

Hitachi Global Life Solutions Environmental Report 2019



We aspire to become a lifestyle solutions company that raises the QoL of people around the world, by solving the challenges of their everyday lives.

We are all surrounded by a mountain of global-scale challenges in need of urgent solutions, beginning with the climate change of recent years, but also including the pollution of marine environments, and the growth of energy consumption that accompanies surging population growth. If we are to realize a sustainable society in an age of VUCA (Volatility, Uncertainty, Complexity, Ambiguity), in which it is difficult to predict aspects such as social and economic conditions, each country and company must urgently share the global challenges represented by the SDGs, and work towards solutions with a sense of crisis.

Hitachi Group strives to resolve the issues that society faces, through our social innovation business. In the Medium-term Management Plan 2021 which we announced in May 2019, we state our goal of achieving a sustainable world while simultaneously improving social value, environmental value, and economic value.

Hitachi Global Life Solutions was founded on April 1, 2019, through the merger of a previous home electric appliance manufacturer and a distributor of home electric appliances and air conditioning equipment. The new company works on innovative life solutions through the manufacturing and distribution of home electric appliances, lighting, and home services equipment, and the distribution of refrigeration equipment. As a member of the Hitachi Group which combines strengths in OT, IT, and products, we provide products of high energy-saving performance and high added value functions,

and the IoT appliances and related services which make life more convenient and affluent. Through these operations, we will raise people's Quality of Life (QoL).

Shifting to an organization which integrates manufacturing and distribution has enabled us to further strengthen our actions for environmental load reduction throughout the value chain, which runs through the stages of procurement, manufacturing, distribution, repair, and disposal and recycling.

Hitachi Global Life Solutions Group also includes factories for recycling four kinds of home appliances (air conditioners, TVs, refrigerators and freezers, and washing machines and clothes dryers), where we process over 700,000 end of life home appliances per year. We are also working to improve resource circulation by raising recycling rates and making effective use of resources.

In providing customers around the world with environment-conscious products and services of high energy-saving performance and high added value functions, the Group gives concrete form to its Corporate Credo of "contribute to society through the development of superior, original technology and products."

By delivering the three value types, social, environmental, and economic, we aim to become a "life solutions company" that creates a sustainable world going forward.



Jun Taniguchi
President and Director

J. Taniguchi

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Hitachi Group's Approach to Sustainability

In 2015, the United Nations adopted 17 Sustainable Development Goals (SDGs) to be achieved by 2030, such as eradicating poverty, reducing inequalities, and taking climate action. The SDGs are not just expectations but a concrete action plan requesting the cooperation of a wide range of governments, communities, and businesses throughout the world, in an attempt to achieve prosperity for humankind and the earth.

The world today expects corporations to establish a framework with a long-term outlook on achieving the SDGs and building an even better world, thereby positively promoting sustainability.

The Hitachi Group covers a wide range of industries and is able to help achieve various aspects of the SDGs. In fiscal 2017, the Group's Sustainability Strategic Conference, chaired by Representative Executive Officer, President and CEO Toshiaki Higashihara, studied the 17 SDGs and the possible risks and opportunities regarding the relevant business, and then identified five SDGs that the Hitachi Group could greatly help to achieve through its business strategy.

The Group also identified six SDGs as the goals that it should help to achieve through all its corporate activities. We consider these six goals as being related to all

business and managerial strategies of the Hitachi Group, and which will affect its long-term corporate sustainability.



Hitachi Group's long-term environmental targets – "Hitachi Environmental Innovation 2050"

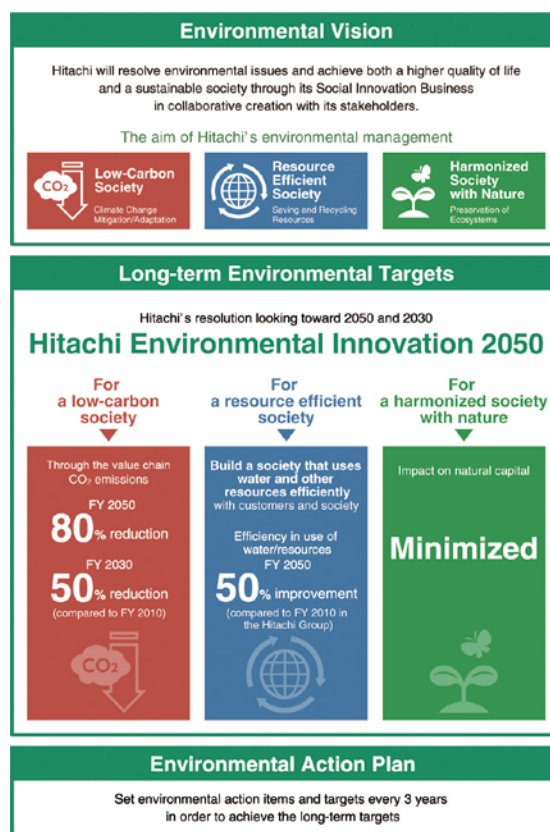
The Hitachi Group has formulated its Environmental Vision, and announced its "Hitachi Environmental Innovation 2050" in September 2016, to present concrete goals for realizing that vision.

In Hitachi Environmental Innovation 2050, our goal of reducing CO₂ emissions, designed to create a low-carbon society, was set to fulfill the goals of the Paris Agreement. To achieve this goal through its value chain, the Hitachi Group is committed to reducing emissions in the use stage, which accounts for a large percentage of the emissions. We are also promoting the reduction of emissions in the production stage of Hitachi Group's business activities.

Working towards realizing a resource efficient society, we are promoting the efficient use of water and other natural resources used by the Hitachi Group. To achieve that goal, we will continue to practice the manufacture of durable goods made with resource efficiency, thorough product recycling, and reduced water consumption in production processes.

Toward realizing a society harmonized with nature, we promote actions to minimize our burden on ecosystems in each stage of the value chain. Other than providing products and services for that purpose, we are stepping up our efforts to minimize our environmental loads in factories and offices.

In tandem with the Medium-term Management Plan 2021 announced in May 2019, we have also newly formulated our Environmental Action Plan 2021 (fiscal 2019 to 2021), which is a three-year plan for our environmental activities.



* CO₂ emission reduction targets in "Hitachi Environmental Innovation 2050" are stated as absolute quantities.

