HITACHI
Inspire the Next

Hitachi Global Life Solutions Environmental Report 2021

President and Director

J. Taniguchi

The COVID-19 pandemic has given us many uncertainties about the future, as well as many problems for social and economic activities, which are becoming ever more apparent around the world. In addition, frequent natural disasters, such as torrential rains from the abnormal weather, and forest fires caused by heat waves, are happening all over the world, so initiatives for protecting the global environment are becoming all the more important, whether that is reducing greenhouse gases which cause it, or initiatives to create a resource-circulating society.

Given these circumstances, the Hitachi Group is promoting our Social Innovation Business globally as we work to solve social issues around the three areas of *Environment*, *Resilience* and *Safety & Security*.

We are also promoting various initiatives to "contribute to achieving a sustainable society by enhancing manufacturing to be consistent with a resource-circulating society." Two major goals are achieving carbon neutrality at our facilities (factories), with net zero emissions of greenhouse gases by fiscal 2030 and achieving carbon neutrality throughout our entire value chain by fiscal 2050. At the same time, we are focused on environmentally-friendly product design and stepping up our conservation of resources, such as bolstering recycling, on the path toward a resource-circulating society. For example, we have recently developed a *glass door separation system* for refrigerators. This is how we are also advancing the development of new recycling technologies that promote resource circulation.

In the interest of speeding up these efforts, making each of our employees aware of the value of our existence as a company, and taking on the problems of society and our customers as our own, we formulated our Purpose in April of 2021.

More smiles to life for one and all.
A more comfortable tomorrow for people and society.
With innovations that deliver happiness to the world,
we open new doors to the future.

With this Purpose as a guide, we are utilizing our business foundation cultivated over the years from our products and technical knowledge, and applying digital technologies as we proactively promote open, collaborative creation with our partners. With a focus in the areas of *lifestyle*, *wellness*, *healthcare*, and the *environment*, we create life solutions to contribute to improving people's Quality-of-Life, and deliver a more pleasant way of living.

Furthermore, we will contribute to achieving a sustainable society via proactive communication with the diverse stakeholders, such as by disclosing information in Environmental Reports and through various other activities, and by working on reinforcing the ecosystem and developing manufacturing geared to recycling.

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» What We're Aiming For

Creating a Sustainable Society via Green Innovations and Going Digital

Purpose of Hitachi Global Life Solutions

The Hitachi Group practices sustainable management, which incorporates sustainability into the very core of its business strategy.

As per our 3-year business plan "2021 Medium-term Business Plan" that runs to the end of March 2022, we aimed to contribute to achieving a sustainable world as a global leader in the field of social innovation by improving *social*, *environmental* and *economic value*.

Further, in order to solve social and business management issues, we are focused on the 3 areas of *environment*, *resilience*, and *safety & security*.

The Hitachi Group's "Environmental Vision" also stipulates that "Hitachi will solve environmental problems, improve quality-of-life and work to achieve a sustainable society via social innovation projects that leverage collaborative creation of our stakeholders."

To help make each of our employees aware of the value of our existence as a company, and to promote efforts to take on and help solve the problems of society and our customers as our own, we at Hitachi Global Solutions formulated our Purpose in April of 2021. "More smiles to life for one and all. A more comfortable tomorrow for people and society. With innovations that deliver happiness to the world, we open new doors to the future." This is what guides us as we aim to improve the Quality-of-Life of consumers and contribute to a more sustainable society.

Specifically, in addition to our products business, which is focused on home appliances, we are actively promoting open collaborative creation with our partners while using the business foundation and digital technology we have cultivated to date. We create life solutions that contribute to improving the QoL of consumers, with a focus on the 4 fields of *living*, *wellness*, *health care* and the *environment*. We are also accelerating the sales of Hitachi brand products and the life solutions business overseas by further strengthening global alliances.

Details are presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/

Hitachi Global Life Solutions is promoting environmental activities based on the Hitachi Group's long-term environmental goals "Hitachi Environmental Innovation 2050" looking ahead to 2030 and 2050. Within this, we are formulating an "Environmental Action Plan" every 3 years with the aim of achieving a *low-carbon* and *resource-efficient society* that is *harmonized with nature*. Specifically in terms of achieving a low-carbon society, we aim to attain carbon neutrality at our facilities, with net zero emissions of greenhouse gases by fiscal 2030, as well as achieving carbon neutrality throughout our entire value chain by fiscal 2050.

Meanwhile, if we turn our attention to society and curbing greenhouse gas emissions, it is critical to take steps to reduce CO_2 emissions in our everyday lives within the value chain. Because households primarily use electricity generated via fossil fuels, saving energy when using household appliances is considered an important issue, as it accounts for a large proportion of household CO_2 emissions. As such, Hitachi Global Life Solutions will continue to contribute to the reduction of CO_2 emissions in the home by providing products with even greater energy-saving performance, along with excellent functionality. Additionally, we aim to contribute to reducing greenhouse gases via our solutions business. For example, our air conditioning IoT solution "exiida" monitors the operating status of air conditioning and other heating/cooling equipment remotely over the Internet, allowing it to diagnose signs of trouble from various data. By implementing preventive maintenance to equipment before a problem occurs and supporting its stable operation, we can contribute to reducing greenhouse gas emissions, which cause global warming. We are working in such ways to solve environmental issues for society and our customers by providing products, services, and solutions that save a great deal of energy and are environmentally friendly.

