly specialized human resources who accept diverse values, and proactively work on environmental issues.

Publicize and Share New Values and Lifestyles

The Mitsubishi Electric Group shall promote active dialogue, collaboration, and co-creation with all stakeholders, publicizing and sharing new values and lifestyles that will result in living comfortably, in harmony with nature.

Key Activities

Understanding Needs

- 1) We will work to understand our customers' needs and expectations for the environment through sales activities, exhibitions, events, and other initiatives.
- 2) We will hold discussions with stakeholders, and confirm the validity of our environmental targets and measures, to promote more effective environmental activities.

Co-create and Disseminate New Values

- 1) We will propose new lifestyles that provide the pleasure of contributing to the environment through the use of our products, systems, and services.

Live in Harmony with the Region

- 1) We will hold discussions with local residents and municipalities, and contribute to creating a better local environment, including Satoyama conservation and bio-diversity preservation activities at business sites.

Environmental Activities for a Sustainable Future



Mitsubishi Electric Group Environmental Policy

Based on its Purpose, “We, the Mitsubishi Electric Group, will contribute to the realization of a vibrant and sustainable society through continuous technological innovation and ceaseless creativity,” the Mitsubishi Electric Group is committed to realizing an affluent society that achieves both sustainability and safe, secure, and comfortable lifestyles. In particular, finding solutions to environmental problems such as climate change, resource depletion, and the loss of biodiversity is positioned as one of the most important issues that the Group must address as it strives to create new value and contribute to the realization of a sustainable future.

Utilizing our accumulated and newly developed state-of-the-art technologies, we will draw on strengths of a wide variety of businesses, both within and outside of the Group, to provide products and services that contribute to resolving climate change issues and creating a recycling-based society. At the same time, we will strive to create innovations and propose new values that support future generations. We are also working to minimize the impact of our business activities on the global environment and to preserve biodiversity by reducing greenhouse gas emissions and promoting the recycling of resources.

As a good corporate citizen, we will work with our employees, their families, and local communities to foster environmental awareness and expand the sphere of our activities that contribute to society. We will actively disseminate information on our environmental initiatives in the effort to promote a mutual understanding with society. Based on the recognition that laws represent the minimum social norms, we will not only comply with laws, but also develop a keen sensitivity to changes in society, and always conduct business activities giving appropriate consideration for the environment.

Under the Environmental Declaration, “Protect the air, land, and water with our hearts and technologies to sustain a better future for all,” all employees of the Mitsubishi Electric Group will contribute with pride and passion to enrich lives and improve the global environment.

January 2021

T. Sugiyama
Takeshi Sugiyama
President & CEO

Environmental Statement: Eco Changes

Eco Changes is the Mitsubishi Electric Group’s environmental statement, and expresses the Group’s stance on environmental management. Through a wide range of businesses for homes, offices, factories, infrastructure and even outer space, we strive to help solve environmental issues such as climate change, resource depletion, and biodiversity loss. In line with “Changes for the Better,” which reflects our drive to always seek improvement and make changes accordingly, Eco Changes represents our efforts to work together with our customers to change the global environment for the better.

Amid a worsening of environmental problems, determining how to build a sustainable society is a high priority. As a company, we pursue a balance of a comfortable society for people and an environmentally responsible modern civilization based on contributions to environmental concern and steady improvement. Eco Changes does not represent mere words or image-building; rather, through its business activities, the Mitsubishi Electric Group will enact Eco Changes around the world as corporate citizens in pursuit of environmental consideration and environmental contribution that are grounded in reality. Eco Changes was announced in June 2009 in Japan, in June 2010 overseas and in April 2012 in China.



Eco Changes Logo Design Concept

The logo’s vivid green sphere represents the world of changes for the better, from in the home to outer space. The “movement” design expresses the improvements made by employees, and the taking of immediate action along with our customers to bring positive changes to society.

Strategy for Climate Change

Financial Information Based on Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

The Mitsubishi Electric Group has expressed its support for the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures). In line with these recommendations, the Group discloses relevant information on climate change.

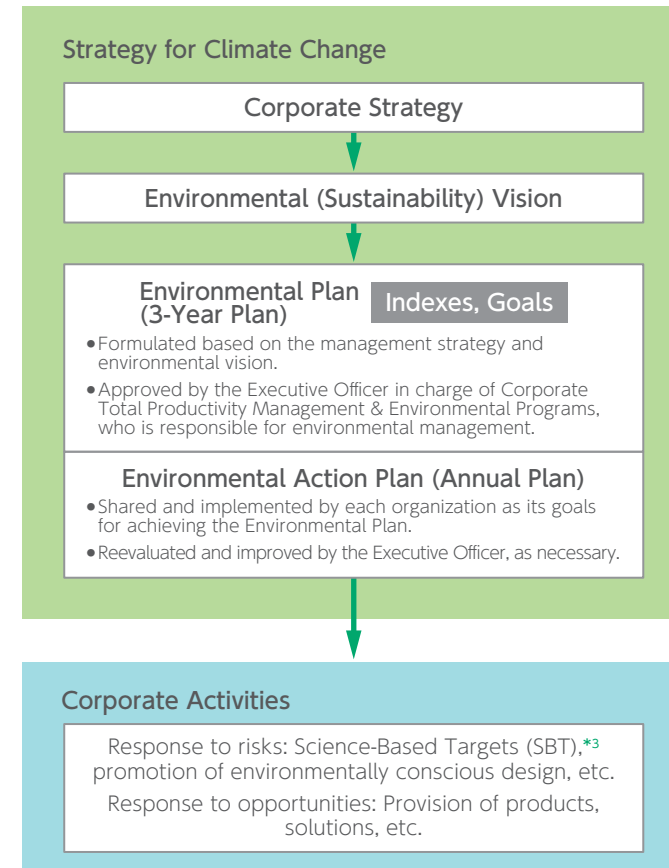
Strategy

The Mitsubishi Electric Group positions CSR as the foundation of corporate management based on its Purpose*1 and Our Values.*2 By doing so, the Group aims to become a company that is valued by its activities for resolving social issues, that is, an entity worthy of the trust and satisfaction of stakeholders that include society, customers, shareholders and employees.

Our management strategy is to “provide integrated solutions to address diversifying social challenges in the four fields of Life, Industry, Infrastructure and Mobility, uniting all the capabilities in and outside the Group. For this purpose, we will enhance the business foundation we have fostered over the past 100 years and further transform our business models.” The Mitsubishi Electric Group will pursue value creation for addressing social challenges that come from climate change, and contribute to achieving the 17 worldwide goals of the SDGs through all corporate activities by seeking sustainable growth. Furthermore, Environmental Sustainability Vision 2050 was established in 2019, and positions environmental contribution an even greater corporate priority and stipulates its initiatives in solving environmental issues.

The Group formulates a three-year Environmental Plan as an integral goal based on the corporate strategy and environmental vision for initiatives toward environmental issues including climate change. The plan sets out quantitative targets to be achieved, and the Executive Officer in charge of Corporate Total Productivity Management & Environmental Programs, who is responsible for environmental management, formulates the plan and shares it with each group organization. Each organization implements its own Environmental Action Plan (annual plan) based on the Environmental Plan.

The results of business execution are reviewed by the Executive Officer in charge of Corporate Total Productivity Management & Environmental Programs, and each organization reviews the Environmental Plan (three-year plan) and its Environmental Action Plan (annual plan) as necessary.



*1 The Mitsubishi Electric Group’s Purpose is to contribute to the realization of a vibrant and sustainable society through continuous technological innovation and ceaseless creativity.

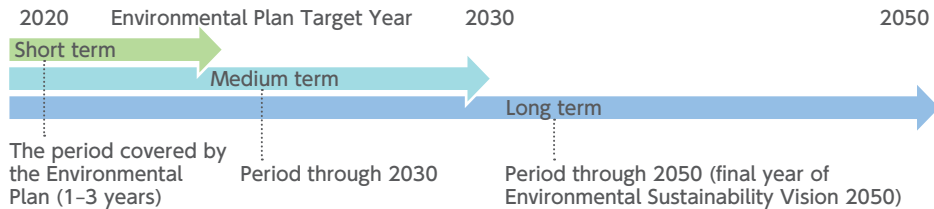
*2 Trust: We develop relationships based on strong mutual trust with all stakeholders including society, customers, shareholders, suppliers, and employees working together.
 Quality: We ensure the satisfaction of society and customers by providing products and services of the best quality.
 Technology: We provide society with new value by enhancing technology and onsite capabilities.
 Ethics and Compliance: We act with high ethical standards and comply with laws and social norms.
 Humanity: We prioritize health and safety, promote diversity, and respect personalities and human rights.
 Environment: We strive to protect and improve the global environment, doing so in harmony with nature.
 Society: We contribute to the development of a better society as a corporate citizen.

*3 Science-Based Targets: Targets to reduce greenhouse gas (GHG) emissions in line with the latest climate science necessary to meet the goals of the Paris Agreement.

Overview of Risk and Opportunity Assessment through Scenario Analysis

Through scenario analysis, we assess the corporate activities of the Group in terms of risks and opportunities.

The assessment is made based on two scenarios: a scenario to keep the increase in the global average temperature to below 2°C above pre-industrial levels (2°C scenario*1) and a scenario in case the temperature rises nearly 4°C as a result of continuing the conventional global warming countermeasures (4°C scenario*2). The period covered by the scenario analysis is up to 2050, and the periods are classified as shown below.



*1 Applied the IEA 450 scenario, etc. *2 Applied the IPCC RCP 8.5 scenario, etc.

Climate-Related Risks and Responses by the Mitsubishi Electric Group

Climate-related risks can be broadly divided into risks associated with the transition to a decarbonized society (hereinafter referred to as "transition risks") and risks associated with the physical impacts of global warming (hereinafter referred to as "physical risks"). These risks can result in increased expenses (for production, internal administration, financing, etc.), decreased revenues, and lower stock prices.

If the 2°C scenario progresses, social demand for reducing greenhouse gas emissions is expected to grow, raw material costs are expected to rise due to changes in the energy demand and supply balance, and the amount of generated power by renewable energy sources is expected to increase, in the transition to a decarbonized society. As a result of efforts to realize such a society, the likelihood of transition risks arising from the tightening of laws and regulations on greenhouse gas emissions and an increase in the burden of technological development will be relatively high (compared to physical risks).

If the 4°C scenario progresses, there is expected to be a significant increase in the frequency and severity of heavy rains and floods and a chronic rise in temperature. Physical risks such as the suspension of operations and disruption of the supply chain due to disaster will be relatively high (compared to transition risks).

In response to these risks, the Mitsubishi Electric Group implements initiatives as shown in following table.

Examples of Climate-Related Risks and Responses by the Mitsubishi Electric Group

Risks	Examples of the Group's Initiatives
Transition Risks	
Policy and Legal Risks (Short to Long-Term) <ul style="list-style-type: none"> • Increase in carbon pricing • Strengthened obligation of emission reports • Orders and regulations for existing products and services by relevant authorities • Litigation 	<ul style="list-style-type: none"> • Reduction of GHG*3 emissions through promotion of environmental plans and setting and taking initiative on science based targets, • Promotion of environmentally conscious design (global warming, resource conservation, recyclability, hazardous substances, packaging) • Capital investment related to environmental activities, including energy saving and global warming countermeasures • Implementation of supply chain management (formulation and implementation of green procurement standards) • Reporting of Scope 1, 2 and 3 emissions and implementation of third-party certification • Acquisition and maintenance of ISO 14001 certification • Confirmation of legal compliance through environmental audits • Disclosure of initiatives related to climate change and other environmental issues
Technology Risks (Medium to Long-Term) <ul style="list-style-type: none"> • Replacement of existing products and services with low-emission alternatives • Failed investment in new technologies • Cost of transition to low-emission technologies 	<ul style="list-style-type: none"> • Development of new technologies through R&D investment • Implementation of intellectual property activities • Mobile capital investment mainly in growth driving businesses • Capital investment related to environmental activities, including energy saving and global warming countermeasures
Market Risks (Medium to Long-Term) <ul style="list-style-type: none"> • Changes in customer behavior • Uncertainty in market signals • Rise in raw material costs 	<ul style="list-style-type: none"> • Promotion of environmentally conscious design • Capital investment related to environmental activities, including energy saving and global warming countermeasures • Market research and feedback on product development
Reputation Risks (Medium to Long-Term) <ul style="list-style-type: none"> • Changes in consumer preferences • Criticisms of the industrial sector • Increased concerns among stakeholders, or negative feedback from them 	<ul style="list-style-type: none"> • Reduction of GHG emissions through promotion of environmental plans and setting and taking initiative on science based targets, Capital investment related to environmental activities, including energy saving and global warming countermeasures • Promotion of environmentally conscious design • Response to environmental risk management • Implementation of natural environment conservation activities, including the protection of local biodiversity • Disclosure of initiatives related to climate change and other environmental issues
Physical Risks	
Acute Risks (Short to Long-Term) Increased severity of extreme weather such as heavy rains and floods	<ul style="list-style-type: none"> • Formulation and periodic review of BCPs*4 • Implementation of supply chain management (formulation and implementation of green procurement standards, decentralization of production sites by purchasing from multiple companies, etc.)
Chronic Risks (Medium to Long-Term) Changes in precipitation patterns and extreme variations in weather patterns	<ul style="list-style-type: none"> • A certain amount of investment every year in environmental activities, including initiatives against climate change • Reduction of GHG emissions through promotion of environmental plans and setting and taking initiative on science based targets

*3 Greenhouse gas *4 Business continuity plan

For example, even if laws and regulations strengthen the curtailment of greenhouse gases under the 2°C scenario, the Group can mitigate the impacts of such a regulatory move, as it is already working to reduce its emissions through promotion of an Environmental Plan and setting and taking initiative on science based targets. Similarly, the impact of rising raw material costs can be mitigated by further promoting environmentally conscious design that is already being implemented toward addressing global warming, resources conservation, and improved recyclability. We also invest in facilities for environmental activities, including energy saving and other measures to combat global warming, and in the research and development of new technologies in a well-balanced manner from the short, medium, and long term perspectives.

Against physical risks such as flooding under the 4°C scenario, we have formulated a BCP (business continuity plan) and review it once a year while moving ahead with the decentralization of production sites. We are also taking steps to prevent production problems in the supply chain, such as by purchasing from multiple companies and having our suppliers operate multiple production plants.

Climate-Related Opportunities and Initiatives by the Mitsubishi Electric Group

As the 2°C or 4°C scenario progresses, social issues arising from climate change are expected to become more apparent.

For example, if the 2°C scenario progresses, an increase in power generation by renewable energy is projected. The Mitsubishi Electric Group is capable of contributing to addressing needs for effective use of electricity and system stabilization that stem from such expansion of renewable energy and the decentralization of power sources, by providing large energy storage systems, smart medium- and low-voltage direct current distribution network systems, and distributed power source operation systems / virtual power plant (VPP) systems.

If the 4°C scenario progresses, frequent heavy rain and floods are expected. Using observation satellites, the Group is able to enhance the monitoring of meteorological phenomena and the global environment, assess disaster situations, and contribute to disaster prevention.

As shown in the following table, the Mitsubishi Electric Group has a wide range of businesses. Our strength is our ability to provide a wide range of products, services, and solutions that contribute to solving social issues arising from climate change. Through our solutions to these social issues, we believe we have the opportunity for short to long term sustainable growth.

Please refer to the section on “Initiatives that Contribute to Addressing Social Issues” in the “Mitsubishi Electric Group CSR Report” for details on the activities of each business.

Examples of Climate-Related Opportunities and Initiatives by the Mitsubishi Electric Group

Social Issues (Opportunities)	Examples of the Group's Initiatives
Resource Efficiency	
<ul style="list-style-type: none"> • Use of more efficient modes of transport (modal shift) • Use of more efficient and resource-saving production and distribution processes • Promotion of recycling • Relocation to a more efficient building • Reduction in water usage and consumption 	<ul style="list-style-type: none"> • Development of products suitable for resource conservation, such as thinner materials and smaller tubes • Promotion of plastic recycling • Energy conservation and reduction of operation costs for buildings as a whole through ZEB (net Zero Energy Building), etc. • Development of coordinated control technology for in-building mobility and facilities • Provision of systems for water distribution management, water storage and discharge through dam management, and water intake management for agricultural water • Promotion of reclaimed water use by ozonizers • Strengthening of products and solutions that support e-F@ctory*1 • Promotion of a modal shift through the transportation systems business • Development of products and technologies that contribute to autonomous driving • Localization of production and sales bases
Energy Source	
<ul style="list-style-type: none"> • Use of lower-emission energy sources • Use of new technologies • Shift toward decentralized energy generation 	<ul style="list-style-type: none"> • Effective use of electricity and response to needs for system stabilization accompanying the expansion of renewable energy and decentralization of power sources <ul style="list-style-type: none"> - Large energy storage systems - Smart medium voltage DC distribution network system D-SMiree*2 - Distributed power supply system/VPP system
Products and Services	
<ul style="list-style-type: none"> • Development and/or expansion of low emission goods and services • Development of new products or services through R&D and innovation • Ability to diversify business activities • Shift in consumer preferences 	<ul style="list-style-type: none"> • Development of energy-saving products optimized for local climate conditions and needs • Development of innovative new products such as the Misola,*3 a lighting fixture that creates the illusion of a deep blue sky and natural light in indoor spaces. • Improvement of the energy efficiency of railway vehicles and effective utilization of regenerative electric power from braking • Demonstration of ZEB-related technologies, including the construction of demonstration facilities • Development of the EcoMBR*4 filtration membrane cleaning system for water treatment • Provision of smart meters • Development and supply of energy conservation equipment that facilitates the measurement of energy consumption and the collection and analysis of energy consumption data • Global supply of high-efficiency equipment, including electric power train systems • Development and supply of low-loss SiC devices • Establishment of the Business Innovation Group • Localization of production and sales sites • Balanced promotion of short-, medium- and long-term research and development
Resilience	
<ul style="list-style-type: none"> • Participation in renewable energy programs and adoption of energy efficiency measures • Resource substitutes/diversification 	<ul style="list-style-type: none"> • Effective use of electricity and response to needs for system stabilization accompanying the expansion of renewable energy and decentralization of power sources • Contribution to preventing global warming by using observation satellites, strengthening the monitoring of meteorological phenomena and the global environment, understanding of disaster situations, and promoting disaster prevention • Meteorological radar system • Field Edge® image-based water level measurement device • Provision of BCP solutions, such as data centers, teleworking, and video conferencing services

*1 <https://www.MitsubishiElectric.com/fa/sols/index.html>

*2 https://www.MitsubishiElectric.com/en/sustainability/csr/management/social_contributions/energy/index.html

*3 <https://www.MitsubishiElectric.co.jp/ldg/ja/lighting/products/fixture/misola/index.html> (in Japanese)

*4 <https://www.MitsubishiElectric.com/en/about/rd/research/highlights/energy/mbr.html>

As a result of this assessment of climate-related risks and opportunities and our initiatives toward them, the Mitsubishi Electric Group can be said to have resilience against such risks under both the 2°C and the 4°C scenarios and the opportunity for sustainable growth through the solving of social issues arising from climate change.*1

*1 This conclusion is based on the scenario, and the future outlook may differ.

Management System Governance System

As a company with functions such as a Nomination Committee, etc., we aim to achieve sustainable growth by improving management agility and transparency and strengthening management oversight functions. Our basic policy is to build and improve a system that can accurately meet the expectations of stakeholders, including society, customers, shareholders, and employees, and further enhance our corporate value.

A salient characteristic of Mitsubishi Electric’s management structure is that the roles of the Chairman of the Board, who heads the supervisory function, and the President & CEO, who is the head of all executive officers, are clearly separated. Additionally, neither is included among the members of the Nomination and Compensation Committee. Our company’s corporate governance is made more effective by clearly separating the supervisory and executive functions.

The Board of Directors is comprised of twelve members, including five outside directors (one is a woman). The members execute their duties based on the objectives and authority specified by the Companies Act. At the same time, the executive officers are delegated the authority to make decisions on all business operations, except for matters listed in the items of Article 416, Paragraphs 1 and 4 of the Companies Act, to provide advice to and supervise Mitsubishi Electric’s management from an objective perspective.

