

Enhancing Environmental Management on an Ongoing Basis

Hitachi's Approach

To lay the groundwork for the promotion of environmental management on an ongoing basis and thereby achieve its Environmental Vision, the Hitachi Group needs to establish and continuously improve systems to reduce the environmental burden of its business operations.

Based on a number of certifications and guidelines, including ISO 14001, we have developed Group-wide environmental management systems that allow us to gauge the environmental burden of our business activities and steadily implement a PDCA cycle to reduce that burden. In order to reduce the environmental burden throughout the value chain, we apply Environmentally Conscious Design Assessments during the design and development stages of the products and solutions we offer. We also have in place a global environmental management framework, under which we evaluate our environmental activities and keep close track of our environmental performance.

Environmental Management

Environmental Management Framework

Our global environmental management system supports environmental decision making and implementation at Hitachi, Ltd. and 864 consolidated subsidiaries (a total of 865 companies).

The CSR and Environmental Strategy Division is responsible for developing Group-wide environmental policies. Important items related to environmental initiatives are deliberated by the Executive Sustainability Committee, established in 2017; it is chaired by the president of Hitachi, Ltd., and its members include top Hitachi executives. The environmental strategy officers from business units and major Group companies ensure that the Hitachi Group Environmental Action Plan approved by the executive officer in charge of environmental concerns is implemented throughout the Group. Eco-Management Meetings, reorganized in 2017, promote long-term targets, set goals for the Environmental Action Plan, develop ways to achieve them, and endorse initiatives to be carried out by the Group as a whole. Outside Japan, we assign regional specialists to report on the progress of the Environmental Action Plan and share information on the latest environmental regulations while exchanging views on local environmental issues during meetings held once or twice a year in each region.

► Building Environmental Management Systems

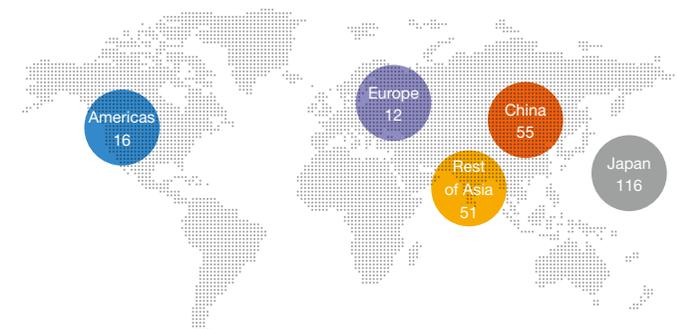
We have established environmental management criteria to ensure efficient management of each business site's environmental load. There are approximately 200 business sites that meet these criteria, and these, together with the CSR and Environmental Strategy Division, have developed and implemented the Hitachi Group Environmental Promotion Organization EMS (environmental management system) to promote the consistent implementation of environmental policies. At the same time, every business site meeting the

mentioned criteria for environmental management continues to maintain ISO 14001 certification. Certification is also being pursued at business sites that do not yet meet the criteria. In conjunction with the issuance of ISO 14001: 2015, business sites that acquired certification prior to this version have been working to align their environmental management systems with the 2015 update. As of March 2017, approximately 25% of business sites have completed this task. The transition will be steadily promoted with an eye to meeting the September 2018 deadline.

Status of ISO 14001 Certifications (as of March 31, 2017)

	Total
Number of Certified Sites*1	250

*1 Including companies with more than one certified business site.



List of ISO 14001-Certified Sites

► **Monitoring Environmental Performance Data**

For effective environmental management, we collect data on the environmental performance of business operations using the Environmental Data Aggregation System.

The system was upgraded in fiscal 2016, and it now supports multiple languages and is able to directly register environmental load data from some 1,200 Hitachi business sites worldwide on items such as energy use, CO₂ emissions, and waste generation, as well as whether it falls under relevant environmental laws and regulations. The collected data will be aggregated and analyzed at the CSR and Environmental Strategy Division where we will identify environmental management issues, share instructive examples within the Group, and improve environmental practices.