Identification of SDGs, and contribution to their attainment

The SDGs aim to realize a sustainable society and improve people's Quality of Life by solving challenges related to society and the environment.

Hitachi Global Life Solutions Group was founded in April 2019 through the merger of a previous home electric appliance manufacturer and a distributor of home electric appliances and air conditioning equipment. We are working to achieve Quality of Life improvements by advancing our life innovation business, which solves life challenges. After our shift to a new organization that integrates manufacturing and distribution, we re-analyzed how the change in our business activities, throughout the value chain, impacted the SDGs, and what we can do to contribute, and we reconsidered the mapping of our operations to the SDGs.

More specifically, we performed the mapping by cross-referencing our business activities against the 17 goals and 169 targets of the SDGs, and redefined the goals in which we can contribute by reinforcing positive impacts and minimizing

negative ones in the whole range of our corporate activities.

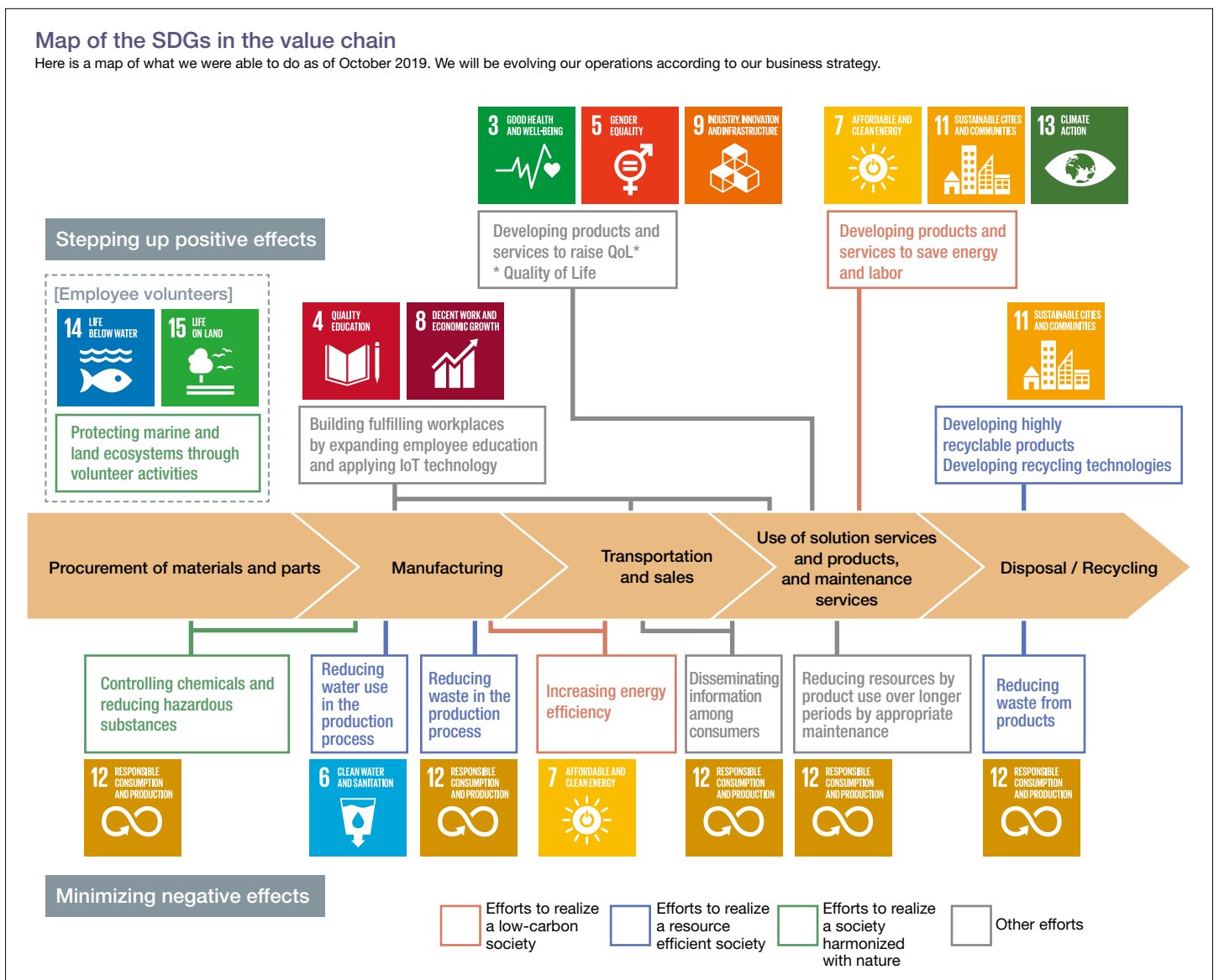
Most of the re-mapped goals (see "Map of the SDGs in the value chain" below) are also the goals which can help to solve global warming and resource depletion, which are both environmental issues that demand solutions.

As such, we believe that we can contribute to the realization of a sustainable society through environmental conservation activities.

Therefore, we will continue working to improve the energy-saving performance of our products and raise the efficiency of our production processes, to cut environmental loads.

Moreover, we will continue to study how we can achieve SDGs other than those identified above.

In addition to efforts such as these, we have set the reinforcement of our service business as part of our business strategy in 2019, and we will be working to create new economic, social, and environmental value by providing innovative solutions and products.



Reducing the environmental burden of the entire value chain is the key to achieving the SDGs. Even within that effort, the Group recognizes improving the energy-saving performance of its and those efforts are covered in this report.

» Environmental Management

We acquire certification under ISO 14001 at specific production centers in order to monitor the environmental our Environmental Vision.

We have also established a global environmental control system to assess our environmental activities in

Environmental Conservation Guidelines

The Group has set its Environmental Conservation Guidelines, to present our policies for environmental conservation efforts concerning industrial activities. The Environmental Conservation Guidelines are based on the Conduct Guidelines of the Hitachi Group as its basic philosophy, and consist of 10 items.

The Group considers that one of its top priorities in management is to realize a sustainable society harmonized with the environment under these guidelines, and accordingly has been tackling various environmental actions.

Environmental Conservation Guidelines (excerpt)

Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, we are promoting global "MONOZUKURI," which is aimed at reducing environmental loads of our products throughout their entire lifecycles, and striving for global environmental conservation, to make our contribution to society.