The executive officers, including the officer in charge of production systems, who are responsible for promoting environmental management, are delegated by the Board of Directors to make decisions and execute business operations within the scope of their responsibilities in accordance with the objective and authority stipulated in the Companies Act. The Executive Officers’ Meeting, comprised of all executive officers, deliberates and makes decisions on important matters.

The compensation scheme for executive officers places importance on the realization of management policies and incentives to improve performance, and pays out a fixed amount of compensation and retirement benefits upon their resignation, in addition to a performance-linked compensation. The basic policy specifies that the compensation is to “increase awareness of contributing to improving business performance over the medium to long-term and increasing corporate value.”

Identifying, Evaluating, and Managing Risks and Opportunities and Incorporating Them into Business Activities

The Environmental Management System (EMS) is integrally operated by the Mitsubishi Electric Group as a whole, with all organizations within the Group (business groups, head office management divisions, Corporate Human Resources Division, factories, and affiliated companies) working to achieve the Group’s three-year environmental plan as a common goal. Each

organization identifies and assesses risks and opportunities related to its environment, including climate-related risks, and reflects them in its own EMP (Environmental Management Plan).

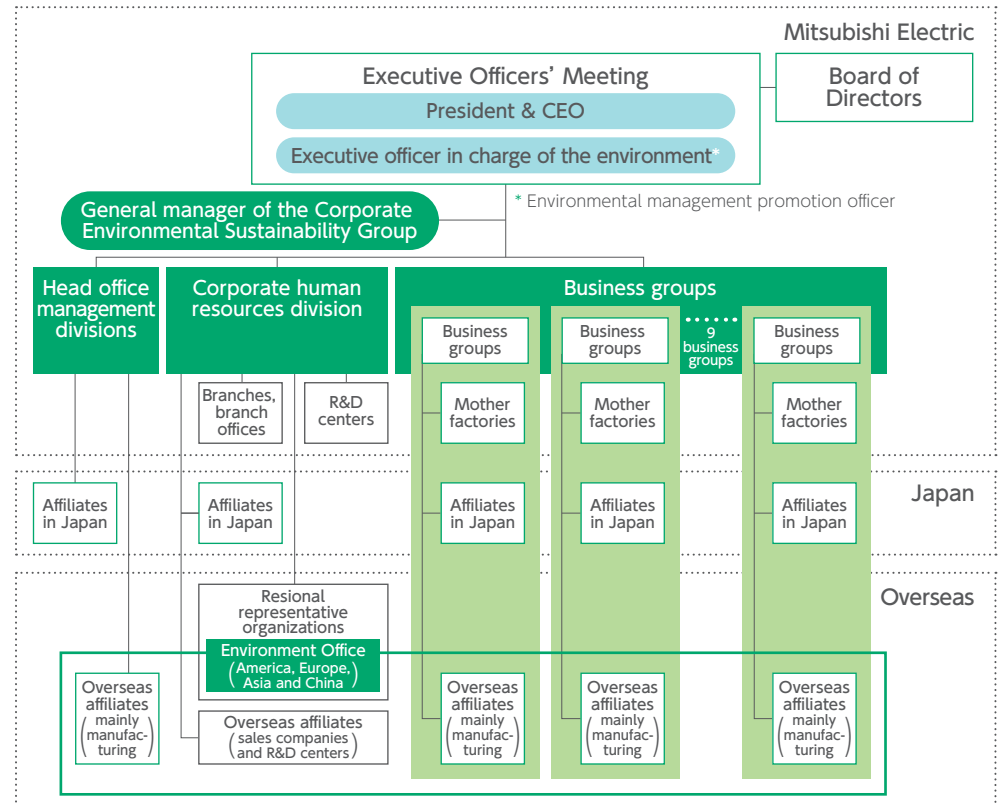
Business groups, head office management divisions, and the Corporate Human Resources Division direct and manage the activities of their organizations, their branch offices, factories, and affiliated companies based on the EMP.

Each organization has an Environmental Promotion Manager who manages and supervises the EMP, its performance, and environmental performance within the scope of his/her management and supervision.

The Environment Office, as a regional organization in the regional representative organization for the Americas, Europe, Asia, and China, supports the development of Group-wide measures and the activities of all affiliated companies in the region under its management.

The progress of the EMP in each division is reported to the Corporate Environmental Sustainability Group, which identifies and assesses company-wide risks and opportunities based on the reports and reviews the Environmental Plan and EMPs as necessary.

Environmental Governance and Risk Management System



Climate Change Indicators and Goals

The Mitsubishi Electric Group's Environmental Plan

The Mitsubishi Electric Group has formulated an Environmental Plan every three years since 1993, setting specific action targets. The current 9th Environmental Plan (fiscal year 2019 to 2021 (1st April 2018 through 31st March 2021)) sets forth indexes and targets for reduction of CO₂ emissions from production, reduction of CO₂ emissions from product usage, effective utilization of resources, effective use of water, continuation of the “Mitsubishi Electric Outdoor Classroom” and “Satoyama Woodland Preservation Project,” and biodiversity conservation at business sites, in line with the goals of “Creating a Low-Carbon Society,” “Creating a Recycling-Based Society” and “Ensuring Harmony with Nature” that are specified in Environmental Vision 2021.

→For more information, see “Overview of Environmental Consideration and Progress of the 9th Environmental Plan” on page 17.

Calculating and Identifying Greenhouse Gas Emissions along the Value Chain

The Mitsubishi Electric Group calculates and tracks greenhouse gas emissions (Scope 1, Scope 2 and Scope 3) in its value chain. For calculation and assessment, we refer to the GHG Protocol and the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain published by Japan’s Ministry of the Environment.

→For more information on greenhouse gas emissions in the value chain, see “Reducing Greenhouse Gases Emitted in the Value Chain” on page 41.

Science Based Targets

The Mitsubishi Electric Group has set the following greenhouse gas reduction targets and has been approved by the Science Based Targets initiative in January 2020.

- Scope 1 and Scope 2: Mitsubishi Electric commits to reduce total Scopes 1 and 2 GHG emissions by 18% by 2030, compared to the base year of fiscal 2017.
- Scope 3,*1,*2: Mitsubishi Electric commits to reduce total Scope 3 GHG emissions by 15% by 2030, compared to the base year of fiscal 2019.

*1 The scope of third-party certification in Scope 3 includes Category 1 (purchased goods and services), Category 6 (business travel), Category 7 (employee commuting), and Category 11 (use of sold products).

*2 Scope 3 covers Category 11 (use of sold products).

We will continue to disclose our progress of the targets.

Implementation of Third-Party Certification

The Mitsubishi Electric Group has set targets for its greenhouse gas emissions (Scopes 1, 2 and 3) and amount of water used and discharged. They have been certified by a third party in compliance with ISO 14064-3 to ensure reliability of the data.

→For details, please refer to the Verification Statement.

https://www.MitsubishiElectric.co.jp/corporate/environment/disclosure/tpv/pdf/tpv_2020_e.pdf

The Structure of Our Environmental Management System

Scope

Mitsubishi Electric considers environmental management an essential component of corporate governance, and includes the Company and major affiliates within the scope of management.

Major Affiliates

- Consolidated companies: Companies with 50% or more of (voting) shares owned by Mitsubishi Electric and directly managed by Mitsubishi Electric.
- Non-consolidated companies: Companies judged to require integrated environmental management by Mitsubishi Electric.

ISO Certification

Mitsubishi Electric Corporation and its Japanese and overseas affiliated companies included in the scope of this report are pushing forward with environmental management based on ISO 14001 standards. Mitsubishi Electric has previously obtained ISO certification by business site, such as the “districts” and “works” that constitute the company. However, since fiscal 2018, we have switched our approach to acquiring collective certification of company-wide sites. This change constitutes part of our attempt to strengthen compliance by the company as a whole and to further strengthen our contribution to the environment through business operations based on our environmental plans.

Please refer to “ISO 14001 Certificate of Registration/Appendix” for details of sites included in the company-wide certification.

* Mitsubishi Electric’s Plant Engineering & Construction Division has individually received ISO 14001 certification.

ISO 14001 Certificate of Registration/Appendix

https://www.MitsubishiElectric.co.jp/corporate/environment/disclosure/iso/certificate_en/index.html

Environmental Audits

Three Types of Environmental Audits

The Mitsubishi Electric Group combines three types of audits to verify the environmental activities of each site from a multifaceted approach. The first type is environmental audits conducted by the head office at works, R&D centers and affiliated companies. The second is external audits conducted by ISO certification bodies at ISO 14001-certified sites. The third is internal environmental audits conducted by the head office, works, R&D centers and affiliated companies themselves.

From within these three types, the internal environmental audits and environmental audits target a wide range of fields, including compliance with environmental laws, precautions against environmental accidents such as toxic substance leakages, and the implementation of environmental plans. Accordingly, properly conducted audits call for a high level of specialized knowledge and communication abilities. As such, we carry out ongoing education for the purpose of training and improving the skills of auditors. For internal auditing, we conduct cross-audits among sites and offer audit training courses through internal technical education to ensure appropriate auditing skills. Through these initiatives, Mitsubishi Electric will continue to work to qualitatively improve and enhance environmental management activities throughout the Group.

Overview of the Three Types of Environmental Audits

	Internal Environmental Audits	Environmental Audits	External Audits
Implementing Body	Branches, works, R&D centers, affiliated companies	Head office	ISO certification bodies
Auditing Standards	<ul style="list-style-type: none"> • Laws and regulations • ISO standards • Site-specific regulations • Environmental Plan 	<ul style="list-style-type: none"> • Laws and regulations • Company regulations related to the environment • Environmental Plan 	ISO standards
Frequency	Once a year	Once every two to three years	Once a year

Sharing Information through Meetings

Within the Mitsubishi Electric Group, in addition to the technology committees for different issues and meetings held by the people in charge of each organization, general meetings are held and attended by all people responsible for promoting the environmental practices for each division in Japan and overseas. The aims of such meetings include confirming key issues and unifying the approaches to these that the various divisions take, as well as sharing useful information such as “favorable case examples” of each other’s practices and “matters to watch out for” on a regular and continuous basis. Such meetings are useful for improving overall management levels.

Japan

As part of the Mitsubishi Electric Group’s general practices, company-wide meetings are held once a year, attended by the people responsible for promoting environmental practices at all bases and from all domestic affiliated companies. In addition to policies advised by the Executive Officer and reports on progress made regarding each division’s practices, information is shared among those who attend. Additionally, within each business division, the people responsible for promoting environmental practices and those responsible for applying the practices in affiliated companies both in Japan and overseas hold meetings to confirm the implementation and progress of measures that conform with their business activities, share information and discuss improvement measures.

Overseas

As part of the Mitsubishi Electric Group’s general practices, annual overseas regional environmental meetings are held in each of the four regions: Americas, Europe, China and Asia. These meetings are hosted by the Corporate Environmental Sustainability Group and are attended by the people responsible for promoting environmental practices at each overseas affiliated company in the area to confirm the implementation and progress of various measures. Such supervision by corporate headquarters aims not only to improve the level of environmental management at overseas business sites, but to also strengthen ties between Japan and the overseas sites, as well as among affiliated companies overseas.

Training of Environmental Personnel

Developing Personnel to Proactively Engage in Environmental Activities

We are working to develop personnel who think for themselves what is required for the environment and act on it. Based on this, we will continue our environmental activities in the years to come as we work to achieve Environmental Vision 2021 and our environmental plans.

In the area of environmental training, we have implemented various educational programs in two categories: general education and specialized education. The goal of these programs is to permeate the knowledge and skills required to create a low-carbon, recycling-based society, respect biodiversity, and conduct the environmental management activities that form the pillars of Environmental Vision 2021.

Environmental Education System

Target	Lecture Name
Managerial Staff	<ul style="list-style-type: none"> • Environmental Promotion Chief Administrator Training • Environmental Section Manager Training • New Environmental Section Manager Training
Employees Involved in Environmental Business	<ul style="list-style-type: none"> • MELCO Seminar Environmental Courses <ul style="list-style-type: none"> · Waste Management · Design for the Environment · Energy Saving Law · Biodiversity · Chemical Substances Management • Key Environmental Personnel Liaison Meetings • Environmental Basic Guidance • Training Internal Auditors • Environmental Audits • ISO 14001 • Environmental Regulations
General Employees	<ul style="list-style-type: none"> • Environmental Course for Employees Dispatched Overseas • e-Learning for All Employees, Mitsubishi Electric Group Environmental Management • Environmental Training Course by Age Group • Common Basic Training for New Employees • Activities to Foster Environmental Awareness <ul style="list-style-type: none"> · Preserving Biodiversity at Business Sites · Satoyama Woodland Preservation Project · Mitsubishi Electric Outdoor Classroom • Outdoor Classroom Leader Development/Regional Block Leader Meetings

Holding Environmental Basic Guidance / Liaison Meetings

In Japan, the Mitsubishi Electric Group provides Environmental Basic Guidance and holds Liaison Meetings for key environmental personnel. Environmental Basic Guidance is intended for those who have been in charge of environmental administration for one to three years. It is designed to educate participants about environmental management, waste management, chemicals control, energy savings, and risk communications. Key Environmental Personnel Liaison Meetings are intended for those who have completed the above-mentioned program, to provide the latest case examples regarding environmental management, waste management, and energy conservation. In these meetings, participants also engage in group discussions so that individual case studies can be adapted and applied to their own workplaces.

In fiscal 2020, Environmental Basic Guidance was implemented at four business bases (Fukuyama Works, Nakatsugawa Works, Shizuoka Works, and the Head Office), and Key Environmental Personnel Liaison Meetings were held at three business sites (Energy Systems Center, Kansai Branch Office, and the Head Office).



Environmental Basic Guidance: Lectures



Key Environmental Personnel Liaison Meeting: Group presentation

Developing Nature Protection Leaders

In fields adjacent to business sites, Mitsubishi Electric Outdoor Classrooms are held, providing an opportunity for both participants and the employees who play the role of leaders to experience nature. This directive aims to promote awareness towards coexistence with nature and develop the ability to act for improving the environment. Volunteer employees are trained as leaders in planning and executing the program. Through the Outdoor Classroom Leader Development Course, which is an employee training program, they learn about relationships between living creatures, safety management, child psychology, and communication skills through one-and-a-half days of classroom lectures and field training. They then use what they have learned in the course to actually plan and run an outdoor classroom as a wrap-up of the course. Between fiscal 2007 and 2020, this development course was held 22 times, producing 432 leaders.

Preventing Environmental Incidents

Preventing Environmental Incidents through Information-Sharing and Equipment Inspections

Both within Japan and overseas, the Mitsubishi Electric Group strives to prevent environmental incidents, such as the leakage of substances that may result in water or soil pollution or have a negative impact upon the environment.

To achieve this, Mitsubishi Electric ensures that its entire workforce is fully familiar with the relevant laws and regulations, revises company rules to reflect any updates to such laws and regulations, and ensures these updates are made known throughout the Group. In the case of a problem (e.g., minor oversight) occurring, Mitsubishi Electric shares the cause and countermeasures throughout the entire Group to prevent it from reoccurring. Aiming to increase the awareness of environmental risk management, the Mitsubishi Electric Group's offices and factories across Japan take measures such as watching internal training DVDs that introduce examples of problems and the establishment and renewal of important laws, thereby firmly instilling environmental management issues across a wider range of occupational levels. In addition, periodic facilities inspections are carried out at all Group bases, the results of which are compiled into necessary measures from time to time and utilized.

Environmental audits are also conducted at major affiliated companies overseas in an effort to uncover and prevent environmental risks.

Responding to Soil and Groundwater Pollution

As stated in our internal rules, the Mitsubishi Electric Group's business sites (works, laboratories, etc.) conduct environmental assessments such as when there is a change in land characteristics. These assessments are based on a survey method that complies with relevant laws and regulations, and the necessary countermeasures or solutions are implemented in accordance with the state of pollution.

In fiscal 2020, we assessed survey results and countermeasures regarding the condition of soil and groundwater due to land utilization for a total of 11 cases (Mitsubishi Electric: eight cases, affiliated companies overseas: three cases) and have confirmed that all cases were handled appropriately.

Regarding areas that were recognized as having groundwater or soil pollution problems in the past, we implemented purification measures using method compliant with laws and regulations, and continue to regularly report the results of our monitoring to relevant government organizations.

Appropriate Storage and Processing of PCB Waste and Devices Containing PCBs

Mitsubishi Electric conducts inspections at all bases that store PCB waste and/or handle devices containing PCBs at least once a year to confirm the status of PCB storage and usage.

With respect to high-concentration PCBs, we entered into a contract with the Japan Environmental Storage & Safety Corporation (JESCO) to promote the systematic processing of PCB waste. In fiscal 2020, 45 devices and 11.5 tons of contaminants were processed. This systematic processing of PCB waste is also promoted by our affiliates in Japan.

Customers can confirm whether or not an electrical device manufactured by a Mitsubishi Electric Group company contains PCB by referring to a list available on the corporate website.

Environmental Plan and Environmental Implementation Plan

The Mitsubishi Electric Group formulates an environmental plan every three years, comprised of measures and targets for realizing the Environmental Vision.

To achieve the targets of this environmental plan, each management organization formulates and acts on a yearly environmental implementation plan.



(1) Formulation of a Fiscal Year Plan-(2) Formulation of an Environmental Implementation Plan

Based on environmental plans, objectives and action plans are determined for that fiscal year.

(3) Company-Wide Environmental Managers' Meeting

A meeting is held that is attended by all people who are responsible for promoting environmental practices. Information such as focus issues and policies is shared and confirmed.

(4) Confirmation of Progress and Achievements

The Corporate Environmental Sustainability Group compiles environmental performance data and other relevant information, and reports them to the Executive Officer every six months. When necessary (e.g., any significant change in the business environment related to the Group), the Executive Officer carries out reviews and reconsiders plans.

(5) Reporting of Annual Environmental Results

The Corporate Environmental Sustainability Group compiles environmental performance data and other relevant information for the fiscal year to report to the Executive Officer.

(6) Management Review

The Executive Officer carries out the review of activity results and reconsiders environmental plans and/or the environmental implementation plan for the next fiscal year if necessary.

Our activity level is enhanced through the “formulation,” “implementation,” “verification of results,” and “review” of the plans throughout the fiscal year. In addition to this, audits and inspections on an “as needed” basis ensure that appropriate activities are carried out.

Evaluation of the Importance of Environmental Issues in Business

As well as reducing the environmental impact of our business activities, we are working on solutions to the environmental issues faced by society while responding to our customers' needs. In order to determine which environmental issues should be prioritized when reducing the environmental impact of our business activities, each of our ten business groups (the organizational unit for environmental management) has evaluated the level of importance of the main environmental issues, from the perspectives of the likelihood that a risk or opportunity will arise in our business and the magnitude of its impact, based on the respective value criteria. Going forward, the Mitsubishi Electric Group will continue to perform these evaluations, assign priority according to the level of importance, and promote the strengthening of countermeasures against environmental risks and the expansion of business opportunities.

Risk and Opportunity Importance Evaluation Chart

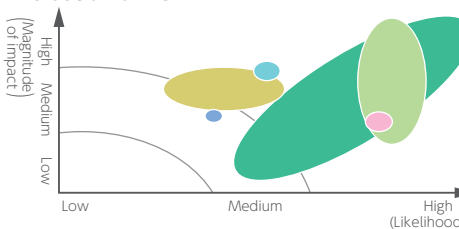
The chart below shows the results of our evaluation. The horizontal axis indicates the likelihood of occurrence of a risk or opportunity, and the vertical axis indicates the magnitude of the impact of the risk or opportunity. Among the eight environmental issues (areas) identified by our business groups, each business group selected up to four issues to address with particular priority, and the weighted averages of their levels of importance evaluated by score, were plotted. The size of the colored ranges shows how many business groups evaluated each environmental issue, and the shape indicates variation. In both the risk and opportunity charts, the top right-hand corner indicates the highest importance.

Looking at the trend of the colored ranges on the chart, in terms of both risk and opportunity, it can be seen that the most important environmental issue for the Mitsubishi Electric Group is climate change.

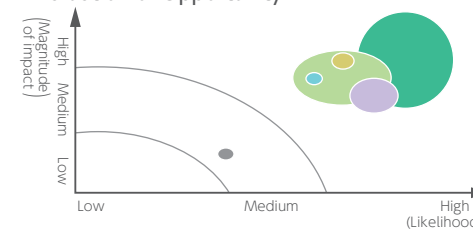
The proper management of chemical substances, which relates to chemical substance regulations that are becoming stricter worldwide, and the depletion of mineral resources, which is related to the use of rare metals and rare-earth elements, are also extremely important environmental issues. In this manner, we conduct our activities with an awareness of the risks and opportunities regarding environmental issues that are closely related to each part of our business.