At the approximately 200 business sites that meet Hitachi's environmental management criteria, we collect and analyze data on such key items as energy, waste materials, and water on a monthly and quarterly basis so that the environmental management levels can be further increased.

► **Environmental Activity Evaluation System**

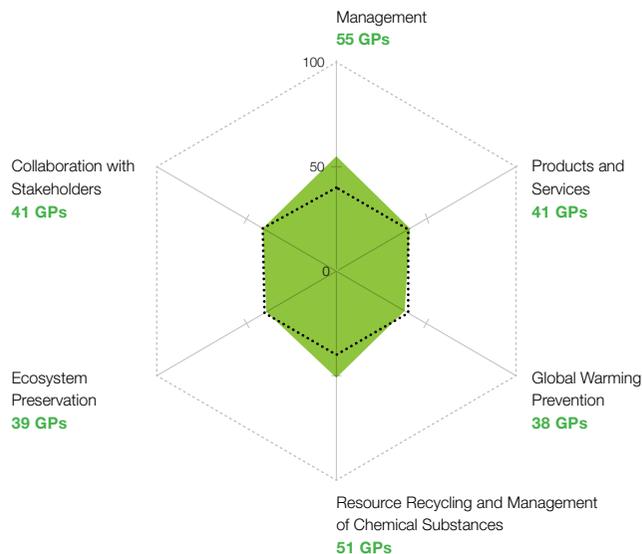
We use our own evaluation system, GREEN 21, to improve the level and quality of our environmental activities. It divides the targets of the Environmental Action Plan into six categories and evaluates achievements. A perfect score for any category is 100 green points (GPs), and each item is assessed on a scale from 1 to 5.

Starting in fiscal 2016, activities reflecting an eagerness to stimulate environmental action have been taken into consideration as an additional scoring criterion. Our fiscal 2016 comprehensive evaluation was 265 GPs against the target of 240 GPs. For fiscal 2017, we will continue to promote environmental activities to achieve the target of 360 GPs.

Key Indicators

● **Green Point (GP) Average: FY 2016 Targets and Results**

..... FY 2016 target: 240 GPs
 ■ FY 2016 result: 265 GPs



Environmentally Conscious Design Assessments

We conduct Environmentally Conscious Design Assessments for all products and services involving a design process to ensure environmentally conscious design and development. Thirty environment-related areas are assessed for their impact on climate change, resource depletion, and environmental pollution (ecosystem degradation) at each stage of the product life cycle with a view to reducing the environmental burden. To meet the IEC 62430*1 criteria for environmentally conscious design, in addition to implementing these assessments, we are advancing environmentally conscious design and development

by integrating this process into our existing management system, such as by keeping abreast of environmental regulations and ascertaining the environment-related needs of our stakeholders. We conduct life cycle assessments (LCAs) focusing on our main, priority products to quantitatively evaluate their burden on the global environment in such areas as the consumption of mineral resources, fossil fuels, and water resources, as well as their impact on global warming and air pollution. The results of such LCAs are disclosed to our stakeholders and utilized in improving the design of next-generation products.

*1 The standard developed by the International Electrotechnical Commission concerning environmentally conscious design for electrical and electronic products.