Because the population of the world is increasing steadily, environmental issues are becoming more serious, such as growing demand for resources, energy, and food, as well as increased production of waste. In order to solve these kind of issues, we are working on the recycling of home appliances, extending the life-cycles of products, and reducing food loss, all with the aim of building a resource-efficient society. As an example, we have a home appliance recycling plant (Kanto Eco Recycling) on the grounds of our Tochigi facility, so it has systems in place for handling everything from manufacturing to recycling. We are also working to improve the rate with which recycled plastics taken out in the recycling process are utilized for products. We are laying a foundation for a lifestyle in which goods circulate as resources and play a part in achieving a resource-efficient society.

We are continuing to work on improving quality-of-life and creating a sustainable society via green innovations and going digital.

Hitachi Group's long-term environmental goals — "Hitachi Environmental Innovation 2050"

Environmental Vision

Hitachi will resolve environmental issues and achieve both a higher quality of life and a sustainable society through its Social Innovation Business in collaborative creation with its stakeholders.

The aim of Hitachi's environmental management

Low-carbon Society	Resource Efficient Society	Society Harmonized with Nature
Climate Change Mitigation/Adaptation	Saving and Recycling Resources	Ecosystem conservation

Long-term Environment Goals

Hitachi's resolution looking toward 2050 and 2030

Hitachi Environmental Innovation 2050

For a low-carbon society	For a resource efficient society	For a society harmonized with nature
Achieve carbon neutrality throughout our value chain by fiscal 2050 50% cut in CO_2 emissions of facilities (factories and offices) by fiscal 2030 (compared to fiscal 2010) Achieve carbon neutrality by fiscal 2030	Build a society that uses water and other resources efficiently with customers and society 50% improvement in efficiency of use of water/resources by fiscal 2050 (compared to fiscal 2010)	Minimized impact on natural capital

Environmental Action Plan

Set environmental action items and targets every 3 years in order to achieve the long-term targets.

Reducing the environmental burden of the entire value chain is the key to achieving the SDGs and the goals of "Hitachi Environmental Innovation 2050."
Even within that effort, the Group recognizes making efforts to improve the energy-saving performance of its products and the efficiency of its production processes as important challenges, and those efforts are covered in this report.

» Environmental Management

With the aim of achieving our *Environmental Vision*, we will ascertain the environmental burden caused by our business activities and steadily implement PDCA cycles to reduce them. We will also continue to acquire ISO14001 certification at each of our manufacturing bases.
We have also established an environmental control system to assess our environmental activities in detail.

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 their 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 burdens 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.

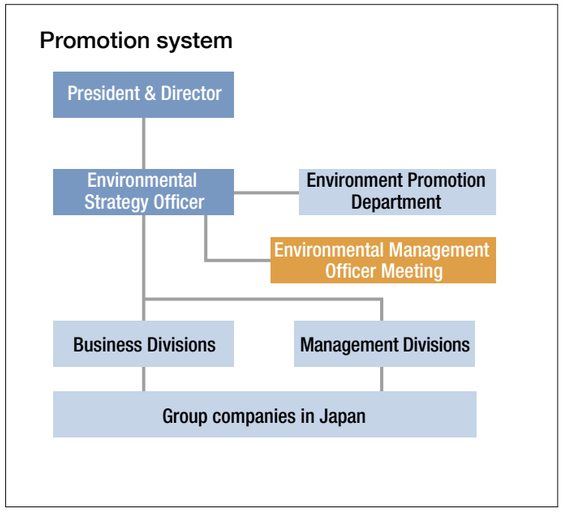
The full text of the Environmental Conservation Guidelines is presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/management/action-guidelines.html

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 domestic 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 also conduct internal environmental audits every year at our manufacturing bases in Japan (two locations) with the aim of improving our operations and environmental efforts and to prevent any occurrence of environment-related problems.

Note: Overseas manufacturing companies were established as separate corporations during the period from March to July 2021.
From July 2021, manufacturing will be conducted in 2 places in Japan.



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Environmental Action Plan

The Group establishes a concrete Action Plan every three years to achieve its Environmental Vision. In the "Hitachi Global Life Solutions Group's Environmental Ac tion Plan 2021" (hereinafter "Environmental Action Plan 2021") which was published in fiscal 2018, we formulated a three-year plan to work through until fiscal 2021, towards attaining the goals of our long-term environmental goals "Hitachi Environmental Innovation 2050." We will advance our environmental activities under this plan for the three years until fiscal 2021. However, the improvement rates for new target values set in fiscal 2018 have been negatively affected due to the worsening situation for the energy consumption rate in some Works factories since 2010.