Importance Evaluation Risk

Evaluation of Risk



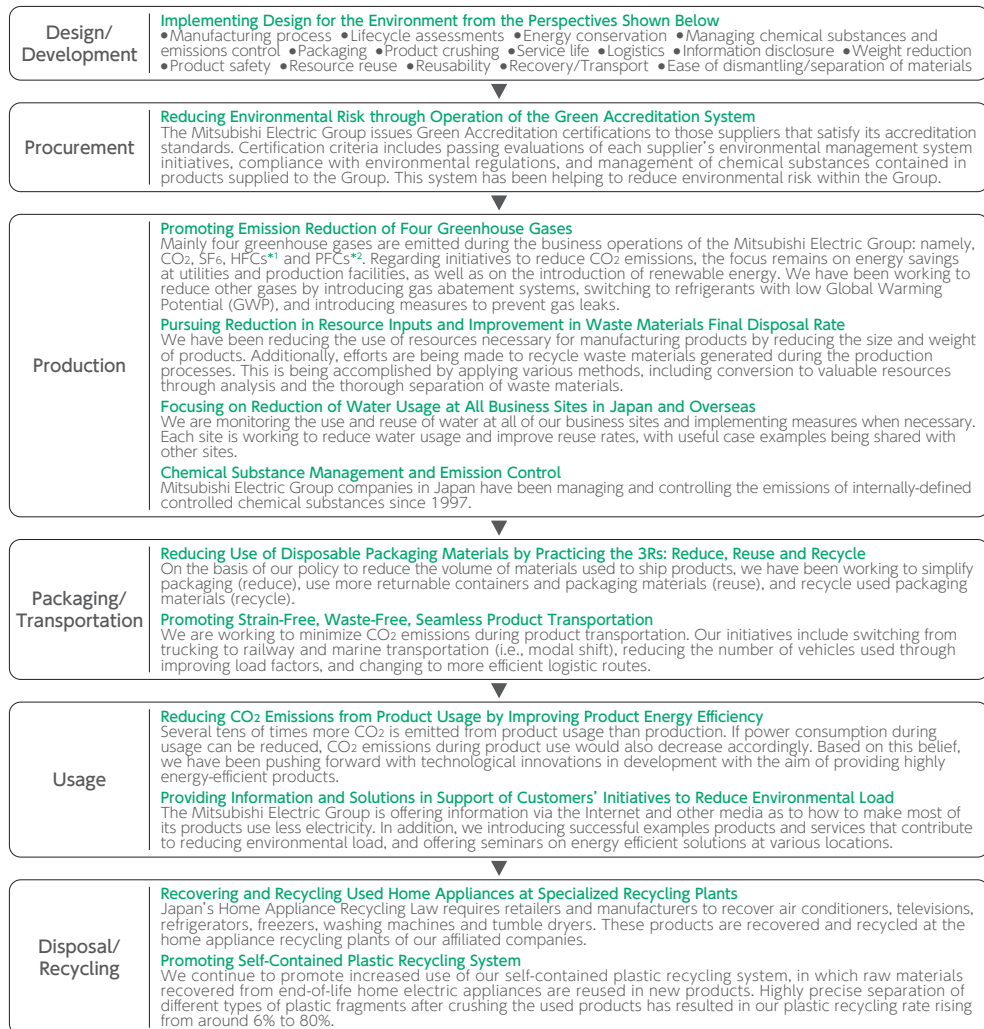
Evaluation of Opportunity



- Response to Environmental Issue
- Climate change
 - Air, water, and soil pollution
 - Deforestation
 - Waste reduction and management
 - Proper management of chemical substance
 - Appropriate use of water
 - Depletion of mineral resources
 - Conservation of biodiversity

Overview of Environmental Consideration and Progress of the 9th Environmental Plan

The Mitsubishi Electric Group promotes various measures that are connected to the realization of a sustainable society in each process of the value chain, from procurement, manufacturing and packaging/transportation to use and disposal/recycling.



Note: We act in consideration of ensuring coexistence with nature and biodiversity preservation in all stages of the value chain.

*1 Hydrofluorocarbon *2 Perfluorocarbon

In fiscal 2020, the middle year of the 9th Environmental Plan (fiscal 2019–2021), our results were consistently in line with our projections, and we consequently achieved all targets. Mitsubishi Electric set greenhouse gas reduction targets (science-based targets; SBTs) that are scientifically consistent with the long-term goals of the Paris Agreement. In January 2020, these targets were certified by the SBT Initiative. In fiscal 2021, we will formulate and promote action plans in line with our SBTs. At the same time, by further strengthening our initiatives throughout the value chain, we will aim to achieve our targets in all areas.

Target of 9th Environmental Plan (FY 2021)	Result		FY 2020 Self-Evaluation	
	FY 2019	FY 2020		
■ Initiatives through Products and Services				
Reducing Resource Inputs	Average reduction rate from 64 product groups (compared to FY 2001) 40% or more	42%*3	42%	○
Reducing CO₂ Emissions from Product Usage by Improving Product Performance	Average reduction rate (compared to FY 2001) 35% or more	36%	37%*4	○
Increasing Contribution to Reducing CO₂ Emissions from Product Usage	Contribute to reducing emissions from at least 127 product groups: 70 million tons or more	77 million tons	76 million tons	○
■ Initiatives at Business Sites				
Reducing CO₂ from Production	Annual emission of greenhouse gases (CO ₂ conversion) 1.47 million tons or less	1.29 million tons*3	1.24 million tons	○
Effective Utilization of Resources	•Mitsubishi Electric Group companies in Japan Final disposal rate: below 0.1%	0.01%	0.01%	○
	•Affiliates (Overseas) Final disposal rate: below 0.5%	0.5%	0.4%	○
Using Water Effectively	Reduction in water usage per unit of sales: 10% or more (improvement of 1% per annum compared to FY 2011)*5	23%	21%	○
Preserving Biodiversity at Business Sites	Number of business sites where activities are promoted: All business sites of Mitsubishi Electric	All 24 business sites	All 24 business sites	○
Continuous Holding of the "Mitsubishi Electric Outdoor Classroom" and "Satoyama" Woodland Preservation Project	Total participants since FY 2008: 51,000 people or more *6	43,738 people	47,808 people	○

*3 This figure has been altered in accordance with the new aggregation method.

*4 98 product groups in fiscal 2020

*5 The targets for fiscal 2019 and 2020 were 8% and 9%, respectively.

*6 The targets for fiscal 2019 and 2020 were 43,000 and 47,000 people, respectively.

Products/Services

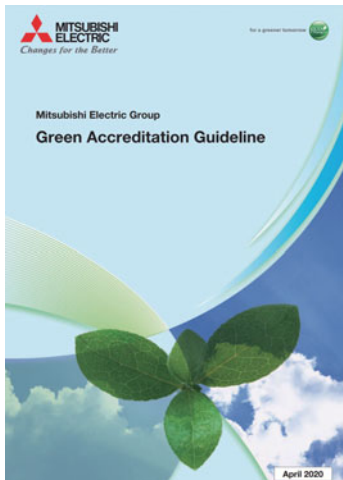
Environmental Considerations for Procurement

Green Accreditation System Introduced That Takes Biodiversity and Environmental Risk into Consideration

In April 2006, the Mitsubishi Electric Group introduced a Green Accreditation System based on the Green Procurement Standards Guide established in September 2000, and revised in July 2014. The Group is working to minimize environmental risks by evaluating the status of environmental management system accreditation acquired by suppliers, compliance with statutory and regulatory requirements, and management of chemical substances contained in products, while at the same time certifying suppliers that meet the Company's criteria and standards. When it comes to the status of chemical substance management, all evaluations are conducted taking into consideration aspects such as changes to regulations.

In fiscal 2011, Mitsubishi Electric added consideration for preserving biodiversity as an assessment criterion of the Green Accreditation System. We have also implemented a means of confirming whether or not our business partners have introduced initiatives to preserve biodiversity as well.

The overall Green Accreditation rate among Japanese and overseas suppliers of manufacturing materials essential to Mitsubishi Electric's manufacturing activities stands at 94% as of fiscal 2020 (in comparison with 90% in fiscal 2019). Guidance for improvement continues with the aim of achieving 100% in the future.



Reducing Resource Inputs

Targets of the 9th Environmental Plan (Fiscal 2019–2021) and Achievements in Fiscal 2020

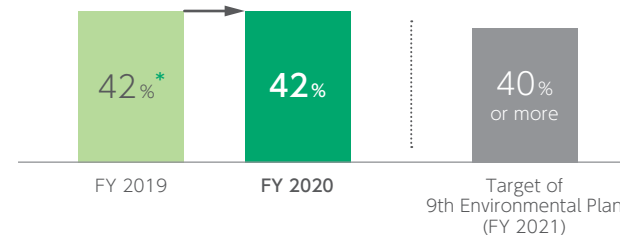
The Mitsubishi Electric Group is reducing resource inputs by reducing the size and weight of its products. Our aim under the 9th Environmental Plan (fiscal 2019–2021) is to reduce resource inputs for 64 product groups by an average of 40% compared to fiscal 2001, and this reduction target is built into our product development plans. Individual products that are not continuously manufactured and products built to customer specifications are outside the scope of resource input reduction.

Average reduction rates of resource inputs fluctuate according to business conditions, but in fiscal 2020, the average rate was 42%, so we have achieved the target.

Products Making Notable Progress in Resource Reduction in Fiscal 2020 (Compared to Fiscal 2019)

- Wide-area surveillance and control equipment: 8% reduction
- Power devices: 6% reduction
- Gas-insulated switchgear: 4% reduction
- Building security systems: 4% reduction

Average Reduction Rates of Resource Inputs for 64 Product Groups with Fiscal 2001 as Base Year (Mitsubishi Electric Group)



* This figure has been altered in accordance with the new aggregation method.

Contribution to Reducing CO₂ from Product Usage

As many tens of times more CO₂ is emitted during product usage than during production, the Mitsubishi Electric Group has designated Reducing CO₂ from Product Usage and Expansion of Contribution to Reducing CO₂ from Product Usage as priority issues, and is working to improve its products.

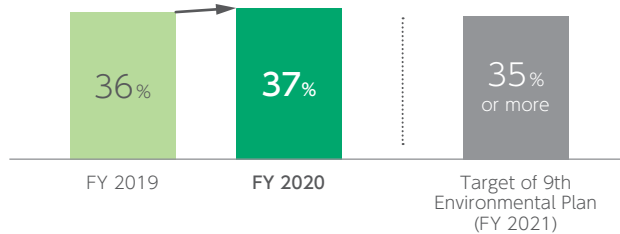
Targets of the 9th Environmental Plan (Fiscal 2019–2021) for Reducing CO₂ from Product Usage and Achievements in Fiscal 2020

Power consumed by customers during product use is viewed as corresponding to the amount of CO₂ emissions resulting from generating that power. Increasing product energy efficiency can reduce CO₂ from product use. Under the 9th Environmental Plan (fiscal 2019–2021), the Mitsubishi Electric Group’s goal is to achieve an average reduction rate of 35% compared to fiscal 2001 for CO₂ emissions from product usage.

In fiscal 2020, we improved the energy efficiency mainly of power devices and air conditioners, while promoting sales of power devices, hot-water supply system equipment and other products with high energy efficiency. As a result, the average reduction rate for 98 targeted product groups came to 37% compared to fiscal 2001, and we thus achieved the objective.

In January 2020, the Mitsubishi Electric Group’s targets of reducing greenhouse gases by 2030 were approved as science-based targets, certified by the Science Based Targets (SBT) Initiative. We will hereafter substantiate our roadmap for long-term reductions in greenhouse gas emissions and implement further measures.

Average Reduction Rates of CO₂ from Product Usage for 98 Product Groups with Fiscal 2001 as Base Year (Mitsubishi Electric Group)



Targets of the 9th Environmental Plan (Fiscal 2019–2021) for Expansion of Contribution to Reducing CO₂ and Achievements in Fiscal 2020

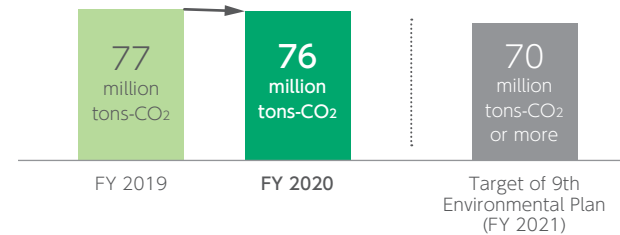
The Mitsubishi Electric Group is working to visualize and expand our Contribution to Reducing CO₂ from Product Usage. Contribution to reducing CO₂ is represented by the amount of generated CO₂ deemed saved by switching from older products to new, energy-efficient ones. The calculation is based on the following formula, which multiplies the effect of reducing CO₂ over the life of the product by the number of units sold.

$$\text{Contribution to reducing CO}_2 = \text{Effect of reducing CO}_2 \text{ from product usage per unit} \times \text{Number of units sold during the fiscal year}$$

We use official standards and industry-mandated calculation method when computing our contribution to reducing CO₂. Where no calculation method is specified, we make calculations based on our own product scenarios. Calculations for interim products are based on GHG Protocol Scope 3 Guidance, with proportional division by product weight and percentage of sales.

In fiscal 2020, stagnant demand for capital expenditure both in Japan and abroad, together with a decline in new car sales across the world, adversely affected business operations in the industrial mechatronics division. As a result, our contribution to reducing CO₂ was lower than the previous year. On the other hand, energy efficiency has been improved mainly in power devices and air conditioners, and sales of products with high energy efficiency, such as power devices and hot-water supply systems and equipment, were promoted. As a result, we contributed to reducing CO₂ from product usage by a total of 76 million tons, and thus achieved the target.

Contribution to Reducing CO₂ from Product Usage (Mitsubishi Electric Group)



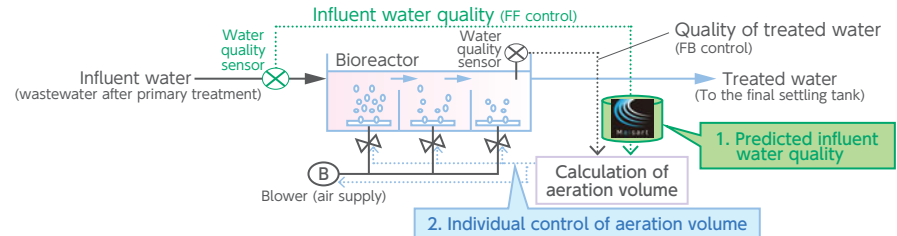
Breakdown of Products Included in the Calculation for Contribution to Reducing CO₂ from Product Usage

Products (Number of Product Groups)	Examples of Products	Standard/Benchmark Used for Calculation
End Products (82)	Plant monitoring control systems, railcar air-conditioning systems, onboard information systems (TIS, ATC, TIMS), monitor/protection control systems for power generation plants, circuit breakers, elevators, intelligent transport systems (ITS), satellite communications earth station facilities, optic/wireless access systems, air conditioners, televisions, refrigerators, heat exchange ventilation equipment, processing machines, robots, lighting fixtures / lamps, IH cooking heaters, etc.	Contribution from reducing power consumed by the product
	Energy-saving support equipment, elevator modernization, heat exchange ventilation equipment	Reduced power utilization through introduction of energy efficiency enhancing devices, contribution from upgrading to highly efficient components during refurbishment, previously wasted energy used by heat exchange
	Circuit breakers, switchgear	Reduction in leaked SF ₆ gas (CO ₂ equivalent)
	Photovoltaic power generators, turbine generators	Power produced minus energy used for power generation, increase in power generated by improving efficiency
Interim Products (32)	Compressors purchased separately from air conditioners	Contribution from incorporation of products with lower power consumption
	Inverters, motors	Contribution from incorporation of products with lower power loss
	Power devices	Contribution from incorporation of products with greater fuel efficiency, proportionally divided by weight
	Electric power steering, alternators, starters	Contribution from incorporation of products with greater fuel efficiency, proportionally divided by weight
	Combined-cycle thermal power generators	Reduction of fossil fuel use by replacement of old thermal power generators. Contribution calculated as reduction in CO ₂ emissions proportionally divided by sales

Note 1: Calculations for products using electricity are based on the national or regional CO₂ emission factors given in CO₂ Emissions From Fuel Combustion Highlights (2013 Edition).
Note 2: Calculations for thermal power generation use thermal power generation factors from the calculation method in the Initiative for Creating a Low-Carbon Society, issued by four electrical and electronics industry associations.
Note 3: Calculations for other forms of energy use and greenhouse gases use factors from the Greenhouse Gas (GHG) Emissions Accounting and Reporting Manual issued by the Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry.

Topic 1 Contributing to Reducing Power Usage at Sewage Plants through AI Technology

Mitsubishi Electric has successfully developed an aeration volume control technology by taking advantage of its "Maisart®*1"-brand AI technology. This technology ensures excessive aeration (or air supply) to a bioreactor is kept in check. This is achieved by predicting the quality (concentration of ammonia) of water flowing into the bioreactor, where the oxidation process required for wastewater treatment takes place, with high accuracy several hours in advance. Feed-forward (FF) control, using the predicted data of the influent water quality obtained through AI technology, is combined with traditional feed-back (FB) control of the treated water quality. In this way, aeration volume control can be more responsive to changes in water quality. As a result, excessive aeration can be contained within a specific control compartment. The technology thus reduces aeration by 10%*2 compared to conventional methods, while maintaining the levels of treated water quality. It contributes to reducing electricity usage at sewage plants. In the future, we will verify the consistency of control and the effects on reductions in aeration volume during practical operations. We are aiming to commercialize an operation monitoring control system for sewage plants both in and outside Japan by the end of fiscal 2021.



*1 Stands for "Mitsubishi Electric's AI creates the State-of-the-ART in technology." Mitsubishi Electric's proprietary AI technology brand with the aim of making all devices smarter.
 *2 Results of simulations using actual data from sewage plants

Topic 2 Improving Energy Efficiency of Multi-Split Air Conditioning Systems for Buildings by Incorporating AI

In July 2020, Mitsubishi Electric launched a new integrated air conditioning management system, the AE-200J (Ver 7.9), by incorporating its Maisart®-brand AI technology in a multi air conditioning system for buildings. This became the industry's first*3 AI-equipped multi-split air conditioning system for buildings. The system is connected to the highest-grade model of multi-split air conditioners for buildings, the Grand Multi, and is equipped with an "AI smart start-up" function that enables the system to automatically set an optimal start-up time. The system thus achieves comfortable room temperatures efficiently, and contributes to both greater comfort and energy efficiency.

*3 As of February 27, 2020, in-company survey



External unit of the Grand Multi multi-split air conditioner for buildingsJ (Ver7.9)



AE-200J (Ver 7.9) integrated air conditioning management system

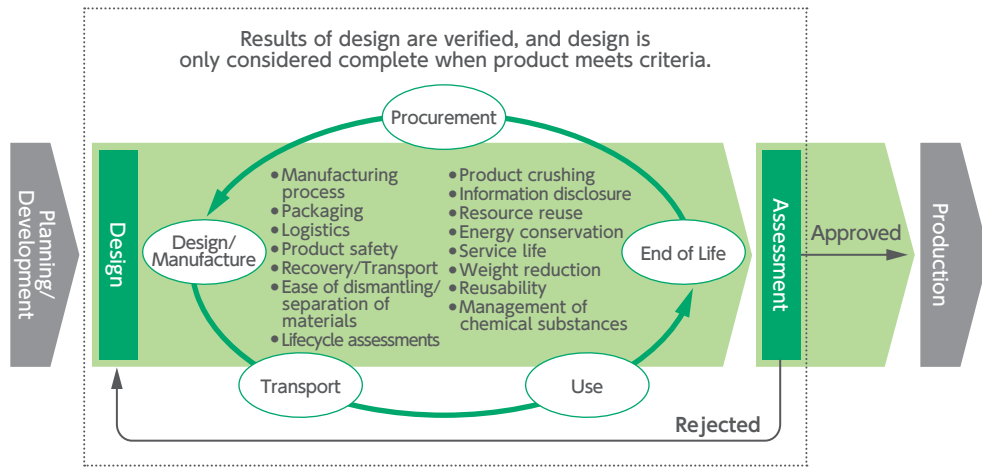
Environmental Considerations through the Lifecycle of Products

Product Development in Consideration of the Overall Lifecycle of Products

As the concept of “lifecycle thinking” grows increasingly more important globally, the Mitsubishi Electric Group aspires to reduce environmental load by closely overseeing the entire product lifecycle, from collecting resources to design, manufacture, and disposal after use. Since fiscal 2004, product environmental assessments for all newly developed products have been implemented from the perspective of MET.* From fiscal 2016, we began operating the assessment based on the Design for Environment rules that conform to international standards focusing on lifecycle thinking. Furthermore, with regard to the index that measures improvements in the environmental efficiency of products (Factor X), we have established an original calculation method based on the MET standard so that it can be used for product environmental assessment.