Action Guidelines

1. Global environmental conservation is a critical challenge shared by all humans. We have set management to realize an environmentally harmonious and sustainable society as one of our management priorities, for fulfilling our social contribution.



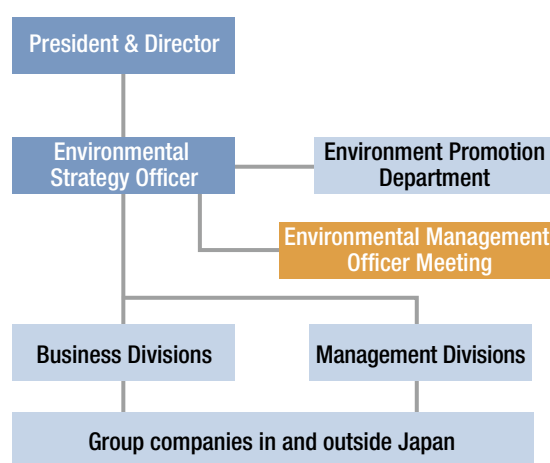
The full text of the Environmental Conservation Guidelines is presented on our website (Japanese language only).
<https://www.hitachi-gls.co.jp/about/environment/management/action-guidelines.html>

Promotion system for environmental management

Our Environmental Policy and Environmental Action Plan are considered and determined at an Environmental Management Officer Meeting of Environment Promotion Department and Environmental Management Officers from both domestic and overseas manufacturing sites under the supervision of the Environmental Strategy Officer, who supervises the entire group. Based on decisions made at this meeting, the Environment Promotion Department collaborates with both Business Divisions and Management Divisions to promote environmental conservation activities.

We at the Group also improve our operations and environmental efforts, and prevent environmental issues by conducting environmental internal audits of our domestic and overseas production centers (three domestic works and three overseas group member companies) every year.

Promotion system




and the goals of “Hitachi Environmental Innovation 2050.” products and the efficiency of its production processes as important challenges,

burden of our industrial activities and steadily implement the PDCA cycle to reduce it, thereby aiming to fulfill detail.






Environmental Action Plan

The Group establishes a concrete Action Plan every three years to achieve its Environmental Vision. In fiscal 2018, the last year of Environmental Action Plan 2018, we pressed ahead with activities towards goal attainment. In fiscal 2019, we formulated a three-year “Environmental Action Plan 2021”

to work through until fiscal 2021, towards attaining the goals of our Hitachi Environmental Innovation 2050. We will advance our environmental activities under this plan for the three years until fiscal 2021.

 Details are presented on our website (Japanese language only). <https://www.hitachi-gls.co.jp/about/environment/management/action-plan.html>

Main action items and targets of Environmental Action Plan 2021

	 Reduction rate in CO ₂ emissions from products and services (compared to fiscal 2010)	 Improvement rate in the CO ₂ emission per unit of the Works (compared to fiscal 2010)	 Improvement rate of water consumption per unit (from fiscal 2010)	 Improvement rate of the amount of waste and valuable materials generated per unit (from fiscal 2010)	 Improvement rate of chemical substance emissions into the atmosphere per unit (from fiscal 2010)
Fiscal 2019 targets	23.0% reduction rate	10.7% improvement rate	22.2% improvement rate	-19.8% improvement rate	-26.6% improvement rate
Fiscal 2020 targets	23.6% reduction rate	12.3% improvement rate	22.9% improvement rate	-18.3% improvement rate	-18.3% improvement rate
Fiscal 2021 targets	24.1% reduction rate	13.8% improvement rate	23.8% improvement rate	-17.1% improvement rate	-18.1% improvement rate

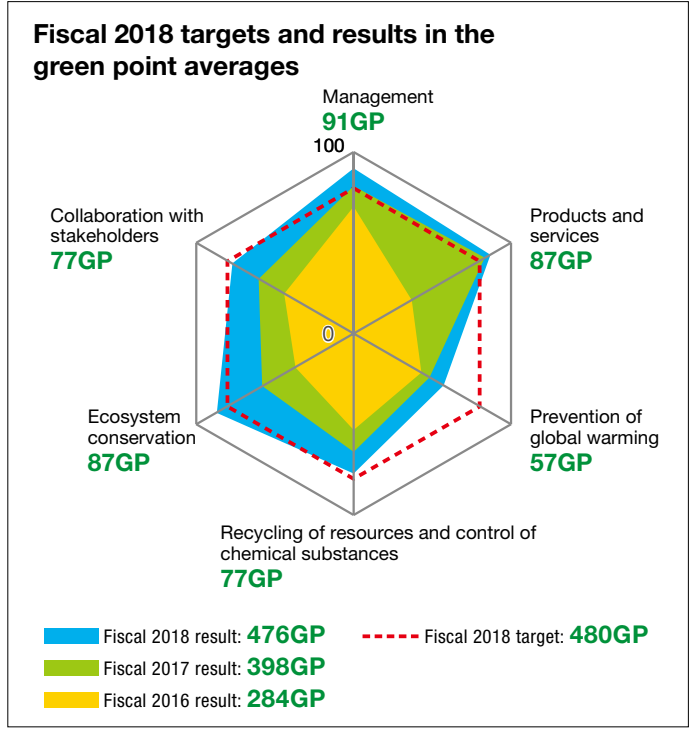
Improving and reactivating activities by means of the assessment program for environmental activities

The Hitachi Group improves its environmental activities by using its original GREEN21 assessment program for evaluating major manufacturing sites according to a certain set of standards.

GREEN21 assesses each assessment item by means of five grades on a scale of 100 green points (GP) for each item. Environmental activities are evaluated on a scale of 600 GP in total. The assessment results are visualized on a radar chart to reconfirm the strengths and weaknesses of each item, and linking them for further improvement and activity reactivation.

The overall GREEN21 assessment for fiscal 2018 scored 476 GP, falling short of the target of 480 GP. Looking at the attainment status of each item, three of the six items fell short of targets, with a particularly major shortfall in Prevention of global warming, which scored 57 GP against a target of 80 GP. One cause was our inability to reach the Environmental Action Plan target for the improvement rate of energy consumption per unit.

From fiscal 2019, there will be a new assessment system in line with Environmental Action Plan 2021, and we are continuing to step up our activities towards goal attainment.