Main action items and targets of Environmental Action Plan 2021

	CO_2 Reduction rate in CO_2 emissions from products and services (from fiscal 2010)	CO_2 Improvement rate in the CO_2 emissions per unit of the Works (from 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 result	24.0% reduction rate	7.0% improvement rate	35.3% improvement rate	-20.1% improvement rate	10.1% improvement rate
Fiscal 2020 targets	23.9% reduction rate	13.0% improvement rate	22.9% improvement rate	-18.3% improvement rate	-18.3% improvement rate
Fiscal 2020 result	24.5% reduction rate	16.5% improvement rate	41.0% improvement rate	-22.5% improvement rate	10.1% improvement rate
Fiscal 2021 targets	21.2% reduction rate	14.6% improvement rate	23.8% improvement rate	-17.1% improvement rate	-18.1% improvement rate

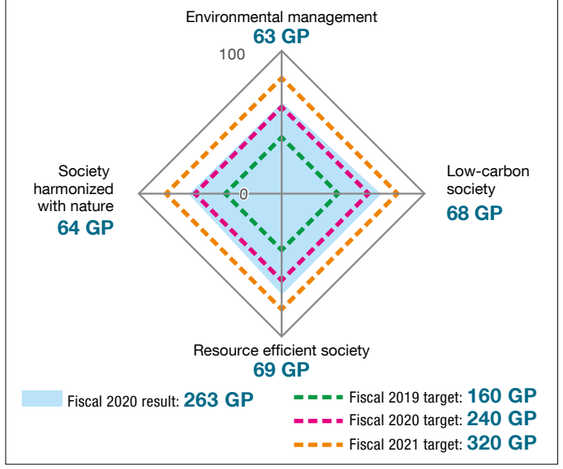
Improving and revitalizing activities by means of the assessment program for environmental activities

The Hitachi Global Life Solutions Group utilizes the Hitachi Group's unique GREEN21 assessment program as a system for evaluating the achievement situation of the activity targets of its environmental action plan.

GREEN21 assesses the achievements of activity targets for each Works factory or the entire Group by category. Each category has a total of 100 green points (GP), and 40 GP are awarded if the activity targets of Environmental Action Plan for fiscal 2019 are achieved; 60 GP are awarded if targets for fiscal 2020 are achieved; and 80 GP are awarded if targets for fiscal 2021 are achieved. By giving numerical values to achievements, we can reconfirm the strengths and weaknesses of each Works factory, and further improve and revitalize their activities.

For fiscal 2020, the Group achieved an overall rating of 263 GP under GREEN21, exceeding its goal of 240 GP. We have been enhancing our various activities in 2021 with the goal of exceeding the target of 80 GP (Total of 320 GP).

Fiscal 2020 results in the green point averages



Note: As each item is rounded to the nearest whole number, they may not match actual annual totals.

» Efforts to Realize a Low-carbon Society

Reduction in energy consumption is vitally important for cutting the greenhouse gases which cause global warming. The Group is working to reduce energy used at the product usage stage, by providing customers with products of higher energy-saving performance. At the same time, we are working to reduce the energy consumed in our production processes and to reduce CO_2 emssions from services and solutions.

Improving the environmental performance of products, services and solutions

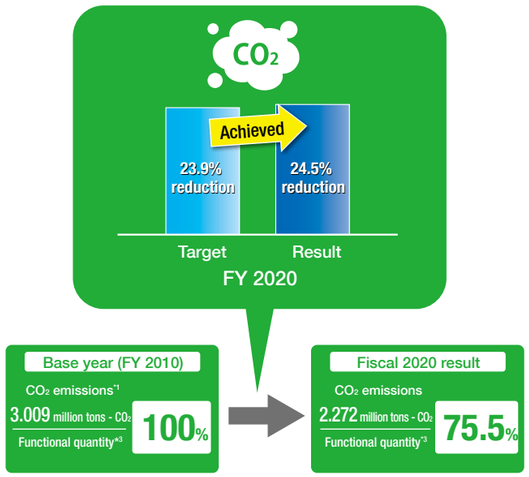
The Group aims to contribute to solving environmental issues by developing and spreading environment-conscious products, as well as solutions and services. One of our actions to that end is to raise the environmental performance of products and promote the widespread application of IoT solutions, such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

The assessment subjects are air conditioning IoT solutions as well as refrigerators, washing machines, and LED lighting, which provide high levels of contribution to the suppression of CO_2 emissions (power consumption) during use.

In developing products, we work to achieve functional improvement and environmental burden reduction in tandem, using the functions of equivalent models such as the volume of refrigerators and the wash load of washing machines, etc. as indicators. We are also working to cut CO_2 emissions by expanding sales of products with high energy-saving performance and promoting the widespread application of air conditioning IoT solutions.

In fiscal 2020, we achieved a 24.5% reduction, against a reduction target of 23.9%, compared to fiscal 2010.

CO_2 emission reduction rates (fiscal 2010 comparisons) by product types with high CO_2 emission suppression as well as solutions and services (refrigerators, washing machines, LED lighting, and "exiida" Remote Monitoring/Predictive Diagnosis).