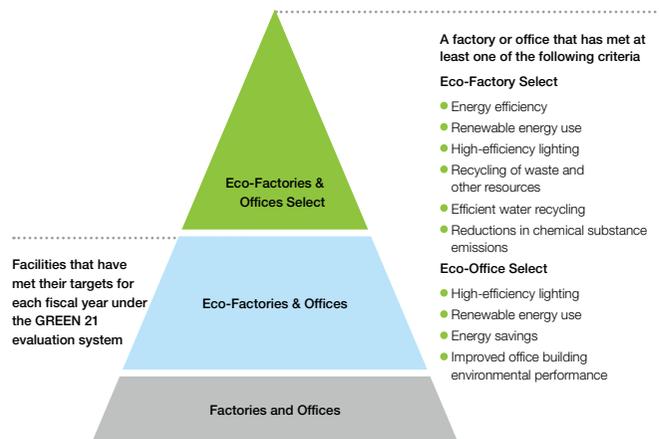
Creating Eco-Factories & Offices Select

To reduce the environmental burden of our business activities, since fiscal 2011 the CSR and Environmental Strategy Division has implemented an Eco-Factories & Offices Select certification program for business sites that promote activities demonstrating a high level of environmental consciousness and produce notable results in that area. This helps raise the environmental awareness of employees and promote environmentally conscious business activities.

Based on certification criteria that were developed for our manufacturing (factory) and nonmanufacturing (office) divisions globally, we certify existing factories that actively engage in improvements to achieve efficient production and new offices that have been environmentally designed from the start. Superior policies from certified factories and offices are shared with the entire Group, with other locations encouraged to implement them as well. To maintain and raise the level of environmental awareness through Eco-Factories & Offices Select, certified factories and offices are re-evaluated every fiscal year to confirm

that their performance continues to meet requirements. In fiscal 2016, 9 facilities were newly certified and 67 facilities had their certifications renewed. The total number of certified factories and offices was 76.

Eco-Factories & Offices Select Certification Criteria



Energy Savings in Eco-Factories & Offices

► **Energy Savings with an Efficient Manufacturing Line Using JCM*1 (Hitachi Chemical Co., Ltd.)**

The Hitachi Chemical Group's Hitachi Chemical Energy Technology (Vietnam) manufactures lead-acid batteries in Vietnam, and has constructed a new, efficient manufacturing line to reduce energy consumption. In conventional manufacturing lines, electric power consumption is particularly high during the formation and charging processes. By integrating these processes to reduce the amount of electric power consumed and by eliminating the LPG used in washing and drying processes, CO₂ originating from fossil fuels was reduced about 60% on the new line. In this way CO₂ emissions from the plant were reduced by 2,880 t-CO₂ compared to fiscal 2015. The washing process could also be eliminated from the new line, cutting down on the amount of water used. Construction of the new line was done using the Joint Crediting Mechanism (JCM).

*1 Joint Crediting Mechanism (JCM): A system of cooperating with developing nations in efforts to reduce greenhouse gases, after which the benefits of the reduction are shared between the two countries.



The newly constructed manufacturing line.

► **Energy-Saving Activities Using IoT with a Shop Floor Perspective (Hitachi Construction Machinery Co., Ltd.)**

Hitachi Construction Machinery uses a network of Japanese and international affiliates centered on four main plants in Japan to produce construction machinery and its principal components. Together with energy reductions during use as these products switch to electric or hybrid power, efforts throughout the network are also being made to reduce energy consumption in the manufacturing stage.

The entire Hitachi Construction Machinery Group continues to implement energy-saving measures and promote greater efficiency in plant and office lighting and air-conditioning. Several locations have also introduced IoT technology to further reduce energy consumption and raise productivity. Specifically, by adopting the Energy and Equipment Management Service, a key solution concept under Hitachi's Lumada IoT platform to comprehensively control energy data and equipment across multiple business facilities, they are able to efficiently analyze and manage electric power data gathered from equipment at each plant. Energy usage by the machine tools, robots, and other production equipment used in plants is finely controlled, reducing standby power and increasing energy efficiency.

With these efforts the energy use per unit has been decreased 32% compared with fiscal 2010 at the company's main plants in Ibaraki Prefecture, contributing to a significant reduction in electric power costs.



Tsuchiura Works East Building and the Hitachi UH03 hydraulic excavator, which is included in the list of Japan's Mechanical Engineering Heritage.