» Efforts to Realize a Low-carbon Society

Reduction in energy consumption is vitally important for cutting the greenhouse gases, such as CO₂ (carbon). The Group is working to reduce energy used at the product usage stage, by providing customers with products

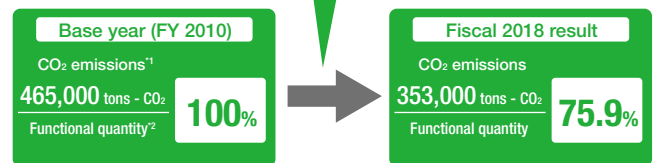
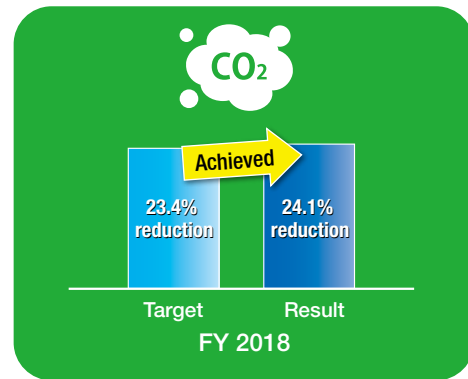
Improving the environmental performance of products

The Group aims to contribute to solving environmental issues by developing and spreading environment-conscious products. One of our actions to that end is to raise the environmental performance of products, such as by enhancing their energy-saving performance.

In developing products, we work to achieve functional improvement and environmental load reduction in tandem, so our assessment method uses "reduction rate in CO₂ emission in use, per function" for the volume of refrigerators and the wash load of washing machines, etc., as an indicator. The assessment subjects are refrigerators, washing machines, LED lighting, and heat pump water heaters, which provide high levels of contribution to the suppression of CO₂ emissions (power consumption) in use. Other than reduction of power consumption in use, we also assess functional improvements, such as internal volume and wash load, as energy-saving performance.

We are also working to cut CO₂ emissions by expanding sales of products with high energy-saving performance. In fiscal 2018, we achieved a 24.1% reduction, against a reduction target of 23.4%, compared to fiscal 2010.

CO₂ emission reduction rates (compared to fiscal 2010) in the four product types with high CO₂ emission suppression (refrigerators, washing machines, LED lighting, and heat pump water heaters).



*1: CO₂ emissions based on the assumption that a required number of units were used to obtain a functional quantity comparable to that of products from the assessment fiscal year.
*2: Among the main functions of products, the function correlated with CO₂ emissions.

An example of efforts to improve the environmental performance of products

Development of refrigerators combining energy conservation with large capacity

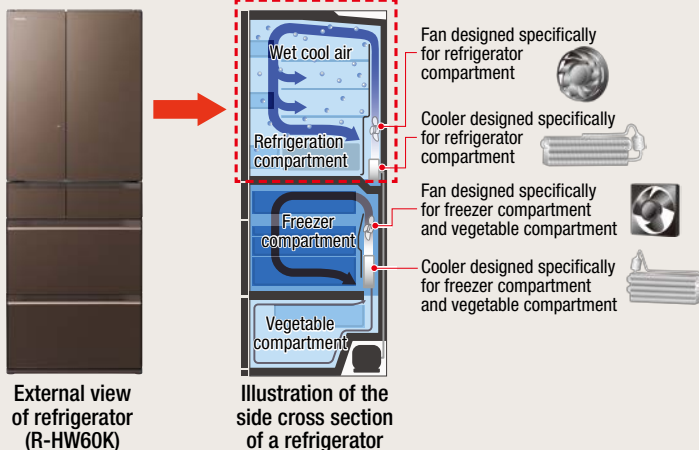
Energy conservation by means of an independent cooling system for the refrigeration compartment

Two coolers and two fans are provided—one of each for the refrigeration compartment and one of each for the freezer and vegetable compartments. An independent refrigeration compartment makes it possible to raise the temperature of the refrigerator compartment's dedicated cooler, thereby reducing energy consumption.

Larger capacity with thin-wall design

The combination of highly fluid foamed urethane with a highly heat-insulating vacuum insulation material means the walls can be made even thinner, while retaining their heat-insulating performance and ensuring a larger capacity.

Independent cooling system for the refrigerator compartment



Vacuum heat-insulating material

* Vacuum heat-insulating material is used at different locations and comes in different shapes and quantities depending on the model.

dioxide), which cause global warming. of higher energy-saving performance. We are also working to reduce energy use in production processes.

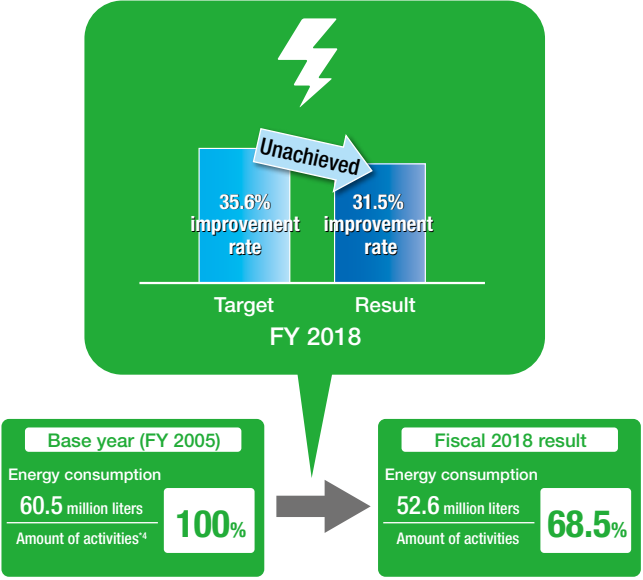
Reducing energy use in the production process

Energy consumption in corporate activities is one emission source of carbon dioxide (CO₂) and other greenhouse gases that cause global warming. The Group also uses energy when producing products. It therefore promotes the efficient use of energy consumed in its production activities. More specifically, the Group uses energy consumption per unit³ as an indicator and has been working towards a target of improving it by 35.6% by fiscal 2018 from the level in fiscal 2005.

In fiscal 2018, the latest year, the improvement rate of energy consumption per unit was 31.5%, falling short of the target. The main causes of the worsening per unit are the increase in energy consumption due to transition to internal production of components, the increase in testing equipment etc., and reduced production quantities at some manufacturing sites.

From fiscal 2019, we are using as an indicator CO₂ emission per unit, for which we convert energy consumption to CO₂ equivalent, in line with the "Hitachi Long-term Environmental Goals." We are pushing ahead with activities towards a target 10.7% improvement rate compared to fiscal 2010.