*1: Sum of the amount of CO_2 emissions before adopting solutions and services and the amount of CO_2 emissions based on the assumption that a required number of units which corresponds to that of products from the assessment fiscal year were used for the whole lifetime

Reducing CO_2 emissions in the production process

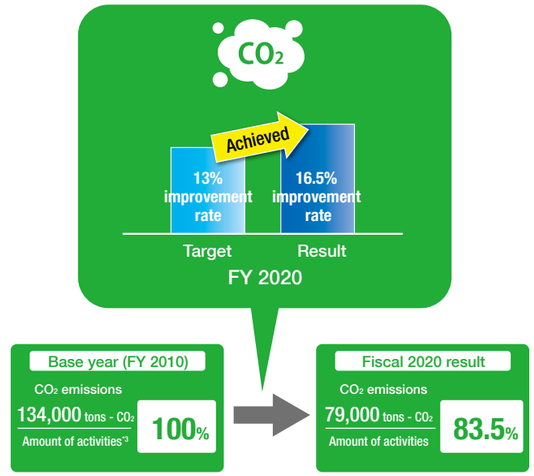
Energy consumption in corporate activities is one emission source of carbon dioxide (CO_2) and other greenhouse gases that cause global warming.

The Group also uses energy when producing products. It therefore promotes the efficient use of energy consumed in its production activities by means such as the introduction of high-efficiency devices, and the amelioration of the production process.

As a specific goal from fiscal 2019, using CO_2 emissions per unit*2 as an indicator, we are to achieve a 14.6% improvement in fiscal 2021, compared to fiscal 2010.

For fiscal 2020, we achieved a 16.5% improvement rate in the CO_2 emissions per unit, compared to the goal of 13.0%.

Improvement rate in the CO_2 emissions per unit (compared to fiscal 2010)



*2: Quotient of CO_2 emissions divided by the amount of activities
*3: Value with close correlation to CO_2 emissions (such as production and quantity produced)

Reduction of CO_2 through services and solutions

Air-conditioning IoT solution: "exiida" Remote Monitoring/Predictive Diagnosis

"exiida"*1 is an air conditioning IoT solution that solves various problems by connecting refrigeration and air conditioning equipment to the Internet and collecting, accumulating, analyzing, and then utilizing data from the equipment.

By monitoring the operating state of air-conditioning and cooling equipment, the system compares the current operating data with normal operating data to detect any change that could lead to trouble. We can then implement preventive maintenance based on these results before there is a failure, which supports more stable operation of refrigeration and air conditioning equipment in mission-critical environments, such as food and freezer warehouses, and operating rooms of medical facilities. In the event of a refrigerant leak, this helps limit the amount of a leak, thus contributing to limiting the emission of greenhouse gases which cause global warming.

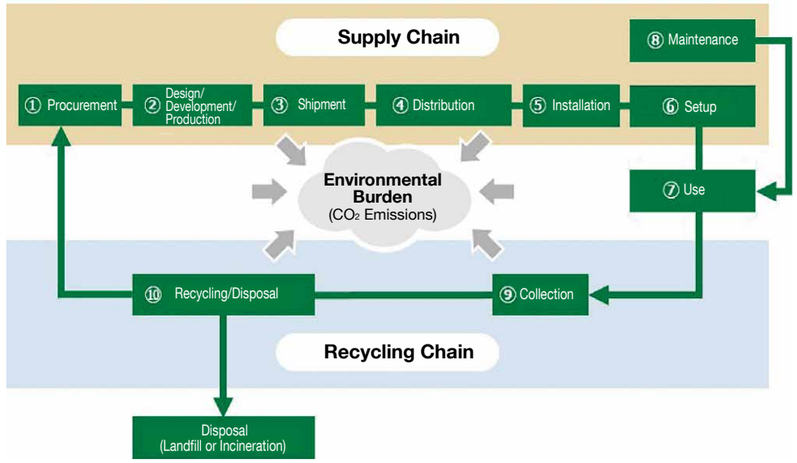
We have obtained mathematical results that indicate that using predictive diagnosis and then regularly conducting preventive maintenance of equipment leads in some business scenarios to a reduction in the number of on-site inspections as well as in the movement of service personnel in the event of a failure. Thus, CO_2 from these can be reduced accordingly.*2

When calculating the amount of CO_2 that is reduced, we use the SI-LCA environmental evaluation method, which was developed by Hitachi for services and solutions.

Being able to visualize the effect of limiting CO_2 emissions helps us provide greater environmental value to our customers.

About the environment assessment method SI-LCA for services and solutions

In 2003, to promote environmental management, Hitachi developed the method System Integration-Life Cycle Assessment (SI-LCA*3). The SI-LCA method assesses the burden on the environment (CO_2 emissions) in the life cycle of service and solution products: from procurement, design, and development; to use and disposal. Introduction of service and solution products has the positive effects of being able to reduce movement of people and things and to reduce resource consumption. However, there is also a negative effect on the environment because IT devices are used and resources are consumed when the devices are manufactured and energy is consumed during their operation. SI-LCA calculates the burden on the environment during the entire life cycle of service and solution products by summing up the burdens at each of the 10 stages that have a great impact on the life cycle.