* MET stands for material (effective use of material resources), energy (efficient use of energy) and toxicity (avoiding emissions of toxic substances with potential environmental risk).

The Concept of Design for the Environment



Product Environmental Assessment that Gives Consideration to MET throughout the Lifecycle of Products

Business Sites

Reducing CO₂ from Production

Targets of the 9th Environmental Plan (Fiscal 2019–2021) and Achievements in Fiscal 2020

The Mitsubishi Electric Group continues to promote activities that combine the initiatives for reducing CO₂ originating from energy and for reducing non-CO₂ greenhouse gases (SF₆, HFCs, and PFCs) with the aim of reducing CO₂ emissions from production.

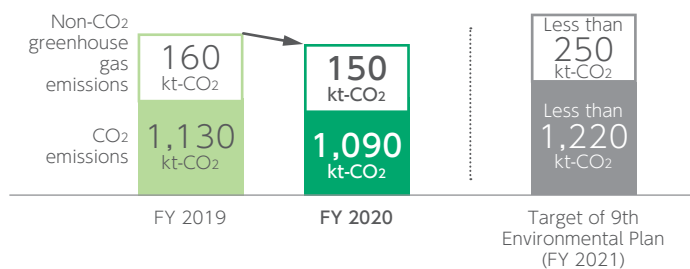
The 9th Environmental Plan (fiscal 2019–2021) is the final environmental program before Environmental Vision 2021 is to be achieved. The goal of this plan is to reduce total annual emissions of greenhouse gases to a CO₂ equivalent of 1.47 million tons or less in fiscal 2021. By achieving this, we will have outperformed our target of 30% reduction from the base year level*, which had been set at the time of formulating Environmental Vision 2021, and will actually achieve a 45% reduction from the base year level.

In fiscal 2020, emissions of greenhouse gases amounted to a CO₂ equivalent of 1.24 million tons and achieved our target of less than 1.43 million tons. One of the major factors behind this accomplishment is the steady reduction of CO₂ emissions originating from energy. This was owing to the introduction of high-efficiency machinery, the switching of fuels, and the progress in thorough waste elimination. Another factor was the acceleration in the reduction of non-CO₂ greenhouse gases, owing to the replacement of traditional refrigerant gases with those having lower global-warming potential (GWP) and the increase in the amount of refrigerant gases recovered during manufacturing processes overseas.

In January 2020, the Mitsubishi Electric Group's targets of reducing greenhouse gases by 2030 were approved as science-based targets, certified by the Science Based Targets (SBT) Initiative. We will hereafter substantiate our roadmap for long-term reductions in greenhouse gas emissions and implement further measures.

Note: Base year for CO₂: Mitsubishi Electric Corporation, fiscal 1991; affiliates in Japan, fiscal 2001; and overseas affiliates, fiscal 2006.
Base year for non-CO₂ greenhouse gasses: Mitsubishi Electric Corporation and affiliates in Japan, fiscal 2001; overseas affiliates, fiscal 2006.

Reducing CO₂ Emissions from Production (Mitsubishi Electric Group)



Note: Calculations were made using the following coefficients:

- Emission coefficient for Japan: 0.487 (published by the Federation of Electric Power Companies of Japan in 2013, when two nuclear power plants are in operation)
- Overseas emission coefficient: Calculated with reference to figures published by the Japan Electrical Manufacturers' Association (JEMA) in 2006.
- The global warming potential (GWP) of non-CO₂ greenhouse gases was calculated in reference to the figure published in IPCC's Second Assessment Report (1995).

Initiatives to Reduce CO₂ Originating from Energy and Their Results

Toward reducing CO₂ originating from energy, our activities focus on systematically introducing and updating high-efficiency and energy-saving equipment, improving operations, and extending energy conservation measures to production lines. As a result, we managed to reduce CO₂ emissions originating from energy by 22 kt to 1.09 million tons in fiscal 2020.

Half of the major achievements were realized through the introduction of high-efficiency machinery, while activities to develop energy-efficient technologies implemented by an internal technical committee also produced solid results. These activities also focus on visualizing and reducing the wasteful use of utilities and production equipment during non-operational hours.

In the classification system (SABC assessment) based on Japan's Energy Savings Law, 11 out of 20 specific Group companies in Japan, including Mitsubishi Electric, have been recognized as excellent business operators (S Class) in terms of energy conservation.

Example Promoting Energy Savings by Shifting to Eco-factory

Fukuyama Works develops and manufactures breakers for low-voltage wiring, electricity meters, indicating meters, and products that support energy savings. As part of Mitsubishi Electric's initiative to promote a shift toward eco-factories, which increase resource efficiency through detailed measurement and monitoring of power use, an operational structure that introduces advanced energy-saving technologies has been constructed at Fukuyama Works as a model factory of that initiative. In recent years, a FEMS*1 energy management system has been introduced that uses measuring terminals produced at the Works and that embodies Mitsubishi Electric's e-F@ctory*2 concept. This system goes beyond visualizing and facilitating the understanding of data, to realizing effective operational control of lighting, air conditioning, and other building equipment through cooperation among the manufacturing, design and environmental management divisions. Owing to the improved operations of production facilities, coupled with the effect of enhanced production areas, energy per unit was reduced by 29% in fiscal 2018 compared to fiscal 2014.

*1 FEMS: Factory Energy Management System

*2 e-F@ctory: Integrated concept proposed by Mitsubishi Electric to construct highly reliable and flexible manufacturing systems that enable users to achieve high-speed and information-driven production targets.



Fukuyama Works

Initiatives to Reduce SF₆, HFCs and PFCs, and the Results

Three types of non-CO₂ greenhouse gases are emitted by the Mitsubishi Electric Group in its business activities: SF₆ (sulfur hexafluoride), HFCs (hydrofluorocarbons), and PFCs (Perfluorocarbons). SF₆ is used inside gas-insulated switchgear for electrical insulation, as well as in the etching process during semiconductor and liquid-crystal display production.

HFCs are used as refrigerants in air conditioners and refrigerators, while PFCs are used during the etching process in production of semiconductors and liquid-crystal displays.

In fiscal 2020, we continued our initiatives for switching to the use of refrigerants with lower GWP, improving operations, and achieving greater gas recovery and abatement. Owing to these measures, emissions turned out to be 68 kt less than our initial prediction, which anticipated a year-on-year increase due to growth in business. Due to an increase in production, increased emissions were anticipated, however there turned out to be a 0.8 kt reduction compared to the previous fiscal year.

Greenhouse Gases	Past Measures	8th Environmental Plan			9th Environmental Plan		
		2016	2017	2018	2019	2020	2021
SF ₆ (Sulfur hexafluoride)	Vacuum pump Recovery/abatement Early gas-leakage detection	Japan: Expand introduction of recovery/abatement systems					
		Overseas: Improve operation during filling process		Overseas: Strengthen SF ₆ reduction measures			
HFCs (Hydrofluorocarbons)	Recovery	Japan: Switch refrigerant (from R410A to R32)					
		Japan: Completed construction of refrigerant recovery scheme		Overseas: Switch refrigerant (from R410A to R32)			
		Overseas: Construct refrigerant recovery/disposal scheme					
PFCs (Perfluorocarbons)	Recovery/abatement system	Japan: Expand introduction of recovery/abatement systems					

Effective Utilization of Resources

Targets of the 9th Environmental Plan (Fiscal 2019–2021) and Achievements in Fiscal 2020

The Mitsubishi Electric Group focuses on the following three measures to reduce final disposal ratios: thorough analysis and separation of waste for conversion into valuable resources; higher levels of conversion into valuable resources through development of disposal contractors, sharing information about waste disposal contractors; and increasing the efficiency of waste (recycling) logistics.

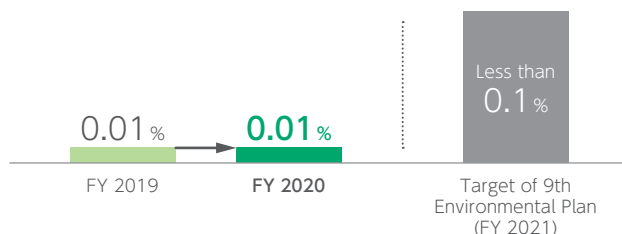
Under the 9th Environmental Plan (fiscal 2019–2021), the target final disposal ratio is to be maintained at less than 0.1% for Mitsubishi Electric Group companies in Japan. In fiscal 2020, the ratio was 0.01%. Overseas affiliates had a final disposal ratio of 0.38% in comparison with their target of less than 0.5%, which meant the targets were achieved both in Japan and overseas.

Results of Activities at Mitsubishi Electric Group Companies in Japan

Each Mitsubishi Electric production base manufactures different products, and therefore generates different kinds of waste. Thus, the general rule is for each base to create and implement its own plan. At the same time, however, all bases share management expertise and information on contractors, and cooperate with neighboring bases to ensure proper waste management.

In addition to the above, a waste control system has been introduced to all 26 Mitsubishi Electric production bases to strengthen compliance. Furthermore, affiliated companies in Japan make ongoing efforts to implement initiatives that have been proven effective at Mitsubishi Electric’s production bases, and to pursue thorough waste separation.

Final Waste Disposal Ratios (Mitsubishi Electric Group Companies in Japan)

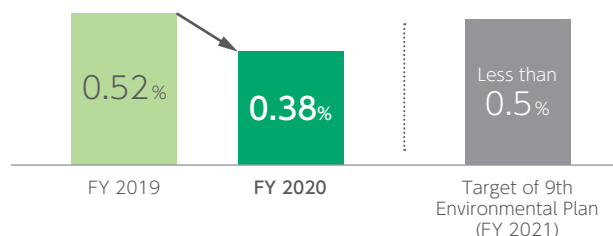


Total waste output amounted to 133 kt in fiscal 2020, slightly down compared to the previous fiscal year, and the final disposal ratio was maintained at 0.01%.

Results of Activities at Overseas Affiliates

It is difficult to set the same target levels as Japan for overseas affiliates, as regulations and waste treatment practices vary by country and region. Nevertheless, there are some activities that can also be implemented overseas, such as thorough separation, recycling, improvement in the efficiency of collection and transportation, and expansion in recycling of used plastics.

Final Waste Disposal Ratios (Overseas Affiliates)



In fiscal 2020, the final disposal ratio fell short of the target. Thus, in fiscal 2020, we addressed this issue by checking the status of waste discharge at overseas affiliated companies in cooperation with their supervising business groups and environmental offices in the region, and offered support in reducing the amount of landfill solid waste, sorting waste, and selecting disposal contractors. We also promoted plastic recycling at our European manufacturing bases. Owing to these measures, we achieved our target with a total waste discharge of 77 kt and a final disposal ratio of 0.38%.

→For details on total waste discharge and the final disposal ratios, please refer to “Material Balance” on page 39.

Specification, Disposal and Transportation of Hazardous Wastes

The Mitsubishi Electric Group specifies hazardous wastes as follows, monitors their output and appropriately disposes of them in compliance with the laws and regulations of the regions in which our facilities are located. We also carry out material recycling and thermal recycling where we can in order to reduce final disposal (landfill) volume.

- Mitsubishi Electric and affiliates in Japan: “Specially-controlled industrial wastes” specified by the Japanese Waste Disposal Law
- Overseas affiliates: Hazardous wastes defined by local laws and regulations

Wastes containing polychlorinated biphenyl (PCB) are managed separately based on the “Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes, PCB Special Measures.” Please refer to “Preventing Environmental Incidents” on page 15 for details.

In fiscal 2020, total hazardous waste emissions of Mitsubishi Electric Group companies in Japan amounted to 1,685 tons, of which 1,341 tons were recycled. That of overseas affiliates totaled 10,922 tons, of which 8,555 tons were recycled.

Using Water Effectively

Targets of the 9th Environmental Plan (Fiscal 2019–2021) and Achievements in Fiscal 2020

Considering the increasing importance of water resources worldwide, the Mitsubishi Electric Group is continuously measuring data on water used/reused at all of its 80 business sites in Japan and overseas. These figures are checked on a regular basis for any significant change, and depending on the findings, necessary measures are taken when needed. Any effective case examples are shared with other business sites on occasions such as Key Environmental Personnel Liaison Meetings to be implemented laterally.

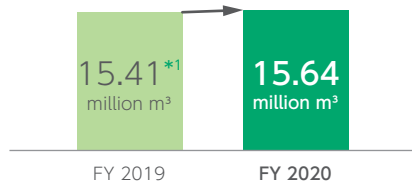
Our aim under the 9th Environmental Plan (fiscal 2019–2021) is to reduce water usage per unit of sales by 1% per annum compared to fiscal 2011. Based on this, we are engaging in thorough management of water usage/drainage volumes and reducing water usage by saving and reusing water.

In fiscal 2020, water usage totaled 15.64 million m³ by the Mitsubishi Electric Group, of which 4.65 million m³ was reused water, corresponding to a reuse ratio of 30%. Additionally, water usage per unit of sales was 3.51 (m³/million yen), marking a reduction by 21% compared to the base year (fiscal 2011).

In Japan, water used in production processes was recycled for reuse in the same processes, and treated wastewater was used for flushing toilets and refilling cooling towers to promote the use of gray water. Rainwater was also used to reduce the use of groundwater. As a result of these initiatives, water usage totaled 13.66 million m³, of which 4.54 million m³ was reused water, corresponding to a reuse ratio of 33%. Outside of Japan, we focused on curbing the amount of water intake by reusing water and expanded the use of gray water. Owing in particular to initiatives taken at our business sites in China to conserve water and keep water usage down by increasing water reuse, water usage amounted to 1.99 million m³, of which 0.11 million m³ was reused water, corresponding to a reuse ratio of 6%.

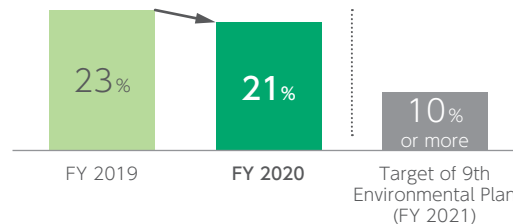
Going forward, we will strive to reduce environmental impact by saving water and expanding the reuse of water in accordance with the water resource environment and business characteristics in each business site.

Total Water Usage (Mitsubishi Electric Group)



^{*1} This figure has been altered in accordance with the new aggregation method.

Ratios of Reductions in Water Usage per Unit of Sales (Mitsubishi Electric Group)



→For details on total water usage, please refer to “Material Balance” on page 39.

Managing Water Risk

Water risk is increasing worldwide with ever-more serious water shortages and pollution, as well as abnormal weather caused by climate change. This affects the production of both raw materials and products, leading to a corresponding interest in corporate water risk management.

Water risk within the Mitsubishi Electric Group is evaluated as part of our corporate risk management framework. The evaluation factors in the influence on stakeholders, as well as the impact on ecosystems. We use the results of this assessment to prioritize countermeasures for each production base and take clear action.

During product development, we evaluate product impact on water sources and their lifecycles and strive to minimize the impact.

Evaluation Details

The Mitsubishi Electric Group uses WRI Water Aqueduct^{*2} and other risk assessment tools to keep track of current and future water risk at business sites both in Japan and abroad (including the presence of water stress^{*3}).

In February 2020, following an update of WRI Aqueduct, we conducted a risk re-evaluation of business sites in Japan and overseas from two perspectives, the result of Aqueduct assessment and the business characteristics of each site.

Depending on the evaluation results, we will implement measures to mitigate future risks.



^{*2} WRI Aqueduct: Water risk assessment tool developed by the World Resources Institute (WRI)

^{*3} Water stress: Water stress levels can be defined by an index that indicates how close the relationship is between the supply and demand of water. When maximum water availability per capita falls below 1,700 m³, it is considered that water stress is present.

Tool Used

WRI Aqueduct 3.0

Status of Water Intake/Drainage/Reuse

Status of Water Intake

At business sites of the Mitsubishi Electric Group, water is taken to be used mainly for cooling, cleaning and adjusting the concentration of water-based paints, and as a solvent, an additive to materials and a heat medium. Water intake in fiscal 2020 was 11.00 million m³, 0.1 million m³ increase the previous fiscal year.

Status of Water Drainage

To avoid exceeding standard values set for each drainage point, the Mitsubishi Electric Group has established even more stringent voluntary standards, based on which water is treated before it is discharged. When there is a certain drainage standard in place according to properties specific to the water area, such a standard is also incorporated into our standards. The compliance of these standards is confirmed through measurements conducted on a regular basis.

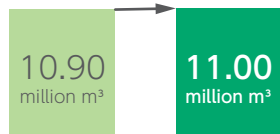
Water drainage in fiscal 2020 was 8.62 million m³, 0.4 million m³ increase the previous fiscal year.

Status of Water Reuse

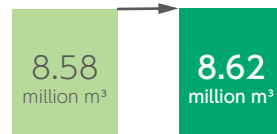
At Mitsubishi Electric Group's factories, not only fresh intake water, but water that has been used once is reused after it is treated and recycled.

Reused water totaled 4.65 million m³ in fiscal 2020, corresponding to a reuse ratio of 30%.

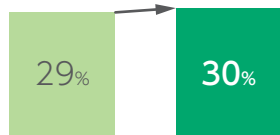
Water Intake
(Mitsubishi Electric Group)



Water Drainage Volume
(Mitsubishi Electric Group)



Water Reuse Ratio
(Mitsubishi Electric Group)



→For details, please refer to “Amount of Water Intake/Drainage/Reuse” on page 41.

Example Promoting Reductions in Water Usage by Recycling Discharged Water

In Thailand, the Water Resource Act came into effect in 2018 as a measure against repeated floods and droughts and the severe water shortage that has occurred as a result of economic growth. Additionally, in January 2020, the Department of Industrial Works (DIW) of the Thai Ministry of Industry issued a request to the country's manufacturing industries for their cooperation in reducing the discharge of water to outside the factories and in using water efficiently. These developments highlight the increasing importance of water resources. Under these circumstances, a new drainage water recycling system was introduced to Kang Yong Electric Public Co., Ltd., our affiliated company located in Samut Prakan, upon designing a plumbing plan, improving water delivery facilities, and adjusting water pressure, water volume, and the amount of chemicals injected to ensure that the appropriate levels of water quality are maintained. As a result, clean water used per employee was reduced by about 20%. We aim to further save clean water by expanding the use of recycled water to production processes that require high water quality.



Receiving “A-List Company” Recognition, the Highest Evaluation from CDP* for Fourth Consecutive Year

In fiscal 2019, Mitsubishi Electric has been named an A-List company in the CDP Water Program for the fourth consecutive year, from fiscal 2017 to 2020. The CDP awarded us this highest evaluation in recognition of exceptional activities in terms of measures and strategies for water resources.

We will continue to press forward with our efforts to contribute to the realization of a sustainable society.

* CDP: An international NGO that examines, evaluates and discloses environmental initiatives of corporations and cities.