Improvement rate of energy consumption per unit (from fiscal 2005)



³: Quotient of energy consumption in its crude oil equivalents divided by the amount of activities.
⁴: A value linked closely to energy consumption (such as production and quantity produced).

Examples of action to cut CO₂ through the use of natural energy

Introduction of solar power generation systems

The Group company Kantou Eco Recycle Co. Ltd., located on the grounds of our Tochigi Works, is a recycling factory for products subject to the Home Appliance Recycling Law. Kantou Eco Recycle Co. Ltd. installed a solar power generation systems in January 2019.

The system generates 388,970 kWh of power per year, which is equivalent to the power consumption for lighting and air conditioning in the factory. That cut annual CO₂ emissions by approximately 780 tons. The company is now considering expanding the installation to building roofs which are not currently used by the solar power system.

We will continue to reduce our power usage, by using renewable energy and installing recycling equipment of high energy-saving performance, in order to actively cut our CO₂ emissions.



Solar panels installed on the factory roof

» Efforts to Realize a Resource Efficient Society

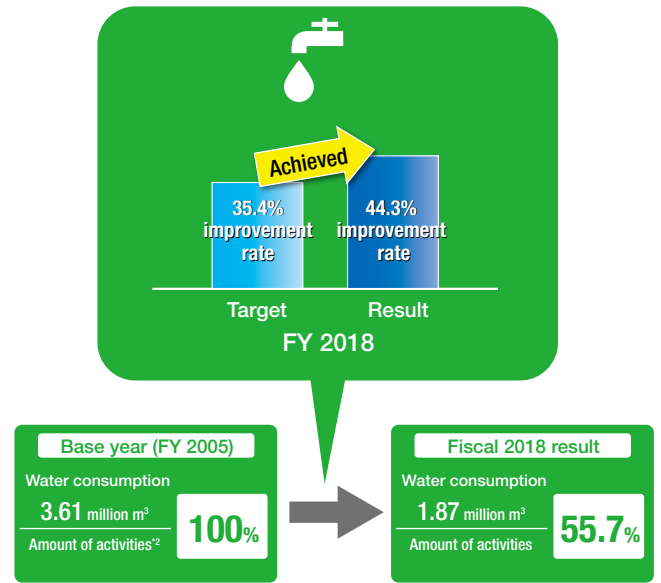
To address environmental issues such as resource depletion, waste problems, and water shortage, the reduction of waste products from production processes, and reduction of water usage in production

Reducing water consumption in the production process

The Group uses water in its product testing, equipment cooling, painting, and other production processes. Water resources are faced with a shortage of household and agricultural water due to population growth, ground subsidence stemming from the pumping-up of underground water, and other issues involving various aspects. To help settle these issues, the Group has been promoting a decline in water consumption as one unit. As an activity target, we are working to improve water consumption per unit^{*1}, towards the goal of a 35.4% improvement in fiscal 2018, compared to fiscal 2005.

In fiscal 2018, the last year of the Environmental Action Plan 2018, we achieved a 44.3% improvement rate in water consumption per unit, attaining the goal. The main measures were repair of water leaks in pipes, use of visualization to strengthen management of water consumption, and the reuse of waste water in painting processes. From fiscal 2019, we have changed the reference year to fiscal 2010 in line with the "Hitachi Long-term Environmental Goals," and we are working on further improvements.

Improvement rate of water consumption per unit (from fiscal 2005)



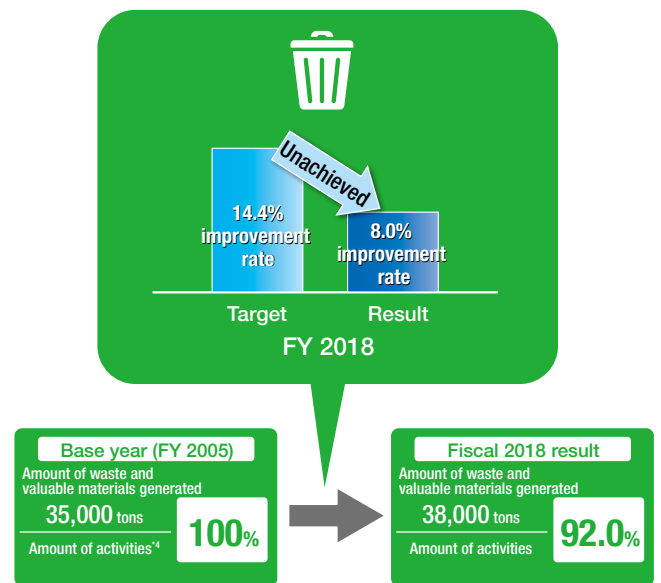
*1: Quotient of water consumption divided by amount of activities
 *2: A value linked closely to water consumption (such as production and quantity produced)

Reducing waste in the production process

Resource issues due to economic development and population growth are common worldwide, and actions are being demanded to control the mass consumption of resources and the large quantities of waste. Even within the Group, the manufacturing of products generates waste materials, as well as unwanted but salable materials (valuables), so we are working to suppress the production of such materials. As an activity target, we are working to improve the amount of waste and valuable materials generated per unit^{*3}, towards the goal of a 14.4% improvement in fiscal 2018, compared to fiscal 2005.

In fiscal 2018, the last year of the Environmental Action Plan 2018, we achieved an 8.0% improvement rate of the amount of waste and valuable materials generated per unit, falling short of the goal. The main causes of the worsening per unit are the increase in waste and valuable materials generation due to declining yields at some Works, reduced production volumes, and other factors. From fiscal 2019, we changed the reference year to fiscal 2010, in the same way as for water consumption, and we have been working towards newly-set goals.

Improvement rate of the amount of waste and valuable materials generated per unit (from fiscal 2005)



*3: Quotient of the amount of waste and valuable materials divided by the amount of activities.
 *4: A value linked closely to the amount of waste and valuable materials (such as production and quantity produced).

Group is promoting thorough product recycling, resource-saving Monozukuri, processes, as it works to improve the efficiency with which it uses water and resources.

Promoting product recycling

The Home Appliance Recycling Law, which was enacted in 2001 to encourage waste reduction and the effective use of resources, mandates that manufacturers recycle end-of-life home appliances which they manufactured in four product categories (room air conditioners, TVs, refrigerators and freezers, and washing machines and clothes dryers). The Law also sets recycling rate⁵ standards for each product and mandates manufacturers to attain recycling rates above the standards.