Overview of the assessment method SI-LCA

*1 Reference URL: https://www.hitachi-gls.co.jp/products/exiida/monitoring/
*2 The values of environmental burden factors vary with the evaluation conditions and model used. This evaluation is based on the CO_2 calculation method of **SI-LCA** and information as of September 2020. The calculations are based on the "⑦ Use" stage in the figure above.
*3 The SI-LCA method is based on the "2005 Information and Communication Technology (ICT) Environmental Evaluation Guidelines" (Japan Environmental Efficiency Forum, published in March 2006).
Reference URL: http://www.hitachi.co.jp/products/it/sustainability/environment/products-services/si-lca/index.html

Details are presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/

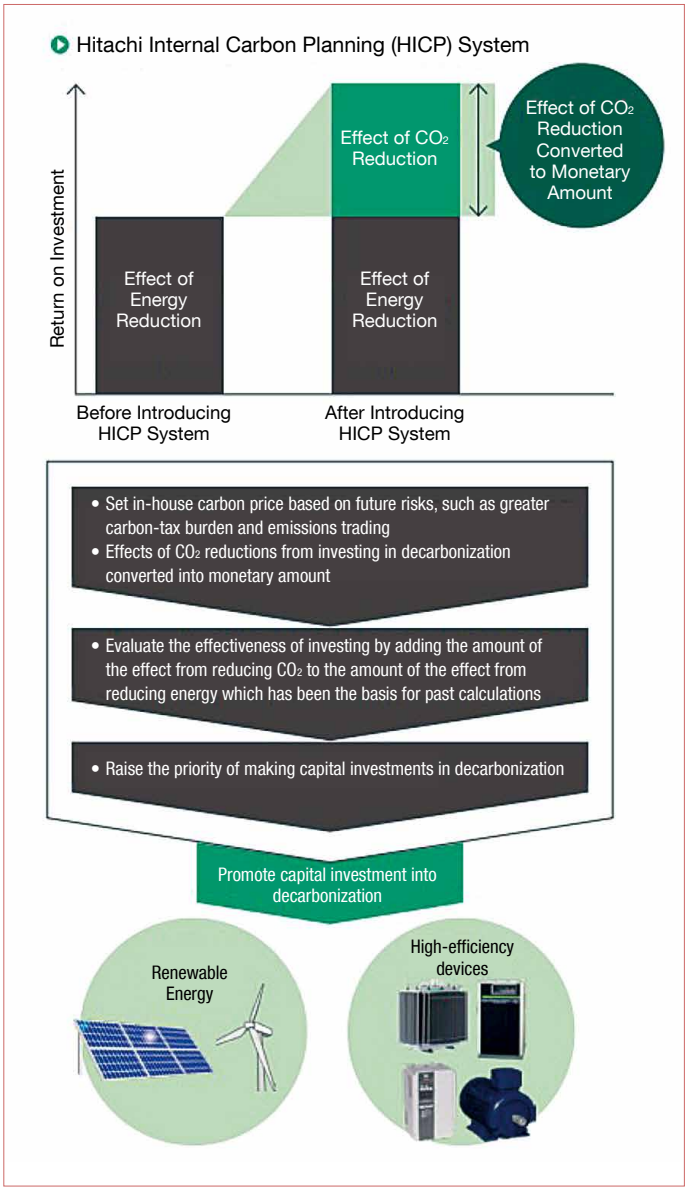
» Efforts to Realize a Low-carbon Society

Efforts for achieving carbon neutrality by fiscal 2030

Hitachi has established and is promoting the goal of achieving "carbon neutrality at Hitachi facilities (factories and offices) by fiscal 2030" ("Hitachi Carbon Neutral 2030") in its long-term environmental goals "Hitachi Environmental Innovation 2050."In "Hitachi Carbon Neutral 2030," we have augmented the former goal of a 50% reduction in CO_2 emitted from our own facilities (factories and offices) and now aim for carbon neutrality by cutting emissions by 100% by fiscal 2030 based on fiscal 2010 levels.

Hitachi Internal Carbon Pricing System

Hitachi has adopted Internal Carbon Pricing (ICP), which is a voluntary mechanism for pricing the amount of carbon generated or reduced in order to make investment decisions and manage risk within the company, and has been operating it as Hitachi Internal Carbon Pricing (HICP) since fiscal 2019. With the aim of effectively reducing CO_2, the HICP system makes it possible to visualize how much CO_2 is reduced as a result of capital investments in factories and offices. This encourages new capital investments that promote decarbonization, such as energy savings, above and beyond the investment decisions before now. Specifically, we set an in-house carbon price with reference to global emissions trading and carbon taxes, and we aim to expand capital investments for reducing CO_2 by giving incentives, such as converting the effect of CO_2 reductions from decarbonization capital investments into a monetary amount, adding the effect of reduced energy and evaluating the return on investment.



Initiatives for Fiscal 2020

Hitachi Global Life Solutions is using the HICP system and decided to implement the following for its equipment.

- Update heat shock testing equipment
- Update molding machines (2 units)
- Switch the substation power supply

Upon seeing the effect of intangible environmental values expressed numerically, we decided to step up our efforts aimed at carbon neutrality even further.

Details are presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/

» Efforts to Realize a Resource Efficient Society

To address environmental issues such as resource depletion, waste problems, and water shortage, the Group is promoting thorough product recycling, resource-saving Monozukuri, reduction of waste products from production processes, and reduction of water usage in production processes, as it works to improve the efficiency with which it uses water and resources.