Managing Chemical Substances

Tracking the Use of Controlled Chemical Substances with Our Own Chemical Substance Management System

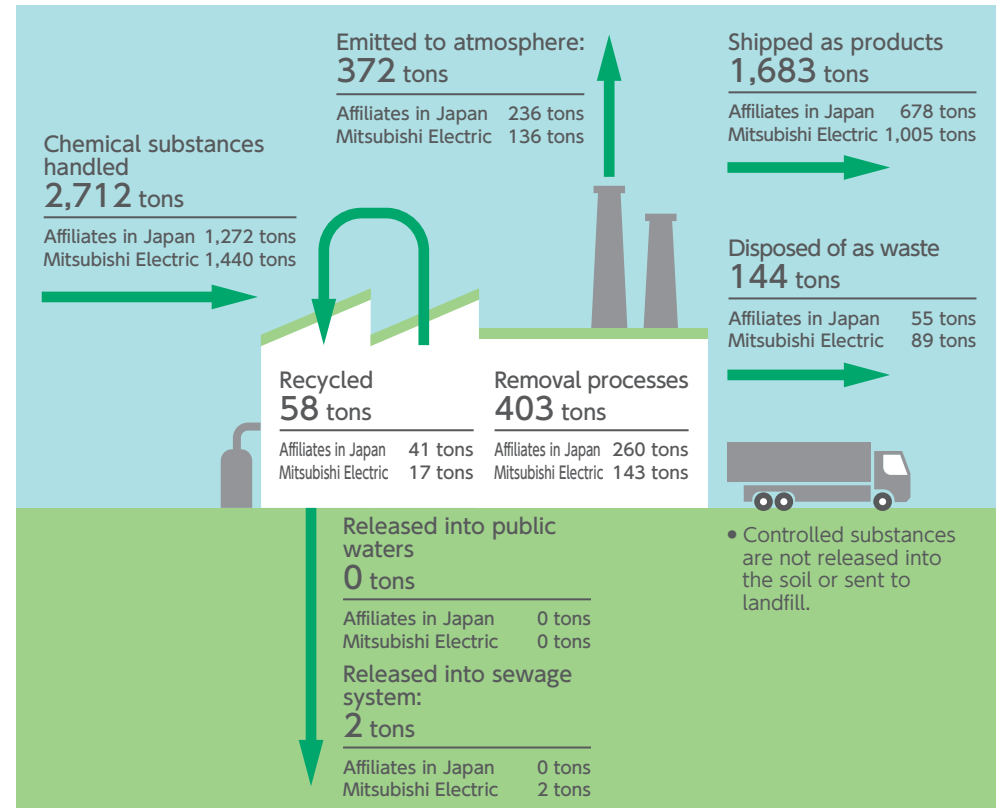
Mitsubishi Electric Group companies in Japan have been managing internally defined controlled chemical substances on a voluntary basis since 1997. Additionally, chemical substances contained in products are managed in Japan and abroad using the MelHARo-web chemical substance management system, which includes procurement information for both materials and parts. For example, in addition to the four phthalates added to the list of restricted substances pursuant to the EU RoHS Directive,*1 further restrictions will be introduced in July 2020 in accordance with the European REACH regulation.*2 Ahead of this, we have completed replacements for relevant products in the European market.

We also apply our Chemical Substance Management System to the management of release and transfer of substances regulated by the PRTR Law*3 (PRTR*4) and volatile organic compounds (VOCs). Sulfur oxide (SOx) and nitrogen oxide (NOx) are also managed using our voluntary standards based on the laws and regulations of the regions where our business sites are located. We will continue to track and manage our use of these substances, and eliminate any unnecessary use.

*1 EU RoHS Directive: Directive on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment adopted by the European Union.
 *2 European REACH regulation: A regulation of the European Union concerning registration, evaluation, authorization and restriction of chemical substances.
 *3 PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.
 *4 PRTR: Pollutant Release and Transfer Register. A system under which companies track the quantity of substances potentially harmful to human health or the ecosystem which are released into the environment or transferred inside waste material, and report this data to government authorities. The authorities then use these reports and other statistics to produce estimates on release and transfer, and announce them publicly.

→For details on the release and transfer of chemical substances, please refer to "Material Balance" on page 39.

Fiscal 2020 Release and Transfer of Substances Regulated by the PRTR Law (Mitsubishi Electric Group Companies in Japan)



Mitsubishi Electric Group Biodiversity Preservation Activities

Biodiversity Action Guidelines

The Earth's ecosystem is made up of diverse living organisms. All aspects of human civilization benefit from this ecosystem, but at the same time, we affect it in both direct and indirect ways. Today, damage to the ecosystem is said to be driving many species to extinction and otherwise eroding biodiversity.

In recognition of this, the Mitsubishi Electric Group has established Biodiversity Action Guidelines, which add to the Group's environmental activities aimed at the creation of a low-carbon and recycling-based society from the perspective of biodiversity conservation. These guidelines define the role of business activities in preserving biodiversity, and outline the Group's efforts toward the development of a sustainable society through its business activities.

Resources & Procurement

Recognizing that we utilize globally procured natural resources such as minerals, fuels and plants, we shall aim to preserve biodiversity in Japan and around the world by carrying out green procurement activities.

Product Design

In designing our products and services, we shall promote the effective utilization of resources and the efficient use of energy, as well as aim to prevent the emission of substances that pose a risk to the environment.

Manufacturing & Transportation

When commencing or making changes to land use, such as when constructing factories or warehouses, we will give due consideration to protecting the biodiversity of the land in question. In manufacturing and transportation, we aim to minimize energy use, waste generation and the emission of chemical substances.

Sales, Usage & Maintenance

In our sales activities, we will work to promote better understanding among our customers of the impact that product/service usage and maintenance can have on biodiversity.

Collection & Recycling

We will actively develop recycling technologies and apply them to collected end-of-life products.

Understanding & Action

We will deepen our understanding of the importance of biodiversity and our relationship to it, and will actively and voluntarily take actions necessary to coexist in harmony with nature.

Cooperation

All companies in the Mitsubishi Electric Group, including overseas affiliates, will act as one, in cooperation with local communities, NGOs and governments.

Considering Biodiversity in All of Our Business Activities

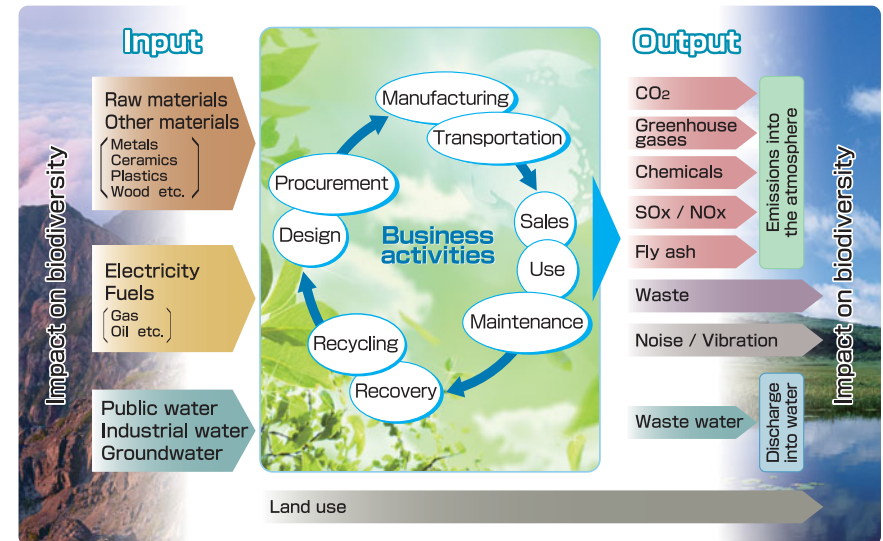
All human activities benefit from the workings of a wide variety of organisms living on earth. At the same time, various activities by human beings are destroying ecosystems and are otherwise having serious effects on biodiversity. Now, at a time when the extinction of many species is being reported, biodiversity preservation is a shared issue for all humanity.

The Mitsubishi Electric Group identifies "Respect for Biodiversity" as one of the pillars of Environmental Vision 2021, which was set forth in October 2007. This is because we believe that a strong desire to protect the earth's environment forms the most important foundation for a sustainable society. To this end, it is imperative to foster and develop environmental awareness in each employee. In May 2010, we introduced our Biodiversity Action Guidelines. These guidelines have two main features: (1) they include the pledge of every Mitsubishi Electric Group employee to understand the relationship between business activities and biodiversity in order for the Group to consider biodiversity in all of its business activities; and (2) they are structured according to each stage of the product lifecycle to facilitate this.

Visualizing the Relationship between Business Activities and Biodiversity to Implement Proper Action

To deepen employee understanding of biodiversity, Mitsubishi Electric has summarized the relationship between the company's business activities and biodiversity in a chart as shown below. Using this chart, the Mitsubishi Electric Group's business sites both in Japan and overseas are renewing their awareness of relations between their own business activities and the biodiversity and natural environment of their surrounding region, and are linking this awareness to concrete actions that contribute to communication with local communities and to the preservation of biodiversity.

Relationship between Business Activities and Biodiversity



Biodiversity Preservation Activities

Activity	Purpose	Details
Mitsubishi Electric Outdoor Classroom →Please refer to page 31 for details.	Foster environmental awareness among employees	In natural classroom settings such as woodlands, parks, waterways, and seacoasts, employees who serve as leaders invite families to experience nature to learn about the interrelationship between living creatures.
“Satoyama” Woodland Preservation Project	Contribute to society, drawing on the voluntary efforts of employees	Employees strive to restore parks, woodlands, rivers, and other natural areas located close to business sites.
Preserving biodiversity at business sites	Activities centered around co-existence with nature carried out at business sites	Confirmation and appropriate management of rare species, endemic species, and non-native species; promotion of co-existence with nature; and gaining an understanding of our involvement with the surrounding natural environment.

Biodiversity Preservation Measures at Business Sites

Aiming for a Higher Level of Activities

The Mitsubishi Electric Group engages in initiatives that give specific consideration to all species of living creatures. These initiatives include the Mitsubishi Electric Outdoor Classroom, which is aimed at developing environmental awareness, the Satoyama Woodland Preservation Project, which is implemented as a social contribution activity, and measures to reduce the impacts of development pressure*1 and alien species pressure*2 on ecosystems. As the basis of these initiatives, we have been promoting a biodiversity preservation policy at business sites since fiscal 2015, with a focus on improving the quality of greenery within the premises of all business sites. The policy aims for all employees to make a direct contribution to regional/urban ecosystems in areas around their site by working to preserve biodiversity at their own workplace. It also encourages employees to take positive and voluntary action by regarding biodiversity as a personally relevant issue.

As these initiatives have spread to a certain extent, in fiscal 2020, we embarked on establishing a structure to consistently step up our activities. In March 2020, an internal technical committee formulated the Biodiversity Guidelines (a check sheet) so that the implementation level of activities and the quality of greenery at each business site could be assessed in numbers. In the future, by managing plans (i.e., setting targets and monitoring their degree of achievement) across our business sites, we will continue to steadily engage in ecosystem improvement activities over the long term.

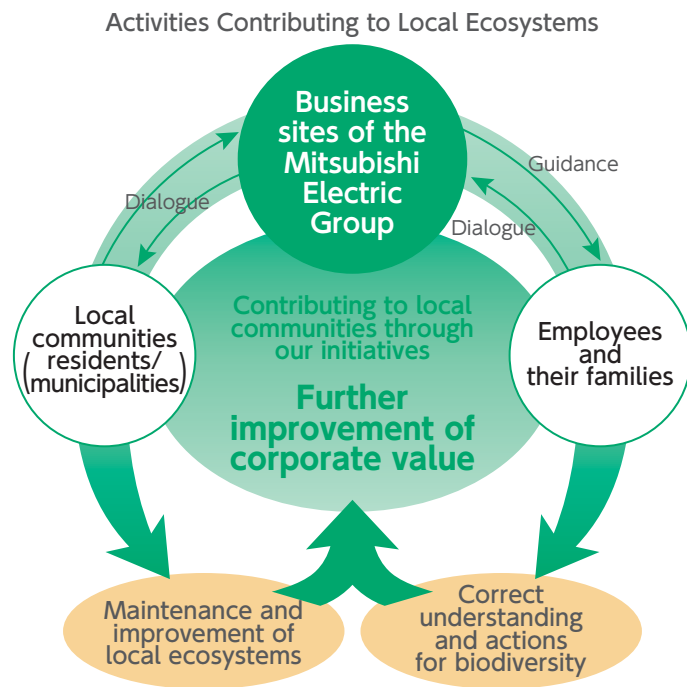
*1 Development pressure: An action resulting in the destruction of habitats. The construction of a new business site and development (including that in the supply chain) intended to extract natural resources are deemed as such behaviors. One such example is when the use of water by operations affects the surrounding area, the source of water, and subsequently the habitats of living creatures.

*2 Alien species pressure: When ditches, greenery at the side of buildings, and hedges are created, non-native species of insects, vegetation, etc. may be introduced. The unintentional transfer of living creatures could pose a threat to the habitats of indigenous species or trigger genetic pollution.

Improving Enterprise Value through a Long-term Commitment to Environmental Initiatives

The destruction of the global ecosystem by human activities is the essence of environmental issues. Biodiversity preservation is essential for the continued existence of us human beings, and should be prioritized in all human activities. This is now a prevalent belief, as also clearly expressed in the Aichi Target and the National Biodiversity Strategy of Japan 2012–2020.

As it takes many years to maintain and enhance biodiversity, steady and continuous efforts are required over the long term. The Mitsubishi Electric Group will continue to make a constant contribution to improving the quality of regional ecosystems, and by earning respect and trust from local communities through these initiatives, we will strive to improve our corporate value.



Improving the Quality of Greenery in Line with Three Courses of Action

The Mitsubishi Electric Group has set forth three courses of action as guidelines for all business sites. They are: (1) reducing negative impact on living creatures, (2) aiming for a richer symbiosis with other living creatures, and (3) restoring the relationship between employees and nature in the working environment. At each business site, action plans provide for the preservation of local indigenous species, control of alien species, and development of green space in consideration of the surrounding ecosystem, to ensure these initiatives are steadily addressed in all businesses.

Three Courses of Action

Courses of Action	Examples	
A Reducing negative impact on living creatures	1. Control development pressure and alien species pressure*	(1) Assessment of impacts on living creatures (2) Alien species control
	2. Call attention to and preserve rare species and endemic species	(1) Disclosure of list of living creatures on premises (2) Preservation of rare species and endemic species (3) Cooperation in regards to conservation issues for surrounding areas
	3. Manage pesticides, preserve greenery and natural resources	(1) Control the killing/harming of living creatures (2) Consideration to natural resources, such as water and soil
B Aiming for more fruitful symbiosis with other living creatures	4. Set up functional greenery	(1) System to manage green space (2) Management of land used by flying organisms (3) Development of priority land for greenery and living creatures (4) Provision of continuity of greenery with areas surrounding business sites (5) Contribution to biodiversity preservation activities in areas surrounding business sites
	5. Break away from agricultural orientations such as simplifying/specifying greenery	(1) Diversification/multi-stratification of vegetation (2) Management of greenery that accords with the characteristics of plants, etc. (3) Contribution/consideration to regions
C Restoring the relationship between employees and nature in the working environment	6. Proactively utilize ecosystem services in the workplace (break rooms, individual floors)	(1) Provision and utilization of opportunities for cultural services (2) Provision and utilization of opportunities for supply services
	7. Change situation from everyone being disinterested and unrelated to everyone being involved	(1) Education for understanding and promoting action (2) Creation of relationships through the workplace or work duties

* Activities are carried out pursuant to the regulation on raising, planting, storing, carrying, or other handling of specified IAS in the Invasive Alien Species Act.

Mitsubishi Electric Outdoor Classroom

Mitsubishi Electric Outdoor Classroom is one of the directives of “fostering environmental awareness” aimed at the realization of a society in tune with nature. These classrooms utilize nearby natural habitats and provide an opportunity for participants and classroom leaders alike to experience nature.

Contemplating the Necessity of Preserving Nature and Taking Action

The Mitsubishi Electric Group is developing personnel who contemplate what is necessary to preserve nature and then take action themselves; in other words, people who are environmentally aware. We want participants to get in touch with nature so that they can realize the impact humans have on nature, increase their awareness of the importance of preserving nature, and take action to reduce their environmental load as much as possible (see the figure on the right). Biodiversity is essential to the continuation of our business activities. On the other hand, our activities—such as consuming various resources, discharging chemical substances, and producing waste—place a burden on ecological systems on a daily basis. We must be aware of this and contribute to reducing the negative impact on the water, air, and soil, in addition to reducing our environmental load and helping to improve the environment through our products.

The foundations of environmental awareness are strengthened deeply and strongly through “fully experiencing nature with the five senses.” The Outdoor Classroom is our initiative to allow ourselves, together with our employees, their families, and local communities, to discover ecology (relationships among living creatures) through experiencing nature. Preserving nature cannot be achieved by the Mitsubishi Electric Group alone. Therefore, it is vital that environmental awareness is spread to various groups of people. Since the program began in October 2006, the Outdoor Classroom has been playing a role as an opportunity for contributing to society and the environment, and has acted as a forum for communication within each region.

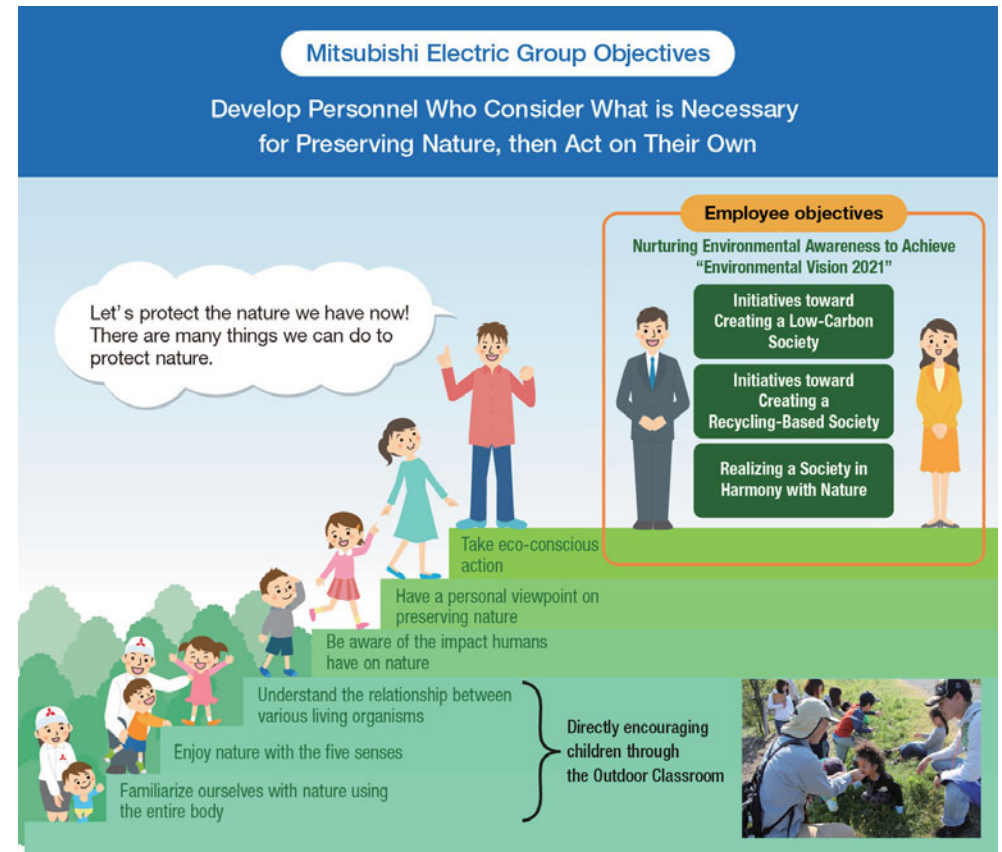


Illustration prepared while referring to a pamphlet introducing the Japan Association for the Promotion of Outdoor Life

Features of the Mitsubishi Electric Outdoor Classroom Employees Responsible for Planning and Managing Programs

In the running of Mitsubishi Electric Outdoor Classrooms, a lot of emphasis is placed on the employees “doing it for themselves.” The programs are planned by Group employees who have completed an Outdoor Classroom Leader Development Course, who serve as “Outdoor Classroom leaders.” The choice of fields, the ways in which nature is experienced, and the timing (season) of the classrooms are all at the discretion of these leaders. The leaders utilize the emotional experiences and discoveries gained through their development course and compile a program of their choice utilizing their own creativity. Mitsubishi Electric also involves the cooperation of local key persons, NPOs, and so on to ensure that our outdoor classrooms leave an even deeper impression on the participants. There are as many variations of the Outdoor Classroom as there are leaders.