The Group established Kantou Eco Recycle Co. Ltd. in 1999 to comply with the Law. The information we gain at this factory is fed back into product design, and used to raise the recycling rate when products are recycled. Five suppliers⁶ including Hitachi Global Life Solutions in the same industry collaborate in developing recycling technology, as well as establishing and running an efficient nationwide recycling system. These efforts have raised the recycling rates for Hitachi home electric appliances which reached end-of-life in fiscal 2018 to 79% for refrigerators and freezers, 94% for washing machines and clothes dryers, 74% for CRT TVs, and 87% for LCD and plasma TVs, exceeding the legal standards in all cases.



Recycling washing machines

⁵ Within end-of-life home appliances collected by manufacturers, this is assessed according to the proportion by weight that is transferred, either free of charge or for payment, as either parts or raw materials.
 Legal standards for recycling rates: 70% for refrigerators and freezers, 82% for washing machines and clothes dryers, 55% for CRT TVs, and 74% for LCD and plasma TVs.
⁶ Sharp Corporation, Sony Corporation, Fujitsu General Limited, Mitsubishi Electric Corporation, Hitachi Global Life Solutions, Inc. (five companies in total)

Typical efforts to make effective use of resources

Using recycled plastic

We promote the use of recycled plastics as a means of resource circulation. In fiscal 2018, recycled material accounted for 15% of our polypropylene, which is the plastic we use the most of. Hitachi Appliances Techno Service, a member of the Group, processes recycled materials that use plastics from end-of-life home appliances and plastic containers etc., as raw materials. The processed recycled material is then used in its products.



Typical application of recycled plastic

Effective use of groundwater

At our Tochigi Works, we applied anti-leakage measures to the pipes and equipment used to pump up groundwater, in order to make effective use of water resources. Between fiscal 2010 and fiscal 2017, we replaced buried pipes with above-ground pipes, and in fiscal 2018, we introduced a power monitoring system to switch to automatic measurement. We visualize the volume of water used in each building, to raise awareness of saving water. These efforts cut annual water consumption by approximately 105,821m³ (approximately 16%). That is equivalent to more than 100 million one-liter PET bottles.



Water consumption visualization by the power monitoring system.

» Efforts to Realize a Society Harmonized with Nature

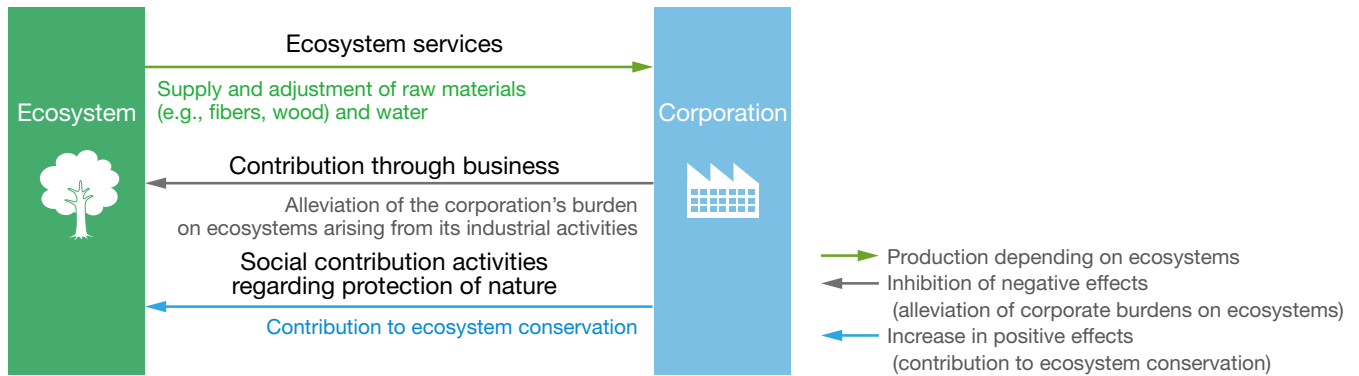
The Group affects ecosystems to a considerable extent through its business activities. As part of its which could potentially impact ecosystems. It is also committed to reducing chemical emissions in its

Relations between ecosystem conservation and corporations

Our life is based on the various benefits of nature ("ecosystem services") provided by air, water, soil, animals, plants, and other natural capital. The Group also affects ecosystems to a certain extent in all value chains, including the procurement of raw materials, product manufacturing, and use of energy for transporting materials and products. Therefore, we at the Group work to maintain and recover ecosystem services by means of contribution through business, and by social contribution activities regarding

protection of nature. Of these activities, contribution through business promotes design and production activities that alleviate a corporation's burden on ecosystems, while providing energy-saving products. We also control chemical substances properly by positioning such control as part of ecosystem conservation activities. Moreover, social contribution activities regarding protection of nature promotes ecosystem conservation, involving Group companies both in and outside Japan.

Relations between ecosystem conservation and corporations



Typical efforts to conserve ecosystems

Releasing creatures in Thailand

Hitachi Consumer Products (Thailand) gives its ongoing support to marine ecosystem conservation activities performed by NGOs, in order to contribute to the conservation of marine resources, which is one of the SDGs.

In August 2018, it released nurse sharks and flower crabs (*Portunus armatus*) at Wong Napa Beach in Mueang Chonburi District, Chonburi

Province, Thailand. The NGO organized the release with the cooperation of the Thai army, and 44 company employees participated as volunteers. They released 10 juvenile nurse sharks and 100 young flower crabs. This activity taught the participants about the importance of conserving marine resources.



The release

ecosystem conservation work, the Group practices proper management of chemical substances production processes.