-  Hitachi Construction Machinery Co., Ltd.
-  Lumada IoT Platform
-  Energy and Equipment Management Service

Environmental Education Initiatives

Promoting Environmental Education

Promoting greater environmental awareness and understanding among our employees is essential to Hitachi's effort to energize its environmental activities. Toward that end, we are advancing our environmental education. Hitachi Group training is being implemented for all Group employees, from newly hired workers to working-level employees. They are provided with basic environmental education, as well as courses on environmental risks and compliance with environment-related laws and regulations.

Actions and Achievements

At Hitachi, we provide basic environmental management courses for employees working in air, water, and waste management, as well as training in recent amendments to laws and operational procedures. We are also strengthening similar courses designed for working-level employees who work outside of Japan. Accordingly, in fiscal 2016, 21 people from 9 companies took part in a training program that was hosted in Ayutthaya, Thailand, in February 2017, and a program in Amoy, China, in March 2017 attracted 57 people from 37 companies.

In order to complete our response to ISO 14001: 2015 within the three-year transition period, explanatory meetings for the internal auditors of the Hitachi Group were held to deepen understanding of the revisions. In fiscal 2016, the explanatory meetings held in Japan (in June and August) were attended by 99 internal auditors from 43 Group companies, while 74 internal auditors from 49 Group companies attended the meeting in Nanjing, China (in September). Furthermore, 16 internal auditors from 15 Group companies attended the US meeting in Dallas (in June) to deepen their understanding of the revision. In addition

to Hitachi Group training, individual companies and units provide education tailored to their own business area. For general education, we offer Internet-based e-learning courses in Japanese, English, and Chinese to familiarize all employees with our Environmental Vision and long-term environmental targets called Hitachi Environmental Innovation 2050. To date, 142,012 employees worldwide have taken this course.

Environmental Education and Training System

	Target	Introductory	Beginning	Intermediate	Advanced
General education	All employees	Introductory training for new employees			
		Online e-learning: Eco-Mind education (General topics: Global environmental issues, environmental law, etc.)			
Specialized education	Working-level employees	Basic environmental management course for working-level employees (management of waste; air/water quality; hazardous materials; development & operation of management systems; etc.)			
			Education for Eco-Factories		
			Eco-Product development training		
			Risk communicator training		
	Internal environmental auditors			Brush-up training on ISO 14001	
				ISO 14001 auditor certification training	ISO 14001 senior auditor certification training

Next Steps

From fiscal 2017, we will continue with environmental education training across our global operations to enhance the knowledge and skills of staff in charge of factory management. Since the general e-learning course is a three-year program, we will encourage more employees to take the course with the aim of familiarizing them with our Environmental Vision and Hitachi Environmental Innovation 2050.

Environmental Compliance

Environmental Compliance Response

Hitachi considers the environmental burden of all business activities and sets voluntary management criteria that are more stringent than regulatory requirements. We regularly monitor water quality, noise levels, and other conditions at each business site and work to minimize environmental risks. In addition, we take every possible step to prevent problems or their recurrence and to strengthen controls by sharing information on environmental laws and regulations, as well as examples of infringements, throughout the Group.

Actions and Achievements

In fiscal 2016, we received a worldwide total of 12 notices concerning water quality, air quality, or waste matter and complaints about noise or odors. Of these, 6 were complaints from nearby residents regarding noise, foul odor, or construction dust from our business sites. This is slightly higher than the 4 complaints we received in fiscal 2015, but they were all promptly addressed.

Hitachi continues to implement enhanced environmental management in order to prevent repeated or new contamination occurrences.

Global Notices and Complaints

	Water quality	Air quality	Waste matter	Complaints	Other (petition, notification, etc.)
Fiscal 2016 cases	1	2	1	6	2