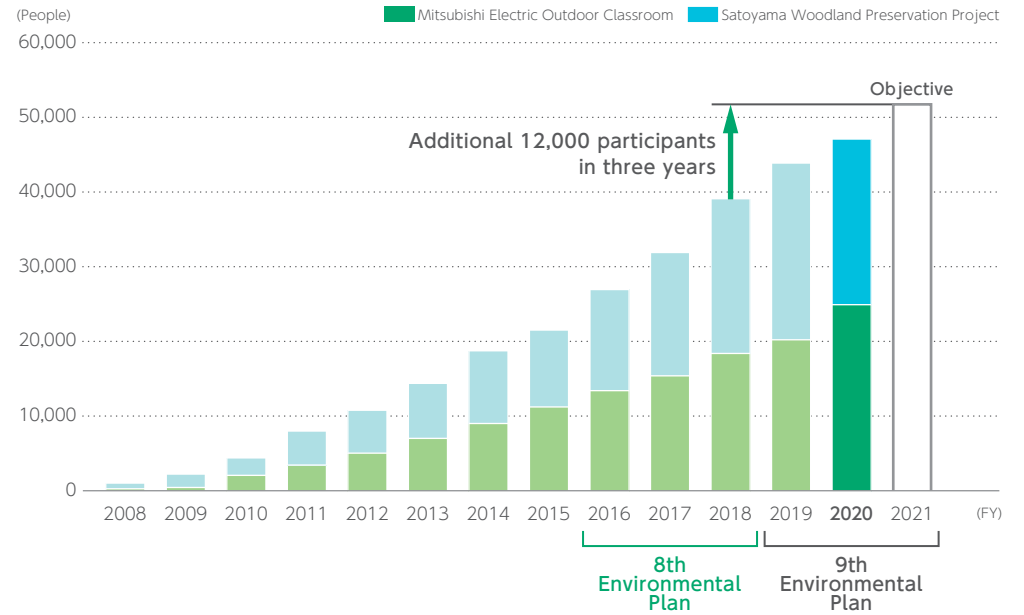
Turning Fields near Business Sites into “Classrooms”

Outdoor classrooms are held in various locations, including mountains, forests, parks, seashores, rivers, rice fields and farms. The outdoor classroom leaders throughout Japan make the neighboring natural habitat their classroom. Occasionally, they may also use the grounds of the business site itself as a classroom. Each location has its own unique fauna, flora, sounds, and smells. Mitsubishi Electric Outdoor Classrooms provide an opportunity for children and adults alike to experience the workings of nature and make various discoveries through their own five senses.

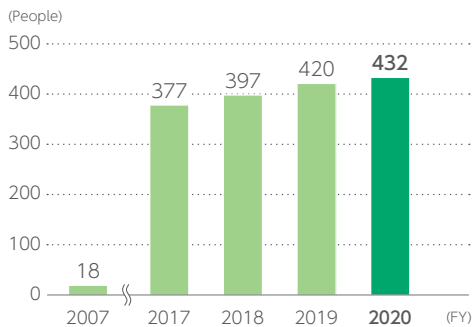
Objectives of the 9th Environmental Plan (Fiscal 2019–2021) and Results of Fiscal 2020

With the 9th Environmental Plan (fiscal 2019–2021), our objective was to continue the “Mitsubishi Electric Outdoor Classrooms” and “Satoyama Woodland Preservation Project,” aiming to surpass the 51,000 mark in total participants by the end of fiscal 2021 by achieving an increase of 12,000 participants from March 2018. With 4,070 people taking part in fiscal 2020, the total number of participants to date has reached 47,808.

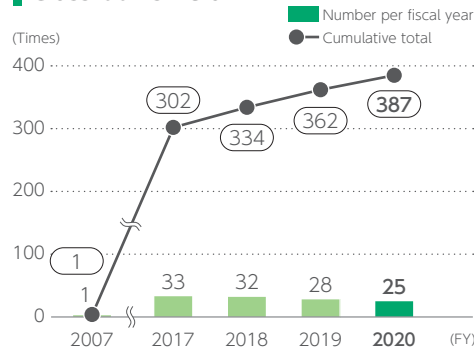
Total Number of Participants in the Mitsubishi Electric Outdoor Classroom and Satoyama Woodland Preservation Project (Results)



Result of Fostering Leaders for Outdoor Classroom (Cumulative Total)



Numbers of Mitsubishi Electric Outdoor Classrooms Held



Logistics

Reducing CO₂ from Logistics

Basic Policies on Logistics (Distribution)

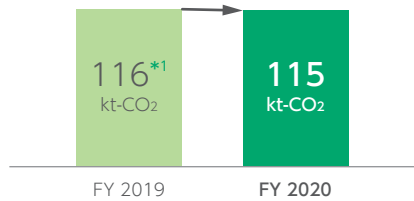
The Mitsubishi Electric Group carries out just-in-time improvement activities to improve logistics. These activities aim to visualize logistics work by quantification, and to eliminate irrational, irregular, and wasted efforts to improve transport efficiency and economy, and to reduce environmental impact through “Eco-Logistics” (Economy & Ecology Logistics).

Fiscal 2020 Achievements of Mitsubishi Electric Group Companies in Japan

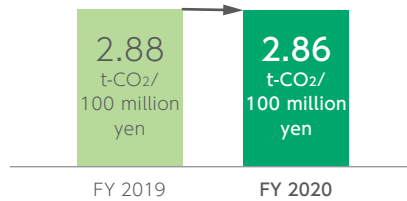
At Mitsubishi Electric Group companies in Japan, the following measures continued to be implemented throughout fiscal 2020. As a result, CO₂ emissions totaled 115 kt-CO₂, and the amount per unit of sales amounted to 2.86 t-CO₂/100 million yen (down 0.6% compared to the previous fiscal year).

- Reviewing transportation routes
- Switching from truck transportation to rail transportation (modal shift)
- Reducing the number of trucks by improving load ratios (including Container Round Use)

Total CO₂ Emissions from Distribution (Mitsubishi Electric Group Companies in Japan)



CO₂ Emissions per Unit of Sales from Distribution (Mitsubishi Electric Group Companies in Japan)

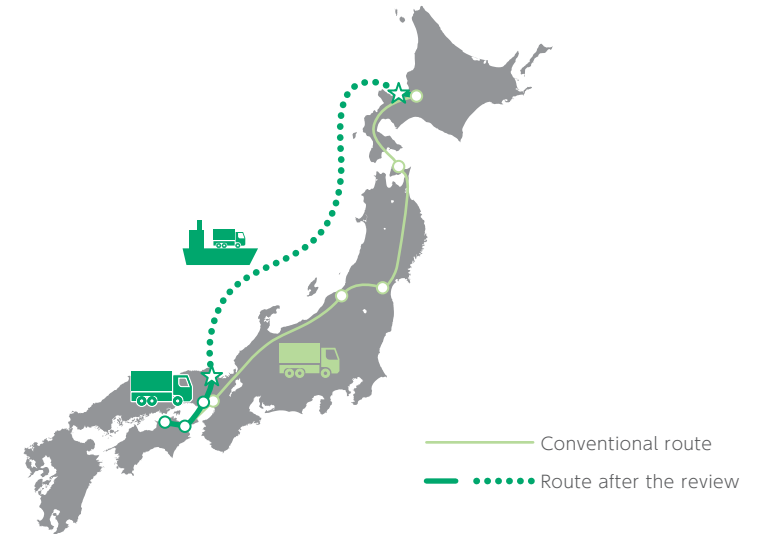


*1 This figure has been altered in accordance with the new aggregation method.

Example

Reducing CO₂ Emissions during Transportation through Utilization of Consolidated Shipping Services

The Power Distribution Systems Center located in Marugame City, Kagawa Prefecture, develops and manufactures groups of products for the safe, steady receiving and distribution of electricity generated by power plants to power/transformation stations across Japan, substations for public systems such as railways, general factories, buildings and other such facilities. Transportation by truck used to be the conventional means of delivery to customers from where the Center is situated in the Shikoku region to Hokkaido. However, one of the problems with this system was the heavy burden that long travel distances imposed on drivers. To solve this issue, consolidated shipping services provided by ferries was utilized for part of the delivery route. As a result, transportation time was reduced from four days to three days, and drivers gained time to rest while they were on board the ferry. Furthermore, a 70% reduction in CO₂ emissions was achieved compared to transportation using trucks alone.



Regarding overseas affiliates, the amount of CO₂ emitted by a total of 20 companies was 320 kt, amount per unit of sales amounted to 36.2 t-CO₂/100 million yen.

→For the actual results of CO₂ emissions and amount per unit of sales from distribution, please refer to “Material Balance” on page 39.

Reducing the Use of Disposable Packaging Materials

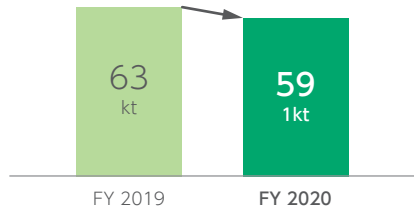
Achievements of Mitsubishi Electric Group Companies in Japan in Fiscal 2020

Improvements in logistics are part of Mitsubishi Electric Group's Just-In-Time improvement activities. Our fundamental principle in this area is to reduce the weight of transport packaging while ensuring that products are delivered safely to customers. Based on this line of thinking, we practice the 3Rs in packaging: reduce (simplify packaging), reuse (more returnable containers and packaging), and recycle (recycling of used packaging material).

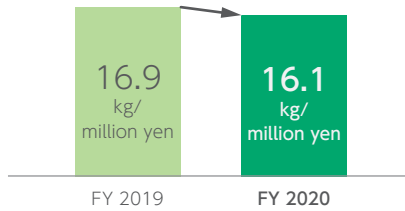
At Mitsubishi Electric Group companies in Japan, simpler packaging is promoted, and the use of returnable containers and packaging has been expanded. Owing to these initiatives, the amount of packaging materials used was 59 kt (down 3.3 kt from the previous fiscal year), and the amount per unit of sales was 16.1 kg/million yen (down 4.7% from the previous fiscal year).

The amount of packaging materials used by our 22 overseas affiliates was 76 kt, and the amount per unit of sales was 87 kg/million yen (a fall of 19% compared to the previous fiscal year).

**Usage of Packaging Materials
(Mitsubishi Electric Group
Companies in Japan)**



**Packaging Materials Used per Unit of Sales
(Mitsubishi Electric Group Companies
in Japan)**



→For the actual results of the usage of packaging materials, please refer to "Material Balance" on page 39.

Product Recycling

Recycling End-of-Life Products

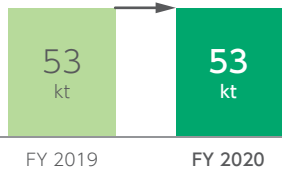
Recycling Four Categories of Home Appliances

The recovery and recycling of four categories of home appliances are mandatory under Japan's Home Appliance Recycling Law:* air conditioners, televisions (CRT, LCD and plasma), refrigerators/freezers, and washing machines/tumble dryers.

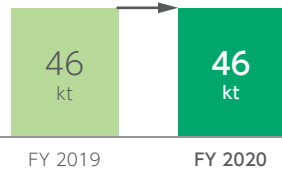
In 1999, Mitsubishi Electric began operations of Hyper Cycle Systems Corporation (HCS) as the industry's first home appliance recycling plant. Between then and fiscal 2020, we recycled 890 kt of appliances. Data on the recovery and recycling of nationwide Mitsubishi Electric appliances in the four designated categories in fiscal 2020 is shown below.

* Home Appliance Recycling Law (April 2001): This law obliges retailers and manufacturers to recover and recycle home appliances such as air conditioners, televisions, refrigerators, and washing machines. Manufacturers and importers must recycle steel, copper, aluminum, glass, plastic, and other materials, and are also responsible for setting up systems to recycle their own products. The law was amended in December 2008 to add tumble driers and LCD and plasma televisions.

Weight of the Four Categories of Mitsubishi Electric Appliances That Have Been Recycled or Otherwise Processed



Weight of the Four Categories of Mitsubishi Electric Appliances That Have Been Recycled



Mitsubishi Electric holds Environmental Design Technology Seminars to showcase technologies developed at its recycling centers and see how they can be applied to everyday product design. Developing technologies for sorting materials recovered from end-of-life home appliances and techniques applicable to recycled materials also increases the amount of recycled material that can be used in our products.

→For the actual results of recovery/recycling, etc. of the four designated categories of home appliances, please refer to "Results of Recovery and Recycling of Four Categories of Home Appliances" on page 42.

Recycling Personal Computers

Mitsubishi Electric promotes recycling of end-of-life personal computers and monitors. In fiscal 2020, we recovered a total of 5,966 office and home computers, with recycling ratios above statutory targets.*1

We started using the PC Recycle Mark*2 verification logo to show that end-of-life home computers can be disposed of without charge. Customers must request the mark after purchase for some products, but the procedure is very simple and involves nothing more than sending a postcard or applying via our site.*3 For products sold after October 2003 where the customer asks us for disposal, we check if the product is eligible for the PC Recycle Mark to make sure the customer does not pay the recycling fee twice.

Although preventing data leaks from hard drives during disposal of personal computers is essentially the user's responsibility, our subcontracted recycling agents do all they can to prevent data leaks, for example punching holes in hard drives and exposing them to strong magnetic fields to ensure physical and magnetic destruction. For office computers, we offer a paid service where customers can ask for all data to be erased by specialized software before recovery.

*1 Desktop computers: 50% or more
 Notebook computers: 20% or more
 CRT displays: 55% or more
 LCD displays: 55% or more

*2 PC Recycle Mark: The recycling mark stipulated by industry group PC3R Promotion Association, established to promote the 3Rs (reduce, reuse, recycle) among manufacturers, distributors, and importers of computers and monitors. The scheme applies to home computers and monitors sold after October 2003. Some products have the mark displayed at the time of purchase, or it may be available after purchase via registration.

*3 Mitsubishi Electric stopped selling home computers in fiscal 1999, so only our PC displays are eligible for Recycle Mark applications.

Closed-Loop Recycling of Plastic

The Mitsubishi Electric Group's "Closed-Loop Recycling" Initiative

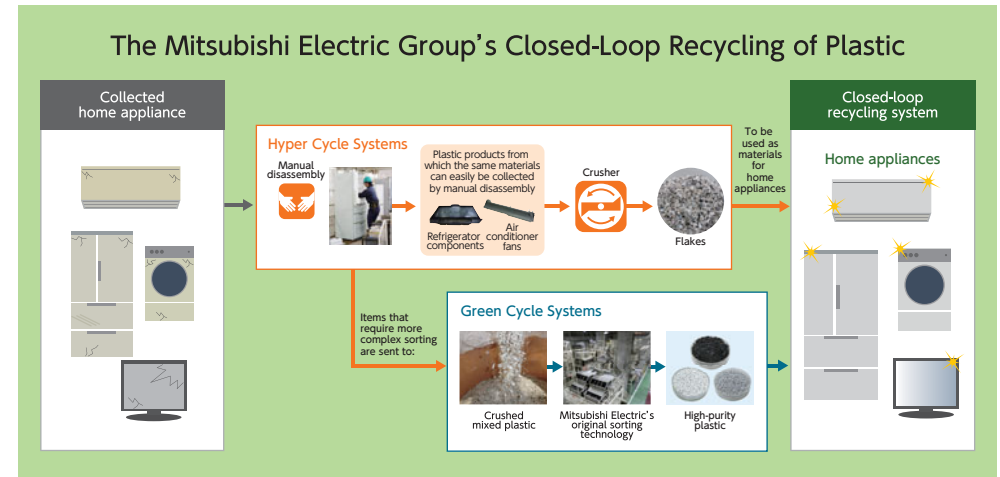
The Mitsubishi Electric Group, which aims to realize a sustainable society, has set out achieving a recycling-oriented society as one of its priority initiatives in an effort to solve environmental issues. The Group promotes the "3Rs"; reduce, reuse, and recycle, and engages in recycling of plastic in used home appliances as a business.

What Is the Mitsubishi Electric Group's "Closed-Loop Recycling" Initiative?

Since 1999, which was before the enforcement of the Home Appliance Recycling Law in Japan in 2001, the Mitsubishi Electric Group has been operating the industry's first home appliance recycling plant to promote the recycling business. Since 2010, the Group has been fully implementing "closed-loop recycling," in which plastic collected from used home appliances is reused in Mitsubishi Electric's new home appliance products. In this recycling system, it is important to collect as much plastic without foreign matter as possible from products composed of diverse materials.

Hyper Cycle Systems (HCS), a home appliance recycling plant, and Green Cycle Systems (GCS), a plant which sorts plastic, play the main role in this initiative. HCS first disassembles used home appliances, which are then crushed with machines. Among them, selected plastics are then sent to GCS, which sorts different types of plastic. GCS currently recycles approximately 80% of mixed plastic that it has procured into "high-purity plastic" at a level of quality equal to virgin materials. In these processes, the Mitsubishi Electric Group's various technologies are utilized to achieve high-precision separation. We are also developing new technologies as needed.

Through collaboration between HCS, GCS, and Mitsubishi Electric's works and laboratories, a "closed-loop recycling" system has been achieved to reclaim plastic used in home appliances and which can be utilized again for new home appliances. The Mitsubishi Electric Group's endeavor is far from over for further improvement of the system.



→For recycling of home appliances, please refer to the websites below.

Defining a Recycling-Based Society

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/defining/index.html

Hyper Cycle Systems: Reclaiming Resources from End-of-Lifecycle Products

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/hypercycle/index.html

Green Cycle Systems: Refining Old Plastics into Industrial-Grade Materials

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/greencycle/index.html

Example

Producing “Materials” for Reclaimed Plastic by Disassembling and Crushing Home Appliances—Initiatives at Hyper Cycle Systems (HCS)—

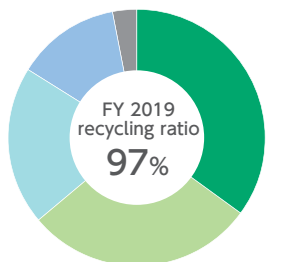
HCS receives nearly 950,000 units of home appliances, etc. annually. Disassembly work starts from components that are easily removable from the home appliance manually. As each product has a different specification, workers use the know-how they have accumulated to separate large components, such as motors and compressors, and toxic substances, such as CFCs and mercury, one by one. Large sections of products that cannot be disassembled manually are crushed using a grinder, and then metals, such as iron, copper, and aluminum, are isolated and recovered using magnetic forces etc. The remaining plastic after recovering metals is called “mixed plastic” as it is not composed of a single material and has various foreign matter in it. Because mixed plastic is useless in Japan, much of it has been exported.



The Mitsubishi Electric Group focused on the value of this mixed plastic. It is finely crushed to a manageable size using HCS’s unique fine crushing technology so that it can easily be handled in the sophisticated sorting process, and is then sent to GCS which is responsible for the post-process in which “material” for reclaimed plastic is processed.

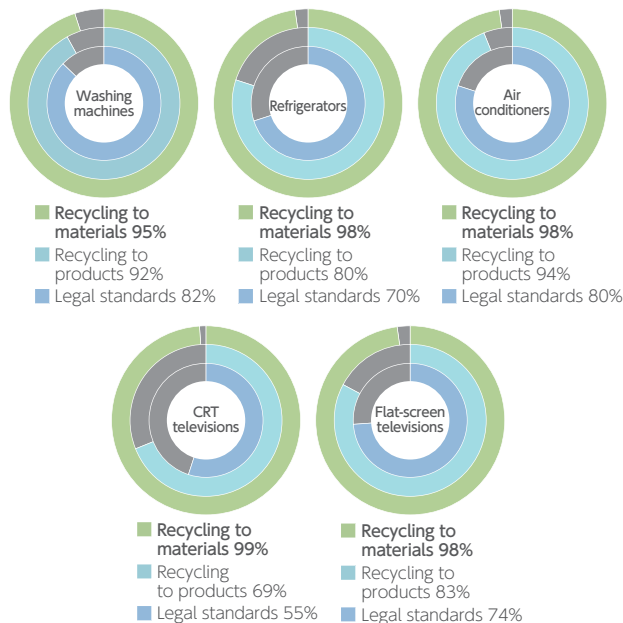
The vegetable containers and door pockets in a refrigerator are typical examples of simple plastic which is easily recyclable and HCS sends these directly to the recycling process.