Controlling chemicals contained in products

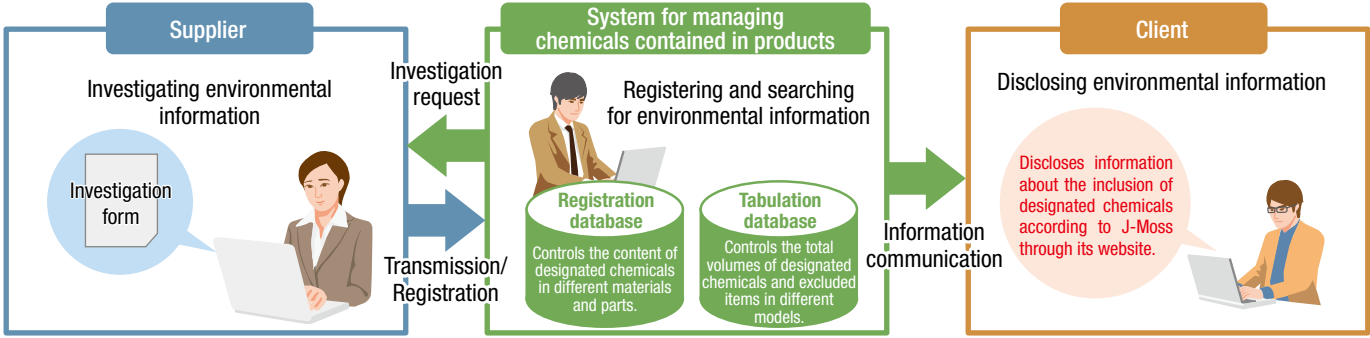
As part of its ecosystem conservation activities, the Group manages the chemicals contained in materials and parts, etc. This activity starts from the product development and design stage and extends through the procurement of materials and parts, to all stages of product manufacturing. The management of chemicals is particularly important in procurement, and our management is particularly stringent, in line with the Hitachi Group Green Procurement Guidelines, which is published by the Hitachi Group. We work in cooperation with our suppliers to investigate the content of

chemicals in the parts and materials built into products, and also the oils used in manufacturing processes, and all other purchased materials used in production.

And based on J-Moss^{*1}, the Group discloses information about the inclusion of chemicals in products to outside parties through its website.^{*2}

*1: A common designation for JIS C 0950 (Marking for the presence of specific chemical substances for electrical and electronic equipment)
 *2: For refrigerators, washing machines and clothes dryers, microwave ovens, and air conditioners

Overview of the management of chemicals contained in products



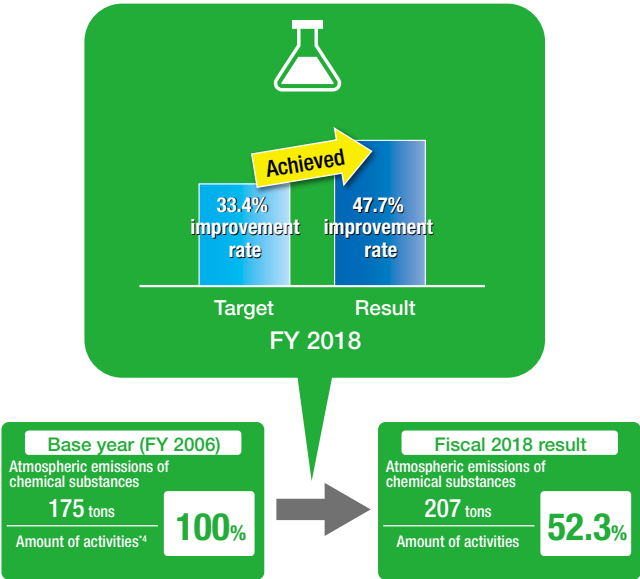
Reducing chemicals in the production process

To prevent atmospheric pollution, the Group practices proper management of chemicals, and is working to reduce emissions of Volatile Organic Compounds (VOCs), etc. from its factories. The goal for this activity, using chemical atmospheric emission per unit^{*3} as an indicator, was to achieve a 33.4% improvement in fiscal 2018, compared to fiscal 2006.

The improvement in the atmospheric emissions of chemical substances per unit in fiscal 2018 reached 47.7%, far exceeding the 33.4% target. The main improvement measure was to reduce the use of coated parts in order to cut the emission of chemicals from paints. As a result, it managed to improve the atmospheric emissions of chemical substances per unit. From fiscal 2019, we have changed the reference year to fiscal 2010, as with other indicators, and we are working on further improvement to our chemical atmospheric emission per unit.

We also keep track of emissions of sulfur oxides (SOx) and nitrogen oxides (NOx), for which measurement is mandated by laws and ordinances at the locations of our manufacturing sites, including overseas manufacturing companies. We practice proper and legally compliant management of such substances.

Improvement rate of chemical substance emissions into the atmosphere per unit (from fiscal 2006)



*3: Quotient of chemical substance emissions into the atmosphere divided by the amount of activities
 *4: A value linked closely with the atmospheric emissions of chemical substances (such as the amount of chemical substances handled and their production)

» Environmental Communication

The Group recognizes that it is important to interact with its actual and potential consumers, distributors, stakeholders. The Group conducts internal training sessions attended by outside knowledgeable people, the participation of its employees, and is involved in other such activities, that promote communication in

Employee training

In 2009, Hitachi Appliances Inc., our predecessor company, received exclusion orders under the Act against Unjustifiable Premiums and Misleading Representations concerning the content displayed in catalogs, etc. for refrigerators. This caused great concern and inconvenience to customers and other stakeholders.

To prevent itself from ever forgetting the lesson that it learned there, the Group has since been inviting outside lecturers to give seminars and symposiums to its employees every year on topics such as advertising and appropriate expressions and representation for products.

In April 2018, we invited Yukiko Furuya, representative of the Consumer Conference for Sustainability, and Kaori Kuroda,

who was then Executive Director of CSO Network Japan, to speak as lecturers on the theme of “the relationship between SDGs (Sustainable Development Goals) and representations of products.”

They explained that joint effort between companies and consumers is essential to ensure sustainable production and consumption, and that the information publicized by companies—including representations of products in advertisements, catalogs, etc.—enables consumers to make correct choices. Their talks deepened understanding of the SDGs as a whole, and of how products should be represented in service of attaining them.

Disseminating information to stakeholders

Disseminating information to stakeholders is vitally important in working towards a sustainable society. The Group discloses environmental information appropriately through environmental reporting. We also disseminate information to suppliers and customers through briefings to trading partners, sites, and other channels.

Communication activities with consumer groups

As we at the Group are engaged in distribution and service activities concerning home appliances, we practice regular communication with consumer groups.

We are entering an age in which everyone will need to take action from the perspective of the SDGs in situations closely involved with their daily lives. To build a sustainable society, we must all think about what we should be doing, and share our ideas. Therefore, in July 2018, we organized a discussion meeting on the theme of action on the SDGs, together with the staff of the Japan Association of Consumer Affairs Specialists and the Kisarazu Consumer Life Center of Kisarazu City in Chiba Prefecture. The local government of Kisarazu is particularly enthusiastic about promoting the SDGs.