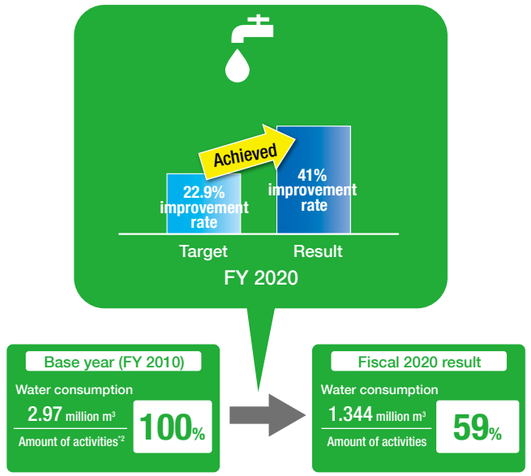
Reducing water consumption in the production process

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 groundwater, and other issues involving various aspects.

To help settle these issues, the entire Group has been promoting a reduction in water consumption within the production process. As an activity target, we are working to improve water consumption per unit*1, towards the goal of a 23.9% improvement in fiscal 2021, compared to fiscal 2010.

The improvement in the water consumption per unit in fiscal 2020 reached 41%, far exceeding the 22.9% target. The main measures we have put into effect include steps to prevent leaks via patrols, improving water usage by visualizing its management, and reusing wastewater. We will continue to further our reduction efforts.

Improvement rate of water consumption per unit (from fiscal 2010)



*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

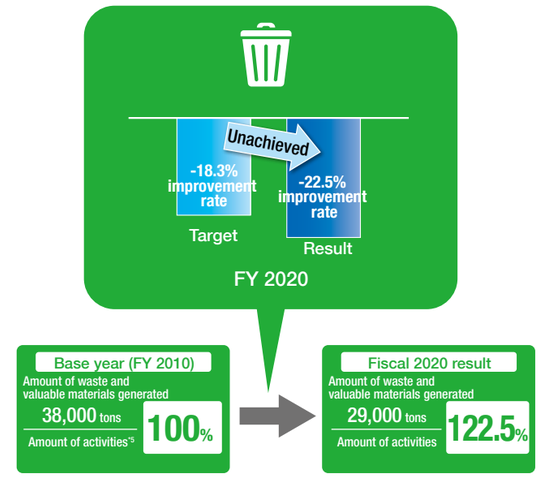
Resource issues due to economic development and population growth are common worldwide, and actions are being demanded to control the mass consumption of resources and the large quantities of waste.

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. From fiscal 2019, based on our long-term environmental goals, we are working to achieve new goals that assumed the standard to be 2010.

Specifically, we are working to improve the amount of waste and valuable materials generated per unit*3, towards a goal of a -17.1% improvement*4 in fiscal 2021, compared to fiscal 2010.

In fiscal 2020, we achieved a -22.5% improvement rate for the amount of waste and valuable materials generated per unit, falling short of our -18.3% goal. The main reasons for this were that sales dropped and the efficiency of resource utilization dropped at some facilities due to the impact of the spread of COVID-19.

Improvement rate of the amount of waste and valuable materials generated per unit (compared to fiscal 2010)



*3: Quotient of the amount of waste and valuable materials divided by the amount of activities
*4: Due to the situation growing worse at some Works factories for the amount of waste and valuable materials generated per unit as of fiscal 2010, a new target was set in fiscal 2018, resulting in a negative improvement rate for the target value.
*5: A value linked closely to the amount of waste and valuable materials (such as production and quantity produced)

Promoting product recycling

The Home Appliance Recycling Law 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 rate*6 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. Five suppliers (group B)*7 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.

As a result of these efforts, the recycling rates of our used home appliances in fiscal 2020 were 81% for refrigerators/freezers, 94% for washing machines/clothes dryers, 74% for CRT TVs, and 86% for LCD and plasma TVs, achieving recycling rates that exceed the legal standards.

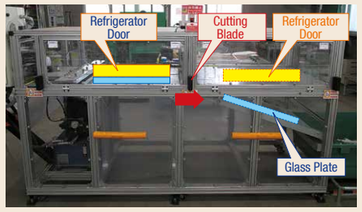
*6: Evaluated by the percentage of used home appliances collected by the manufacturer, etc., that are transferred as parts and raw materials for a fee or for free, by weight. Legal standards for recycling rates: 70% for refrigerators and freezers, 82% for washing machines and clothes dryers, 55% for CRT TVs, and 74% for LCD and plasma TVs.
*7: Sharp Corporation, Sony Corporation, Fujitsu General Limited, Mitsubishi Electric Corporation, Hitachi Global Life Solutions, Inc. (five companies in total)

Development of Refrigerator Glass Door Separation System

For reasons like excellent scratch-resistance and sense of high-quality design, refrigerators that use glass in their doors have been selling well in recent years. Refrigerator doors that include glass have sometimes been treated as industrial waste, because the glass is difficult to separate from other materials (such as urethane and plastic) when crushed mechanically.

It was anticipated that disposal of glass-door refrigerators would become an issue if they were discarded in large quantities as used home appliances when they reached the point of being replaced.