HCS’s Recycling Results



- Iron 35%
- Recycled plastic 29%
- Non-ferrous metals 20%
- Other 13%
- Simple incineration/landfill 3%

Results of Home Appliance Recycling by Item

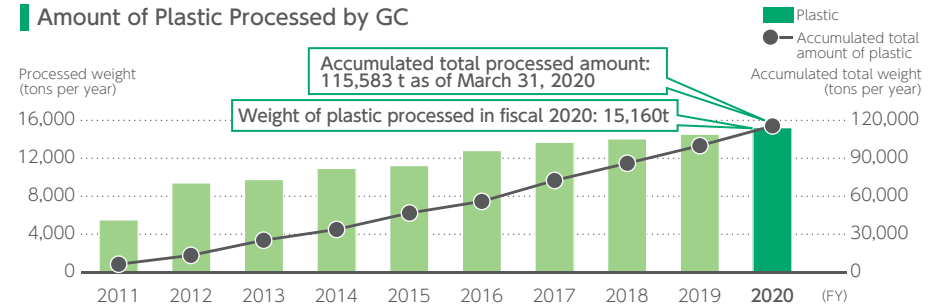


Example

Using Proprietary Sorting Technology to Sort and Recover High-Purity Plastic from Mixed Plastic—Initiatives at Green Cycle Systems (GCS)—

The mission of GCS is to remove foreign matters from procured mixed plastic, sort and recover mixed plastic by type, and produce high-purity plastic that can be recycled at low cost. GCS has been developing technologies required for pursuing this mission one after another in collaboration with Mitsubishi Electric’s laboratories. The Mitsubishi Electric Group was the first in Japan to successfully put high-purity sorting technology for polypropylene (PP), polystyrene (PS), and acrylonitrile-butadiene-styrene (ABS), the three main types of plastic used in home appliances, into practical use. GCS has so far processed an accumulated total of 120kt of mixed plastic. Today, almost 80% of procured mixed plastic is put into material recycling as “high-purity plastic” with the same level of quality as virgin material. Of this 30% is used for home appliances manufactured by Mitsubishi Electric, realizing closed-loop recycling. The remaining 70% of reclaimed plastic is also utilized at various locations as material used in distribution or as construction material in Japan which requires high quality (fiscal 2020 results).

Amount of Plastic Processed by GC



VOICE Recycling Business Supervisor

When we first started the business, the material recycling rate of plastic was around 55%. Because improving the recovery rate while maintaining high-purity in reclaimed plastic is difficult, the Group united to review all kinds of processes and make steady improvement efforts and finally achieved the current recycling rate of 80%.

GCS’s ultimate goal is to improve the value of material, put as much reclaimed material as possible into Mitsubishi Electric’s new home appliances to be manufactured, thereby increasing the rate of closed-loop recycling, while reducing the cost of its home appliance products at the same time. In collaboration with Mitsubishi Electric’s works and laboratories, we will continue to expand the scale of closed-loop recycling. Replacing virgin material with recycled material is not easy as it requires changes of product design and so on. I believe that the Mitsubishi Electric Group was able to steadily undertake the transfer to making more use of recycled materials because of its clear policy which reflects how seriously the Group considers environmental issues.



Nobuyuki Tsuboi
President
Green Cycle Systems Corporation

Environmental Communication

Basic Stance on Environmental Communication

The Mitsubishi Electric Group widely communicates its environmental initiatives through a variety of media, including websites, social networks, and showrooms, as well as environmental events and exhibitions held both in Japan and overseas. Our aim is to fulfill our responsibility as a company committed to solving environmental issues. We will also engage in proactive dialogue, alliance and co-creation with a wide range of stakeholders, and propose new values and lifestyles in harmony with nature.

1. Information disclosure in line with TCFD recommendations

Mitsubishi Electric has expressed approval of the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD), based on which it discloses climate change-related information.

→For the details of information disclosure in line with the TCFD recommendations, please refer to “Financial Information Based on Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)” on page 8.

2. Response to research institutions

Mitsubishi Electric actively responds to requests by research institutions and media agencies to take part in surveys relating to environmental initiatives, providing answers with various data and initiatives in the value chain.

3. Participation in industry groups

Mitsubishi Electric takes action toward solving environmental issues and communicates its opinions through participation in the Japan Business Federation and electrical machinery/electronics industry groups.

4. Regional communication

Mitsubishi Electric hosts the Satoyama Woodland Preservation Project and Mitsubishi Electric Outdoor Classrooms. Through these programs, we make ongoing efforts to develop personnel who contemplate what is necessary to preserve nature and then take action themselves by getting in touch with and experiencing nature.

→For details of Satoyama woodland preservation activities, please refer to the “Satoyama Woodland Preservation Project” website.
<https://www.MitsubishiElectric.com/en/sustainability/csr/philanthropy/region/apac/japan/index.html>
 →For details of Mitsubishi Electric Outdoor Classrooms, please refer to “Mitsubishi Electric Outdoor Classrooms” on page 31.

5. Environmental exhibition (Japan)

From December 5 (Thu.) to 7 (Sat.), 2019, EcoPro 2019, one of Japan's largest exhibitions where people can learn about the environment and lifestyles, was held at Tokyo Big Sight. Mitsubishi Electric communicated the contributions made through its business operations in a wide range of areas, from homes to outer space, to visitors. We also shared information about innovations that will open up the future, as well as new lifestyles that encourage people to reflect on themselves.

Our exhibition booth was set up into three zones according to three themes: air, land and water. Through attractions and demonstrations, visitors were able to experience the characteristics of Mitsubishi Electric products and technologies first-hand.

Additionally, in this exhibition, a participatory on-stage event was also held, inviting elementary school and junior and senior high school students who are avid supporters of environmental conservation to present the results of their daily environmental activities.

In the future, we will continue to further expand our environmental initiatives hand in hand with people outside the Group.

Environmental Data

Material Balance

Manufacturing (Input)

	FY 2020	FY 2019	FY 2018
■ Manufacturing			
Materials*1	2,660 kt	2,820 kt	2,360 kt
Total energy input*2	1,957 10,000GJ	2,035 10,000GJ*5	1,962 10,000GJ
Electricity	1,810 GWh	1,874 GWh	1,794 GWh
Traditional electric power	1,788 GWh	1,852 GWh	1,778 GWh
Electric power from renewable energy sources	22 GWh	22 GWh	16 GWh
City gas	37,180,000 m ³	39,910,000 m ³	35,270,000 m ³
LPG	3,617 tons	3,674 tons	3,835 tons
Oil (crude oil equivalent)	3,806 kl	3,917 kl*5	4,840 kl
Other greenhouse gases	7,611 tons	8,237 tons	7,738 tons
Water usage	15,640,000 m ³	15,410,000 m ³	15,610,000 m ³
Intake	11,000,000 m ³	10,900,000 m ³	11,080,000 m ³
Reuse	4,650,000 m ³	4,500,000 m ³	4,530,000 m ³
Chemical substances			
Controlled chemical substances (amounts handled)*3	3,731 tons	4,231 tons	— tons
Volatile organic compounds	2,664 tons	2,777 tons	2,911 tons
Ozone depleting substances	181 tons	203 tons	542 tons
Average reduction rates of resource inputs*4	42 %	42 %*5	41 %*5

*1 Total value for shipping weight of products, plus amount of product packaging materials used, plus total amount of waste.

*2 Includes electricity, city gas, LPG, oil, etc.

*3 Japan: Substances subject to Japan's PRTR law. Overseas: Controlled chemical substances designated by Mitsubishi Electric and used in amounts of 18 kg or more.

*4 Average reduction rates for 64 product groups (compared to fiscal 2001)

*5 These figures have been altered in accordance with the new aggregation method.

Manufacturing (Output)

	FY 2020	FY 2019	FY 2018
■ Products			
Weight of all products sold*6	2,303 kt	2,390 kt	1,980 kt
Weight of packaging materials*7	149 kt	210 kt	160 kt
Japan	62 kt	63 kt	62 kt
Overseas	87 kt	150 kt	100 kt
■ Emissions (from manufacturing)			
Emissions into the atmosphere			
Greenhouse gas emissions (CO ₂ -equivalent)	1,236 kt-CO ₂	1,290 kt-CO ₂ *5	1,270 kt-CO ₂
CO ₂ *8	1,086 kt-CO ₂	1,130 kt-CO ₂	1,080 kt-CO ₂
Other greenhouse gases*9	150 kt-CO ₂	160 kt-CO ₂ *5	190 kt-CO ₂
Chemical substances			
Controlled chemical substances*3	791 tons	881 tons	963 tons
Volatile organic compounds	946 tons	999 tons	1,049 tons
Ozone depleting substances (ODP tons)	0.2 tons	0.1 tons	0.2 tons
NOx	83 tons	— tons	0.6 tons
SOx	1.0 tons	— tons	655 tons
Discharge into water			
Water	8,620,000 m ³	8,580,000 m ³ *5	9,570,000 m ³
Chemical substances			
Controlled chemical substances*3	8.0 tons	8.0 tons	14 tons
BOD	98 tons	— tons	121 tons
COD	131 tons	— tons	144 tons
■ Waste			
Emissions	210,168 tons	212,752 tons	215,590 tons
Non-hazardous waste	197,560 tons	205,530 tons	207,287 tons
Hazardous waste	12,607 tons	7,222 tons	8,303 tons
Waste treatment subcontracted out	110,954 tons	112,196 tons	113,377 tons
In-house weight reduction	550 tons	457 tons	896 tons
Amount recycled	159,340 tons	172,767 tons	162,681 tons
Final disposal	311 tons	404 tons	484 tons
Japan	16 tons	4.8 tons	3.6 tons
Overseas	295 tons	399 tons	480 tons
Final waste disposal ratio (Japan)	0.01 %	0.01 %	0.01 %
Final waste disposal ratio (Overseas)	0.4 %	0.5 %	0.6 %

*6 Shipping weight of products

*7 Total of disposable and returnable packaging materials

*8 Japan: 0.487 t-CO₂/MWh (figure published by the Federation of Electric Power Companies in 2013, when two nuclear power stations are in operation). Overseas: Calculated in reference to data published by the Japan Electrical Manufacturers' Association in 2006.

*9 Global Warming Potential (GWP) for greenhouse gases other than CO₂ is calculated in reference to data published in the IPCC 2nd Evaluation Report (1995).

Transporting (Input)

	FY 2020	FY 2019	FY 2018
■ Sales and Logistics*10			
Fuel for trucks (gasoline)	12,240 kl	12,105 kl	12,049 kl
Japan	12,134 kl	11,994 kl	12,046 kl
Overseas	106 kl	111 kl	3.0 kl
Fuel for trucks (diesel)	55,640 kl	56,613 kl	51,129 kl
Japan	32,174 kl	32,049 kl	32,161 kl
Overseas	23,466 kl	24,564 kl	18,968 kl
Fuel for rail (electricity)	1.8 GWh	1.6 GWh	1.9 GWh
Japan	1.8 GWh	1.6 GWh	1.9 GWh
Overseas	0.0 GWh	0.0 GWh	0.0 GWh
Fuel for marine transport (bunker oil)	74,323 kl	73,488 kl	63,175 kl
Japan	454 kl	428 kl	363 kl
Overseas	73,869 kl	73,060 kl	62,812 kl
Fuel for air transport (jet fuel)	17,959 kl	807 kl	31,252 kl
Japan	624 kl	678 kl	639 kl
Overseas	17,335 kl	129 kl	30,613 kl

*10 Figures for overseas affiliated companies include transportation between countries.

Transporting (Output)

	FY 2020	FY 2019*13	FY 2018
■ Emissions*11 *12			
CO₂	435 kt-CO ₂	394 kt-CO ₂	424 kt-CO ₂
Japan	115 kt-CO ₂	116 kt-CO ₂	114 kt-CO ₂
Overseas	320 kt-CO ₂	278 kt-CO ₂	310 kt-CO ₂

*11 Figures for overseas affiliated companies include transportation between countries.

*12 The sum of these figures and CO₂ emissions from procurement/logistics (0.1 t-CO₂) make up Scope 3 Category 4 emissions (see next page).

*13 These figures have been altered in accordance with the new aggregation method.

Using (Input)

	FY 2020	FY 2019	FY 2018
■ Energy Consumption			
Energy consumed during product use*14	74,800 GWh	76,400 GWh	78,000 GWh

*14 Energy consumed during product use: Total energy consumed (estimated value) when using 76 finished products targeted for CO₂ reduction. The length of use (operating time) is set for each product according to statutory useful life, designed service life, statistical values, etc.

Using (Output)

	FY 2020	FY 2019	FY 2018
■ Emissions			
Greenhouse gas emissions during product usage (CO₂-equivalent)	35,870 kt-CO ₂	36,620 kt-CO ₂	37,360 kt-CO ₂
CO ₂ *15	35,740 kt-CO ₂	36,510 kt-CO ₂	37,230 kt-CO ₂
SF ₆ *16	130 kt-CO ₂	110 kt-CO ₂	130 kt-CO ₂
Average reduction rate of CO₂ during product usage	37 %	36 %	35 %
Contribution to reducing CO₂ during product usage	76,000 kt-CO ₂	77,000 kt-CO ₂	71,000 kt-CO ₂

*15 Sum of CO₂ emitted when using 76 finished products targeted for CO₂ reduction. The amount of CO₂ emitted is equal to the energy consumed multiplied by the CO₂ emissions coefficient, for which the value shown in CO₂ Emissions from Fuel Combustion Highlights (2013 Edition) is used.

*16 Sum of SF₆ gas naturally leaked during the operation of products (6) that use SF₆ gas for insulation. Leakage rate used is the value from JEAC5001-2000. Global warming potential value used is from the 2nd Revised Guidelines of the IPCC.

Reducing Greenhouse Gases Emitted in the Value Chain

The “★” symbol denotes Mitsubishi Electric Group greenhouse gas emissions for which third-party verification has been carried out by SGS Japan Inc.

Scope	Accounting (kt) (Bottom row: Total emission ratio)			Accounting Summary*1
	FY 2020	FY 2019	FY 2018	
Scope 1: Direct emissions from fuel use and industrial processes at our company*2				
	★265 (0.6%)	★278 (0.6%)	★310 (0.7%)	
Scope 2: Indirect emissions associated with use of electricity and heat purchased by our company*3				
Market based	★853 (1.8%)	★981 (2.1%)	★980 (2.1%)	Calculated using the power emission coefficient based on the contract
Location based	★982	★1,020	★970	Calculated using the average emission coefficient of power generated in the area
Scope 3: Indirect emissions outside the scope of our company's operational activities*3				
Category 1 Purchased goods and services	★8,006 (17%)	★7,050 (15%)	★6,700 (14%)	Emissions associated with activities up to the manufacturing of materials, etc. relating to raw materials, parts, purchased products, and sales*4
Category 2 Capital goods	672 (1.5%)	770 (1.7%)	660 (1.4%)	Emissions generated by the construction and manufacturing of own capital goods
Category 3 Fuel- and energy-related activities not included in Scope 1 or Scope 2	83 (0.2%)	87 (0.2%)	85 (0.2%)	Emissions associated with procurement of fuel necessary for power generation, heat supply, etc., and power such as electricity supplied by other parties
Category 4 Upstream transportation and distribution	430 (0.9%)	400 (0.9%)	430 (0.9%)	Emissions associated with logistic processes up to the delivery to our company of materials, etc. relating to raw materials, parts, purchased products, and sales*5
Category 5 Waste generated in operations	0.4 (0.0%)	0.3 (0.0%)	0.4 (0.0%)	Emissions associated with transporting and processing waste produced by our company*6
Category 6 Business travel	★31 (0.1%)	★39 (0.1%)	★40 (0.1%)	Emissions associated with employee business travel*7
Category 7 Employee commuting	★30 (0.1%)	★30 (0.1%)	★29 (0.1%)	Emissions associated with employees commuting to and from their respective workplaces*8
Category 8 Upstream leased assets	—	—	—	Emissions associated with operation of leased assets hired by our company (Calculated by Mitsubishi Electric under Scope 1 and Scope 2)
Category 9 Downstream transportation and distribution	6.6 (0.0%)	6.0 (0.0%)	7.0 (0.0%)	Emissions associated with the transportation, storage, cargo handling and retailing of products
Category 10 Processing of sold products	2.0 (0.0%)	1.8 (0.0%)	2.0 (0.0%)	Emissions associated with the processing of interim products by business operators
Category 11 Use of sold products	★35,865 (77%)	★36,450 (79%)	★37,360 (80%)	Emissions associated with the use of products by users (consumers/business operators)
Category 12 End-of-life treatment of sold products	26 (0.1%)	30 (0.1%)	30 (0.1%)	Emissions associated with the transportation and processing of products for disposal by users (consumers/business operators)*4
Category 13 Downstream leased assets	0.2 (0.0%)	0.2 (0.0%)	0.1 (0.0%)	Emissions associated with operation of leased assets
Category 14 Franchises	—	—	—	Emissions at companies operating as franchises (Not applicable to Mitsubishi Electric)
Category 15 Investments	45 (0.1%)	73 (0.2%)	80 (0.2%)	Emissions associated with operation of investments
Scope 3 total	45,198 (98%)	44,937 (97%)	45,423 (97%)	
Total	46,316 (100.0%)	46,196 (100.0%)	46,713 (100.0%)	

*1 Excerpt from Basic Guidelines published by the Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry
 *2 CO₂, SF₆, HFCs, and PFCs emissions associated with the use of city gas, heavy oil, etc., and with product manufacturing
 *3 CO₂ emissions associated with the use of electricity, etc. *4 Excludes some regions
 *5 CO₂ emissions associated with product distribution/circulation (sales distribution) Subject to accounting: 55 companies (production sites)
 *6 CO₂ emissions associated with transportation of waste (waste distribution) Subject to accounting: Mitsubishi Electric
 *7 Results for Japan. Excludes CO₂ emissions associated with actual use of taxis and accommodation
 *8 Assuming that all employees use passenger rail services

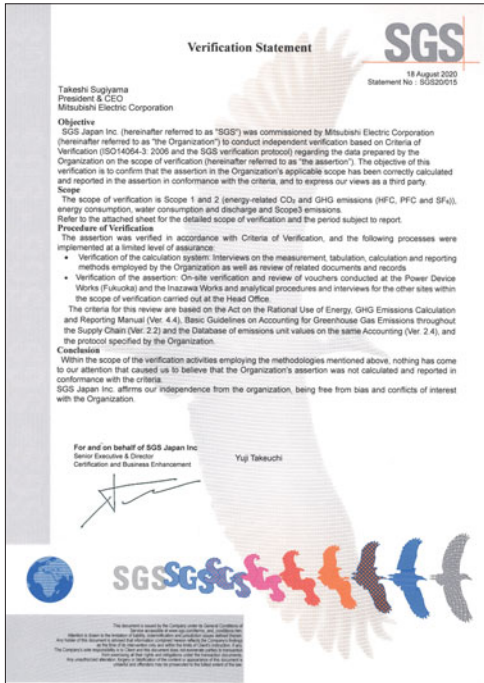
Amount of Water Intake/Drainage/Reuse

Unit: 10,000 m³

Item	Group	Japan*9	Overseas					
			China	Southeast Asia	Europe	US	Latin America	
■ FY 2020 results								
Water usage (water intake plus reuse)	1,564	1,366	199	81	108	1.6	5.2	3.4
Intake	1,100	912	188	74	104	1.6	5.2	3.3
Surface water	337	211	127	31	93	1.1	0.0	2.0
Groundwater	536	535	0.9	0.0	0.9	0.0	0.0	0.0
Seawater	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water discharged during development/mining processes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water purchased from third parties	226	166	60	43	9.7	0.6	5.2	1.3
Drainage volume	862	733	129	62	58	1.4	5.2	2.4
Surface water	408	408	0.0	0.0	0.0	0.0	0.0	0.0
Groundwater	2.7	1.7	1.0	0.4	0.0	0.1	0.0	0.4
Seawater	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water discharged into third-party drainage facilities	451	323	128	62	58	1.3	5.2	1.9
Water reused	465	454	11	6.9	4.2	0.0	0.0	0.0
Water consumption (water intake minus drainage volume)	238	179	59	12	46	0.2	0.0	1.0
Reuse ratio (reused/used) (%)	30	33	5.6	8.5	3.9	0.0	0.0	0.7
Water usage per unit of sales (Water usage/sales) (m³/million yen)	3.5	—	—	—	—	—	—	—
■ FY 2019 results*10								
Water usage (water intake plus reuse)	1,541	1,328	212	85	112	2.1	8.2	4.2
Intake	1,090	888	203	81	107	2.1	8.2	4.2
Surface water	355	221	134	34	96	1.4	0.1	2.8
Groundwater	495	494	1.5	0.0	1.5	0.0	0.0	0.0
Seawater	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water discharged during development/mining processes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water purchased from third parties	240	173	67	46	10	0.7	8.1	1.3
Drainage volume	859	719	140	68	59	1.5	8.1	3.5
Surface water	383	383	0.0	0.0	0.0	0.0	0.0	0.0
Groundwater	1.4	0.2	1.2	0.9	0.0	0.0	0.0	0.3
Seawater	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water discharged into third-party drainage facilities	474	335	139	67	59	1.5	8.1	3.2
Water reused	450	441	9.7	4.7	4.9	0.0	0.0	0.0
Water consumption (water intake minus drainage volume)	232	169	63	13	49	0.6	0.1	0.7
Reuse ratio (reused/used) (%)	29	33	4.5	5.5	4.4	0.0	0.0	0.9
Water usage per unit of sales (Water usage/sales) (m³/million yen)	3.4	—	—	—	—	—	—	—

*9 Sum of Mitsubishi Electric Corporation (non-consolidated) and affiliated companies in Japan.
 *10 These figures have been altered in accordance with the new aggregation method.