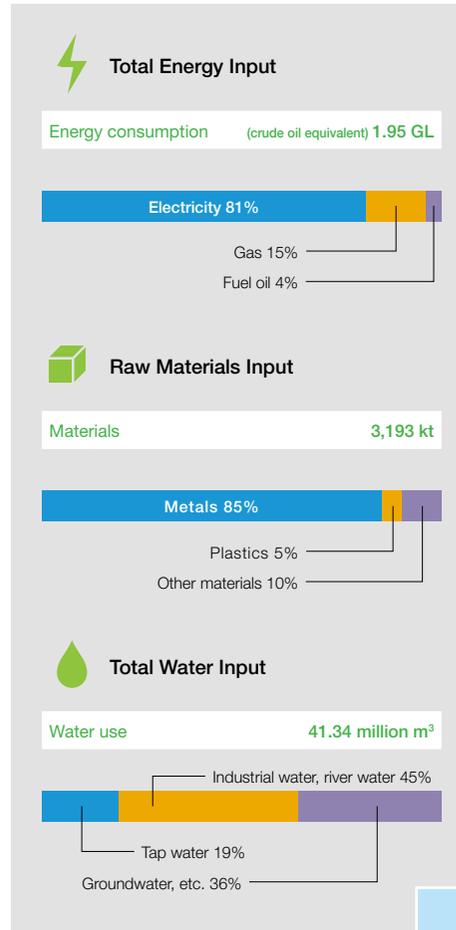
As part of our measures to address the pollution of soil and groundwater, we are examining the soil and water for any contamination at business sites where hazardous chemical substances have been used. In case contamination is found, we conduct cleaning and monitoring activities until decontamination has been completed.

Environmental Load

Data on Environmental Load from Operations (FY 2016)

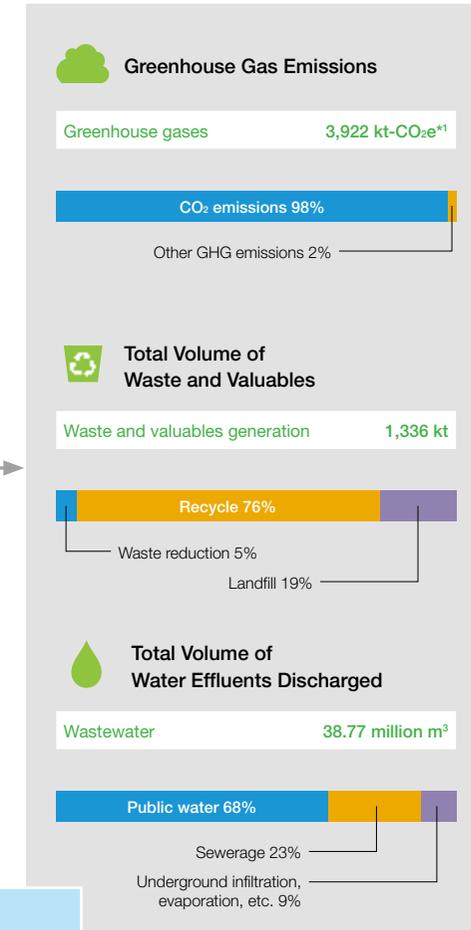
The data below shows the resource inputs and the environmental load for Hitachi Group operations in fiscal 2016.

● Total Input of Resources



● Total Output (Environmental Load)

Products shipped: 3,147 kt



Water recycling
28.74 million m³

*1 CO₂e: CO₂ equivalent.

Detailed Data on Resource Input and Environmental Load Output

► Total Input of Resources

Total resources input from Hitachi Group operations.



Total Energy Input

Energy consumption: (crude oil equivalent) 1.95 GL

		FY 2015	FY 2016	
Renewable energy	Electricity	3.9 GWh (39 TJ)	2.9 GWh (29 TJ)	
Non-renewable energy	Electricity	5,111 GWh (49.7 PJ)	5,897 GWh (57.3 PJ)	
	Gas	Natural gas	0.11 Gm ³ (4.9 PJ)	0.16 Gm ³ (7.1 PJ)
		LPG, LNG, etc.	56 kt (2.9 PJ)	61 kt (3.2 PJ)
	Fuel oil (heavy oil, kerosene, etc.)	85 ML (3.1 PJ)	78 ML (2.9 PJ)	