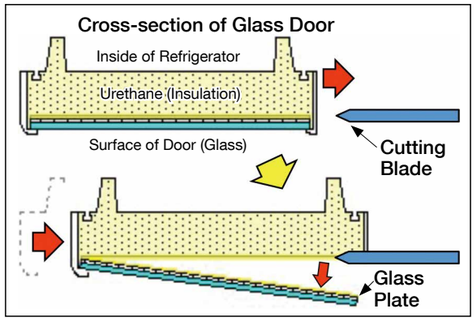
To solve this kind of problem our group has been working since 2017 on developing a system that can automatically separate the glass plates used in refrigerator doors. We ran a variety of trials in collaboration with Hitachi's Water & Environment Business Unit and Reserch & Development Group during the development of an automatic separation system. The system uses a "push cutting method," and makes a notch for the cutting blade allowing it to penetrate the material reliably, prior to the separation process. Further, by optimizing the shape of the blade and the conditions for where it makes contact, we were able to lessen damage to the glass plate of the door during automatic separation. As the glass plate is peeled off of the door with a cutting blade, the process is relatively environment-friendly because it does not use solvents, ultrasonic waves, heat, etc. Furthermore, eliminating the need to touch the glass plate during separation makes the process safer, and automation makes it possible to separate the glass more reliably and quickly than manual processes.



Overview of Refrigerator Glass Door Separator

Removal of Glass Door from Refrigerator

Input to the Separator



Glass Separation Mechanism Using Push-Cutting

Details are presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/

» Efforts to Realize a Society Harmonized with Nature

Promoting our business activities has a considerable effect on the ecosystem. As part of its ecosystem conservation work, the Group practices proper management of chemical substances which could potentially impact ecosystems.
It is also committed to reducing chemical emissions in its production processes.

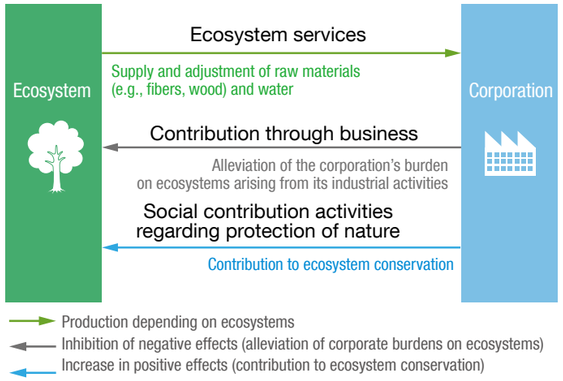
Relations between ecosystem conservation and corporations

Our life is based on the various benefits of nature ("ecosystem services") provided by air, water, soil, animals, plants, and other natural capital. To achieve a society that can coexist with nature, so we can enjoy its blessings into the future, Hitachi has set a goal of minimizing its impact on natural capital in its "Long-term Environmental Goals." Our business activities have a negative impact in the form of the emission of greenhouse gases and chemicals into the atmosphere, along with generating waste. By contrast, we classify our provision of products and services that contribute to conserving ecosystems, and our social contribution activities related to protection of nature such as ecosystems and biodiversity, as a positive impact. We are striving to minimize the gap between them by 2050.

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.

Relations between ecosystem conservation and corporations



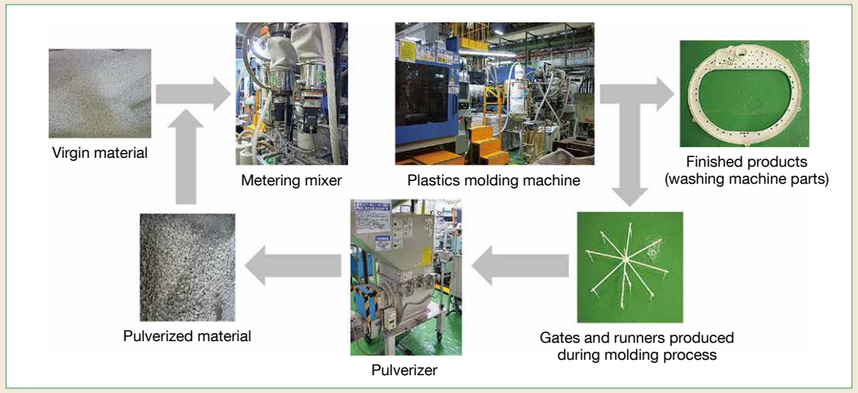
Of these activities, contribution through business promotes design and production activities that alleviate a corporation's burden on ecosystems, while providing energy-saving products. We also control chemical substances properly by positioning such control as part of ecosystem conservation activities.

Yield Improved in the Plastic Molding Process

The Taga Works of the Hitachi Global Life Solutions manufactures products including washing machines, cleaners, rice cookers, air purifiers, and IH cook tops. In order to effectively utilize the gates and runners*1 that are created as byproducts of the plastic molding process used to create the plastic components for these consumer electronics, the plant has installed a pulverizer adjacent to the production line.

This initiative has enabled some of these gates and runners, which were previously shipped to other companies and plants for recycling, to be recycled immediately in the same production process. Thanks to this, the plant recycled 199 tons of plastic from gates and runners in fiscal 2020, improving yield.*2

*1: Gates and runners: The channels which direct molten plastic into the mold. The plastic which solidifies within these channels is cut away from the finished product as waste material.
*2: Yield: The ratio of products produced to volume of raw materials used. According to Japanese Industrial Standards (JIS), if materials are recycled within the same production process they are not considered recycled materials.