As we at the Group are contributing to the SDGs on environmental aspects, our Environment Department participated in the discussion meeting and presented a variety of our activities. We introduced action for environmental

load reduction, such as the way we use the LCA (Life Cycle Assessment) perspective to calculate and assess the CO₂ emissions generated at every stage from design onwards, and design products for easy recycling, and our efforts as a company were examined. In the future, we will go on focusing our efforts on activities to inform consumers of that kind of action.



Discussion meeting in action

Disseminating information to suppliers

The Group investigates chemical contents of materials and parts, in line with the Hitachi Group Green Procurement Guidelines, which is published by the Hitachi Group, in order to manage those chemical contents. Such investigation requires the understanding and cooperation of its suppliers, so that the Group holds a briefing session for its suppliers

when necessary, thereby seeking their understanding and collaboration. In these sessions, the Group explains the latest trends in the Green Procurement Guidelines and legal regulations on chemicals in different countries, methods of analyzing chemicals included in products, and other issues.




suppliers, members of the community near its works, employees, their families, and many other disseminates information among outside parties through websites, engages in volunteering with various forms.

Disseminating information to customers

In our catalogs etc., we strive to clearly convey information on the energy-saving performance of products, so that customers can make suitable choices of energy-saving products. Specifically, we clearly state the energy saving standard attainment rates and annual power consumption for products which have high power consumption, such as refrigerators. We also explain where energy-saving technologies are used.

The Group also strives to help its customers save electric energy by presenting the points of effective energy saving that they can follow at home through its websites, where such information is summarized for each product.

 Everybody starts from what we can do to save electricity
<https://kadenfan.hitachi.co.jp/support/about/attention/setsuden.html>

Lectures to local businesses

As a member of communities and society, the Group keeps up close exchanges with local companies, through chambers of commerce and other channels.

In November 2018, the staff in charge of environmental conservation at our Tochigi Works addressed an environmental seminar organized by Ohira-machi Industrial Society in Tochigi City, speaking about the Group's energy-saving actions. There was a lively exchange of information about the use of LED lighting and various other energy-saving measures.



Symposium in action

Promoting understanding of recycling

Kantou Eco Recycle Co. Ltd. was first established as a factory with the capacity to recycle 300,000 products a year from the categories covered by the Home Appliance Recycling Law.

After the company was established, the numbers of products for processing grew year after year, and the factory's processing capacity was raised to keep pace. From 2012, the number to be processed surpassed 600,000 per year, and the home appliances being discarded were getting larger. Therefore, the company built a new building to house one of the largest crushers in any recycling plant in Japan, which began operating in January 2019.

As the added value of home appliances increases, they require increasingly complex treatment processes. Therefore,

we built a new line that effectively combines individual and production line work methods, to raise the efficiency of recycling work.

The plant is toured by around 1,000 visitors a year, including students, local residents, and local authority staff. We have equipped the new building with dedicated walkways for visitors, so that visitors can inspect the plant in greater safety and comfort. Looking from the walkways, visitors can see products being disassembled, and the processes by which crushed and powdered products are automatically sorted into separate materials, such as plastic, steel, aluminum, and copper. We use these tours to foster visitors' understanding of home appliance recycling.



The exterior of the new building



This giant crusher has 2.4 times the processing capacity of the previous equipment



A recycling line seen from the dedicated walkway for visitors

Corporate Overview

Company name	Hitachi Global Life Solutions, Inc.
Main business	Providing sales, engineering, and maintenance services for home appliances, air conditioning equipment, and other equipment, and providing products and solutions which apply digital technologies.
President and Director	Jun Taniguchi
Capital stock	20 billion yen (Hitachi, Ltd. 100%)
Established	April 1, 2019 (Registered establishment date: November 26, 1998)
Consolidated revenues	485 billion yen (for the fiscal year ended March 31, 2019)
Consolidated number of employees	Approximately 11,500 (consolidated, as of the end of March 2019)
Manufacturing sites	Tochigi Works, Taga Works, and Ome Works
Locations of sales and service sites	Sales: 73 sites, service: 106 sites (as of April 1, 2019)
Website	https://www.hitachi-gls.co.jp/

Group Companies

Domestic

- Hitachi Appliances Techno Service, Ltd.
- Niigata Hitachi Co., Ltd.
- Hitachi Air Conditioning Kyushu Co., Ltd.
- Hitachi Air Conditioning Kanto Co., Ltd.
- Hitachi Air Conditioning Kansai Co., Ltd.
- Kanto Eco Recycle Co., Ltd.

Overseas

- Shanghai Hitachi Household Appliances Co., Ltd.
- Hitachi Consumer Products (Thailand), Ltd.
- Hitachi Sales Corporation of Taiwan
- Hitachi Sales (Thailand), Ltd.
- Hitachi Home Electronics Asia (S) Pte. Ltd.
- Hitachi Sales Middle East FZE
- Hitachi Home Electronics Myanmar Co., Ltd.
- Hitachi Compressor (Thailand), Ltd.
- Hitachi Consumer Marketing (China) Ltd.
- Hitachi (Hong Kong) Ltd.
- Hitachi Sales (Malaysia) Sdn. Berhad
- PT. Hitachi Modern Sales Indonesia
- Hitachi Home Electronics Vietnam Co., Ltd.

Companies under the equity method

- Hitachi-Johnson Controls Air Conditioning, Inc.

Cover
photo

Japanese red pines at Ome Works.

Limestone from the current Nariki district of Ome City in Tokyo was selected for the major remodeling of Edo Castle in 1590, and was transported for that purpose along the old road that runs near Ome Works.

The area was open plain at the time, and it is believed that pines were planted along the road as windbreaks, and then spread over time. Traces of that forest remain, and there are still native Japanese red pines, aged over 80 years, standing within the Ome Works site.

Scope of the report

- **Applicable period** Fiscal 2018 (April 1, 2018 to March 31, 2019)
- **Applicable organization** Hitachi Global Life Solutions, Inc. and its consolidated subsidiaries
- **Method of setting data for the reference year** See JIS Q 14064-1: 2010 (Greenhouse Gases – Part 1: Specifications and Guidelines for Quantifying and Reporting the Emission and Absorption Levels of Greenhouse Gases in Organizations).

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