Verification Statement



The scope	The boundary	The assertion
1 Scope 1 and 2 (energy-related CO ₂ emissions) and energy consumption	Energy management units defined by the Organization (The Organization: 52 sites, Domestic group: 52 sites, Overseas group: 25 sites)	Scope 1: 114,700 t-CO ₂ Scope 2: Location base Market base: 962,175 t-CO ₂ 852,585 t-CO ₂ 150,307 t-CO ₂
2 Scope1 (HFC, PFC, SF ₆)	GHG management units defined by the Organization (The Organization: 29 sites, Domestic group: 43 sites, Overseas group: 25 sites)	8,005,948 t-CO ₂
3 Scope3 (Category 1)	The Organization, consolidated subsidiaries and equity-method affiliate defined by the Organization	31,116 t-CO ₂
4 Scope3 (Category 6)	The Organization, domestic consolidated subsidiaries and equity-method affiliate defined by the Organization	30,175 t-CO ₂
5 Scope3 (Category 7)	The Organization, consolidated subsidiaries and equity-method affiliate defined by the Organization	35,866,396 t-CO ₂
6 Scope3 (Category 11)	18 product groups contributing to the environment defined by the Organization	Water consumption: 10,998 thousand m ³ Water discharge: 8,617 thousand m ³
7 Water consumption and discharge	Water management units defined by the Organization (The Organization: 30 sites, Domestic group: 43 sites, Overseas group: 24 sites)	

The period subject to report

The scope No. 1 and from No.3 to No.7	From 1 April 2019 to 31 March 2020
The scope No. 2	From 1 January 2019 to 31 December 2019

Results of Recovery and Recycling of End of Life Products

Results of Recovery and Recycling of Four Categories of Home Appliances (FY 2020)

	Units	Air conditioners	Televisions		Refrigerators/Freezers	Washing machines/Tumble dryers	Total
			CRT	LCD/Plasma			
From collection points	1,000 units	465	72	80	444	157	1,220
Units processed	1,000 units	457	71	76	429	157	1,191
Weight of materials processed	Tons	18,721	1,605	1,354	25,588	6,059	53,329
Weight recycled in products	Tons	17,655	1,189	1,178	20,605	5,669	46,299
Recycling ratio	%	94	74	87	80	93	—

Results of Recovery and Recycling of End-of-Life Business and Home Computers (FY 2020)

	Units	Desktops		Notebooks		CRT Displays*		LCD Displays		Total	
		Office	Home	Office	Home	Office	Home	Office	Home		
Weight recovered	Tons	0.4		0.05		20		30		50	
		Office	Home	Office	Home	Office	Home	Office	Home	Office	Home
		0.3	0.1	0.03	0.01	2.3	18	2.8	27	5.5	45
Units recovered	Units	41		18		947		4,960		5,966	
		Office	Home	Office	Home	Office	Home	Office	Home	Office	Home
		29	12	13	5	110	837	468	4,492	620	5,346
Weight processed	Tons	0.4		0.05		20		30		50	
Weight recycled	Tons	0.3		0.03		14		26		40	
Recycling ratio	%	83		62		68		87		—	

* Including all-in-one computers.

Environmental Accounting

Environmental Conservation Costs

Unit: 100 million yen

	FY 2020		FY 2019		FY 2018		Main Costs
	Capital Investment	Costs	Capital Investment	Costs	Capital Investment	Costs	
Business area activities	53	72	57	76	56	78	
Pollution prevention	1.8	14	2.9	16	2.6	15	Updating of processing facilities for emissions, sewage water, deodorization, etc.
Global environmental conservation	47	30	51	29	50	27	Updating of air conditioning equipment, switch to low fuel-consumption vehicles
Resource recycling	4.3	28	2.6	31	3.1	36	Consignment of the disposal of waste, construction of additional recycling facilities
Upstream and downstream production	0.1	2.1	0.0	2.1	0	1.6	Sewage expenses, reduction of the environmental impact of packaging
Management activities	1.0	33	1.6	34	1.3	34	Personnel expenses, employee education
R&D activities	2.3	84	1.0	62	3.8	65	Improvement of energy/resources efficiency, designs to reduce size and weight
Community activities	0.0	1.1	0.0	0.3	0.0	0.3	Outdoor classrooms, Satoyama woodland preservation activities, cleaning activities outside company premises, greening activities
Environmental damage countermeasures	0.2	0.3	0.0	0.5	0.0	2.8	Purification of contaminated soil/groundwater, measuring contamination levels
Total	57	192	60	175	61	182	

Environmental Conservation Benefits

Unit: 100 million yen

	FY 2020	FY 2019	FY 2018	Main Costs
Earnings	35	37	35	Profit on sale of valuable materials (mainly metals)
Savings	9.8	11	10	Results of energy savings, reuse of materials/water, and introduction of equipment to reduce the input of resources
Total	45	48	46	

Economic Benefits from Environmental Consideration in Products and Services (Estimated Benefits)

Unit: 100 million yen

FY 2020	FY 2019	FY 2018	Main Costs
12,001	10,618	9,307	Reduction of electricity bills as the result of improved energy efficiency of products*

* Only final products are subject to this calculation among the products included in the "Calculation for Contribution to Reducing CO₂ from Product Usage," excluding interim products. Electricity rates are based on prices published in the Agency for Natural Resources and Energy's "Japan's Energy (2019 Edition)."

Fiscal 2020 Awards

Award	Sponsor	Accomplishment/Product	Recipient Company (Site)
Fiscal 2019 New Energy Award, Director-General of the Agency for Natural Resources and Energy Prize	New Energy Foundation	Oki Hybrid Project: First concerted effort in Japan by an entire region to expand the introduction of renewable energy using the latest technologies	Mitsubishi Electric Corporation, others
Fiscal 2019 New Energy Award, New Energy Foundation Chairperson's Prize	New Energy Foundation	Introduction of large-scale storage cells with measures implemented to alleviate short-wave output irregularity	Mitsubishi Electric Corporation
29th Annual Global Environment Awards, Fujisankei Group Prize	Fujisankei Communications Group	Contribution to global environmental conservation activities through observation technologies from outer space	Mitsubishi Electric Corporation
Fiscal 2019 Energy Conservation Grand Prize, Chairman Prize of ECCJ in the Product and Business Model Category	Energy Conservation Center	FZ Series Kirigamine air conditioners with new air flow control	Mitsubishi Electric Corporation
Fiscal 2019 Energy Conservation Grand Prize, Chairman Prize of ECCJ in the Product and Business Model Category	Energy Conservation Center	GT Series high-ceiling lighting, including special environmental use	Mitsubishi Electric Lighting Corporation
46th Environmental Award, Excellence Prize	Organizer: National Institute for Environmental Studies, Nikkan Kogyo Shimbun, Ltd. Sponsor: Ministry of the Environment	Improvement in energy efficiency of motors through innovation of manufacturing technologies	Mitsubishi Electric Corporation
75th IEEJ Award, Progress Prize	The Institute of Electrical Engineers of Japan	Development and commercialization of cadmium-free electromagnetic switchgear	Mitsubishi Electric Corporation
Fiscal 2020 Sanda City Certification of Excellence for business sites in promotion of waste reduction/recycling	Sanda city	Appropriate processing of waste and conformance with certification criteria in the categories of "waste generation control," "reuse," "recycling," and "education, etc."	Mitsubishi Electric Corporation
Fiscal 2019 Nationwide Invention Commendation, Invention Award	Japan Institute of Invention and Innovation	Invention of a switching element drive circuit for electric power systems using two pulses (Patent No. 4382312)	Mitsubishi Electric Corporation
68th Commendation for Remarkable Achievement, Excellence Prize in the Heavy Machinery Category	Japan Machinery Federation	Development of a thin inspection robot for power generators that contribute to improvement in the utilization ratio of power generators	Mitsubishi Electric Corporation
64th (Fiscal 2019) Shibusawa Eiichi Prize	The Japan Electric Association	Development of a new power factor improvement equipment for high-voltage users	Mitsubishi Electric Corporation, others
		Development of a breaker	Mitsubishi Electric Corporation, Mitsubishi Electric Engineering Co., Ltd.
		Development of a PV-EV linkage power conditioner	Mitsubishi Electric Corporation
		Development of direct current switchgear	Mitsubishi Electric Corporation
Eco Action 21 (Certificate of Appreciation)	Eco Action 21 Regional Bureau	Certification and registration for 10 consecutive years	Mitsubishi Electric Control Panel Corporation
Commendation by the chairman in commemoration of the 30th anniversary of the foundation of KPASHM	Kumamoto Prefecture Association of Safety of Hazardous Materials	Contribution to disaster prevention by active safety management efforts at hazardous material facilities	Melco Display Technology Inc.
Green Curtain Contest, First Prize	Isahaya City, Nagasaki Prefecture	Green curtains using the bitter melon plant	Melco Advanced Device Corporation

Comparison of Guidelines

GRI Standards In this report, only the "300: Environment" section is referenced.

Topics	Requirements	Reference Page (s)	Contents
Materials			
301-1	Materials used by weight or volume	P.39-40	Material Balance
301-2	Recycled input materials used	—	Data difficult to obtain
301-3	Reclaimed products and their packaging materials	—	Data difficult to obtain
Energy			
302-1	Energy consumption within the organization	P.39-40	Material Balance
302-2	Energy consumption outside of the organization	P.39-40	Material Balance
302-3	Energy intensity	—	—
302-4	Reduction of energy consumption	—	Data difficult to obtain
302-5	Reductions in energy requirements of products and services	—	Data difficult to obtain
Water and Effluents			
303-1	Interactions with water as a shared resource	P.25-26	Using Water Effectively
303-2	Management of water discharge-related impacts	P.25-26	Using Water Effectively
303-3	Water withdrawal	P.25-26	Using Water Effectively
		P.39-40	Material Balance
303-4	Water discharge	P.41	Amount of Water Intake/Drainage/Reuse
		P.25-26	Using Water Effectively
		P.39-40	Material Balance
303-5	Water consumption	P.41	Amount of Water Intake/Drainage/Reuse
		P.25-26	Using Water Effectively
		P.39-40	Material Balance
303-5	Water consumption	P.41	Amount of Water Intake/Drainage/Reuse
		P.41	Amount of Water Intake/Drainage/Reuse
Biodiversity			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	—	Not applicable
304-2	Significant impacts of activities, products, and services on biodiversity	—	The Mitsubishi Electric Group conducts no mining, cultivation or manufacturing of raw materials, and does not destroy woodlands or eco-systems. There has been not large impact due to production bases identified, neither in scale nor frequency.
304-3	Habitats protected or restored	Website	Preserving biodiversity at business sites (in Japanese only)
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Website	Living Creatures Research Report (in Japanese only)
Emissions			
305-1	Direct (Scope 1) GHG emissions	P.41	Reducing Greenhouse Gases Emitted in the Value Chain
305-2	Energy indirect (Scope 2) GHG emissions	P.41	Reducing Greenhouse Gases Emitted in the Value Chain
305-3	Other indirect (Scope 3) GHG emissions	P.41	Reducing Greenhouse Gases Emitted in the Value Chain
305-4	GHG emissions intensity	—	Not calculated as of this time
305-5	Reduction of GHG emissions	P.22	Reducing CO ₂ from Production
305-6	Emissions of ozone-depleting substances (ODS)	P.39-40	Material Balance
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	P.39-40	Material Balance
Effluents and Waste			
306-1	Water discharge by quality and destination	P.25-26	Using Water Effectively
		P.39-40	Material Balance
		P.24	Effective Utilization of Resources
306-2	Waste by type and disposal method	P.39-40	Material Balance
		P.15	Preventing Environmental Incidents
306-3	Significant spills	None	None
306-4	Transport of hazardous waste	P.24	Effective Utilization of Resources
		P.39-40	Material Balance
306-5	Water bodies affected by water discharges and/or runoff	—	Data difficult to obtain
Environmental Compliance			
307-1	Non-compliance with environmental laws and regulations	—	None
Supplier Environmental Assessment			
308-1	New suppliers that were screened using environmental criteria	—	Restricted by confidentiality obligations
308-2	Negative environmental impacts in the supply chain and actions taken	—	Mitsubishi Electric Corporation is committed to reducing environmental risk by recognizing suppliers who have met specific criteria in terms of environmental management system certifications acquired, the compliance of laws and regulations and other conditions.

TCFD Recommended Disclosures

Governance: Disclose the organization's governance around climate-related risks and opportunities.		
a) Describe the board's oversight of climate-related risks and opportunities.	P.11	Management System
b) Describe management's role in assessing and managing climate-related risks and opportunities.	P.11	Management System
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.		
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	P.9	Climate-Related Risks and Responses by the Mitsubishi Electric Group
b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.	P.10	Examples of Climate-Related Opportunities and Initiatives by the Mitsubishi Electric Group
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	P.8	Strategy
Risk Management: Disclose how the organization identifies, assesses, and manages climate-related risks.		
a) Describe the organization's processes for identifying and assessing climate-related risks.	P.11	Identifying, Evaluating, and Managing Risks and Opportunities and Incorporating Them into Business Activities
b) Describe the organization's processes for managing climate-related risks.	P.11	Identifying, Evaluating, and Managing Risks and Opportunities and Incorporating Them into Business Activities
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	P.11	Identifying, Evaluating, and Managing Risks and Opportunities and Incorporating Them into Business Activities
Metrics and Targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.		
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	P.9	Overview of Risk and Opportunity Assessment through Scenario Analysis
b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	P.41	Reducing Greenhouse Gases Emitted in the Value Chain
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	P.12	Climate Change Indicators and Goals
	P.39	Environmental Data

Japan MOE Guideline

Item to Be Reported	Reference Page (s)	Contents
1. Basic information of environmental reporting		
1. Basic requirements for environmental reporting		
Boundary of the reporting entity	P.1	About This Report
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Company Profile

Profile

Our Purpose is “We, the Mitsubishi Electric Group, will contribute to the realization of a vibrant and sustainable society through continuous technological innovation and ceaseless creativity.” The Group’s businesses center around the manufacture and sales of energy and electric systems, industrial automation systems, information and communication systems, electronic devices, and home appliances.

Corporate Data (as of March 31, 2020)

Company Name: Mitsubishi Electric Corporation
Head Office Location: Tokyo Building, 2-7-3, Marunouchi, Chiyoda-ku, Tokyo 100-8310, Japan
Established: January 15, 1921
Paid-in Capital: ¥175,820 million
Shares Issued: 2,147,201,551 shares
President & CEO: Takeshi Sugiyama

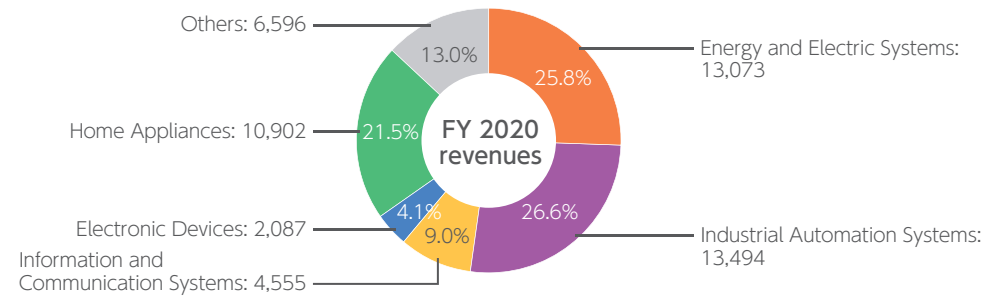
Main Businesses/Products

Energy and Electric Systems	Turbine generators, hydraulic turbine generators, nuclear power plant equipment, motors, transformers, power electronics equipment, circuit breakers, gas insulated switchgears, switch control devices, surveillance-system control and security systems, transmission and distribution ICT systems, large display devices, electrical equipment for locomotives and rolling stock, elevators, escalators, building security systems, building management systems and others
Industrial Automation Systems	Programmable logic controllers, inverters, servomotors, human-machine interface, motors, hoists, magnetic switches, no-fuse circuit breakers, short-circuit breakers, transformers for electricity distribution, time and power meters, uninterruptible power supply, industrial fans, computerized numerical controllers, electrical discharge machines, laser processing machines, industrial robots, clutches, automotive electrical equipment, electric powertrain systems, car electronics and car mechatronics, car multimedia, and others
Information and Communication Systems	Wireless and wired communications systems, network camera systems, satellite communications equipment, satellites, radar equipment, antennas, missile systems, fire control systems, broadcasting equipment, data transmission devices, network security systems, information systems equipment, systems integration, and others
Electronic Devices	Power modules, high-frequency devices, optical devices, LCD devices, and others
Home Appliances	Room air conditioners, package air conditioners, chillers, showcases, compressors, refrigeration units, air-to-water heat pump boilers, ventilators, hot water supply systems, IH cooking heaters, LED lamps, indoor lighting, LCD televisions, refrigerators, electric fans, dehumidifiers, air purifiers, cleaners, jar rice cookers, microwave ovens, and others
Others	Procurement, logistics, real estate, advertising, finance, and other services

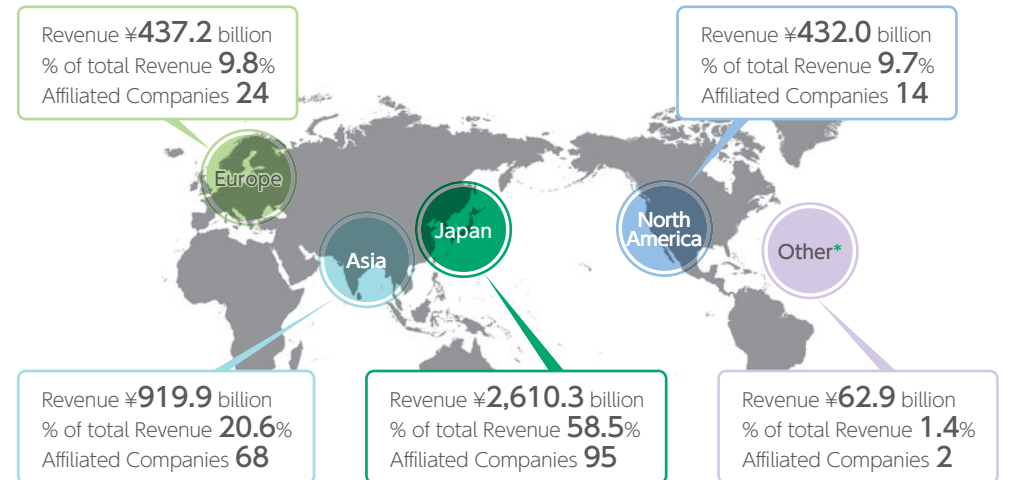
Data

Consolidated Revenue	Net Profit Attributable to Mitsubishi Electric Corp. Stockholders	Number of Employees (Consolidated)
¥4,462.5 billion	¥ 221.8 billion	146,518

Revenue breakdown by business segment (100 million yen)



Global Operations



* Oceania, Central and South America, and Africa

Environment

<https://www.MitsubishiElectric.com/en/sustainability/environment/index.html>



Environmental Report 2020

<https://www.MitsubishiElectric.com/en/sustainability/environment/report/index.html>



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



mitsubishi electric corporation

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