Flow of Waste Materials for Recycling During the Plastic Molding Process

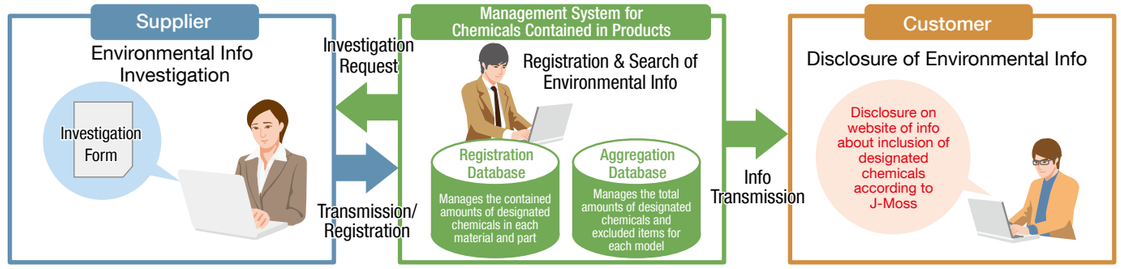
Controlling chemicals contained in products

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

Details are presented on our website (Japanese language only).
https://www.hitachi-gls.co.jp/about/environment/

Overview of the management of chemicals contained in products



Reducing chemicals in the production process

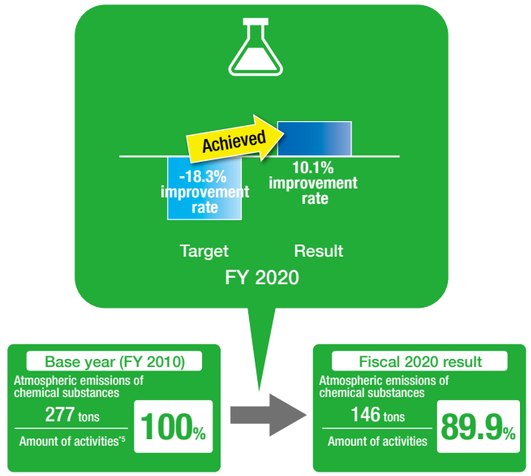
To prevent atmospheric pollution, the Group practices proper management of chemicals, and is working to reduce emissions of Volatile Organic Compounds (VOCs), etc. from its factories.

The goal for this activity, using chemical atmospheric emissions per unit*3 as an indicator, is to achieve an improvement rate of -18.1% in fiscal 2021, compared to fiscal 2010*4.

The improvement in the atmospheric emissions of chemical substances per unit in fiscal 2020 reached 10.1%, far exceeding the -18.3% target. An example of a major improvement was reducing the amount of painting we did ourselves by adopting "PCM" pre-coated steel plates for the cabinets of washing machines. This significantly reduced the emissions of chemicals from the paint.

We also were able to ascertain the emissions of sulfur oxides (SOx) and nitrogen oxides (NOx), which must be measured as per regulations, and we established proper controls accordingly.

Improvement rate of chemical substance emissions into the atmosphere per unit (compared to fiscal 2010)



*3: Quotient of chemical substance emissions into the atmosphere divided by the amount of activities
*4: Due to the situation growing worse at some Works factories for the atmospheric emissions of chemical substances per unit as of fiscal 2010, a new target was set in fiscal 2018, resulting in a negative improvement rate for the target value.
*5: A value linked closely with the atmospheric emissions of chemical substances (such as the amount of chemical substances handled and their production)

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» Environmental Communication

The Group recognizes that it is important to interact with its actual and potential consumers, distributors, suppliers, members of the community near its works, employees, their families, and many other stakeholders. In the future we will communicate more proactively as we promote our environmental activities.

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, websites, and other channels.

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.

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.

Saving electricity together, starting with whatever each of us can do
https://kadenfan.hitachi.co.jp/support/about/attention/setsuden.html

Scope of Environmental Report

- Applicable period
  Fiscal 2020 (April 1, 2020 to March 31, 2021)
- Applicable organization
  Hitachi Global Life Solutions, Inc. and its consolidated subsidiaries
- Targeted offices for environmental burden data count
  Hitachi Global Life Solutions, Inc.
  Taga Works and Tochigi Works
  Hitachi Consumer Products (Thailand), Ltd. (Established as separate corporation in July 2021)
  Shanghai Hitachi Household Appliances Co., Ltd. (Established as separate corporation in July 2021)
- 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).

Details are presented on our website (Japanese language only).
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Company Overview	
Company name	Hitachi Global Life Solutions, Inc.
Main business	Providing sales, engineering, and maintenance services for home electric 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)
Annual Sales [Consolidated Basis]	456.3 billion yen (for the fiscal year ended March 31, 2021)
Consolidated number of employees	Approx. 5,700 (as of July 1, 2021)
Manufacturing sites	Tochigi Works and Taga Works
Website	https://www.hitachi-gls.co.jp/

Group Companies

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

Companies under the equity method

- Hitachi-Johnson Controls Air Conditioning, Inc.
- Arçelik Hitachi Home Appliances B.V.

Contact Address

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