Raw Materials Input

Materials: 3,193 kt

		FY 2015	FY 2016	
Materials	Metals		1,638 kt	2,710 kt
		New materials	—	1,497 kt
		Recycled materials, etc.	—	1,213 kt
	Plastics		149 kt	169 kt
		New materials	—	167 kt
		Recycled materials, etc.	—	2 kt
	Other materials		347 kt	314 kt
New materials		—	308 t	
	Recycled materials, etc.	—	6 kt	
Chemicals	PRTR substances*1 handled	177 kt	189 kt	
	Ozone-depleting substances handled	11 t	208 t	
	Greenhouse gas substances handled	3,791 t	3,425 t	

*1 PRTR substances: The 462 chemicals designated in Japan's Pollutant Release and Transfer Register (PRTR) Law.

Note: "—" in the FY 2015 column indicates items for which data collection began in fiscal 2016.



Total Water Input

Water use: 41.34 million m³

		FY 2015	FY 2016
Water provided by municipality or other sources	Tap water	5.65 million m ³	7.77 million m ³
	Industrial water, river water	20.13 million m ³	18.41 million m ³
Groundwater		18.13 million m ³	14.92 million m ³
Rain water		—	0.03 million m ³
Recycled water (recycled from the wastewater of other organizations)		—	0.21 million m ³

Note: "—" in the FY 2015 column indicates items for which data collection began in fiscal 2016.

► Total Output of Environmental Load

Environmental load output from Hitachi Group operations.



Greenhouse Gas Emissions

Greenhouse gases: 3,922 kt-CO₂e

		FY 2015	FY 2016
CO ₂ emissions	✓	3,085 kt-CO ₂	3,845 kt-CO ₂
Other GHGs	SF ₆ (sulfur hexafluoride)	56 kt-CO ₂ e	56 kt-CO ₂ e
	PFCs (perfluorocarbons)	4 kt-CO ₂ e	4 kt-CO ₂ e
	HFCs (hydrofluorocarbons)	16 kt-CO ₂ e	16 kt-CO ₂ e
	N ₂ O, NF ₃ , CH ₄	1 kt-CO ₂ e	1 kt-CO ₂ e

Notes:

- The CO₂ electrical power conversion factor uses the 2005 emission coefficients for individual countries published by the International Energy Agency (IEA) in the 2010 edition of *CO₂ Emissions from Fuel Combustion*.
- The gas and fuel oil conversion factor is based on the list of emissions and calculation methods published by Japan's Ministry of the Environment.



Total Volume of Waste and Valuables

Waste and valuables generation: 1,336 kt Nonhazardous: 1,309 kt (hazardous: 27 kt)*1

		FY 2015	FY 2016
Waste reduction		53 kt	68 kt (0.4)
Recycling	Reuse	3 kt	1 kt (0.4)
	Materials recycled	506 kt	1,001 kt (21.5)
	Thermal recovery	13 kt	12 kt (2.4)
Landfill		43 kt	254 kt (2.0)
Chemicals	PRTR substances discharged or transferred	4.4 kt	4.7 kt
	SO _x (sulfur oxides)	50 kNm ³	101 kNm ³ *2
	NO _x (nitrogen oxides)	350 kNm ³	488 kNm ³
	Ozone-depleting substances emitted (CFC-11, etc.)	1 t (0 t-ODP)*3	1 t (0 t-ODP)*3

*1 Waste materials that pose a threat to human health or the living environment. We dispose of all such materials in accordance with the laws and regulations of each country and region.

*2 Includes SO_x generated by a materials company that became a consolidated member of the Hitachi Group in fiscal 2016.

*3 ODP (ozone depletion potential): A coefficient indicating the extent to which a chemical compound may cause ozone depletion relative to the depletion for CFC-11 (trichlorofluoromethane, ODP = 1.0). The emissions factor uses the ODP and global warming potential of Japan's Ministry of the Environment.



Total Volume of Water Effluents Discharged

Water effluents discharged: 38.77 million m³

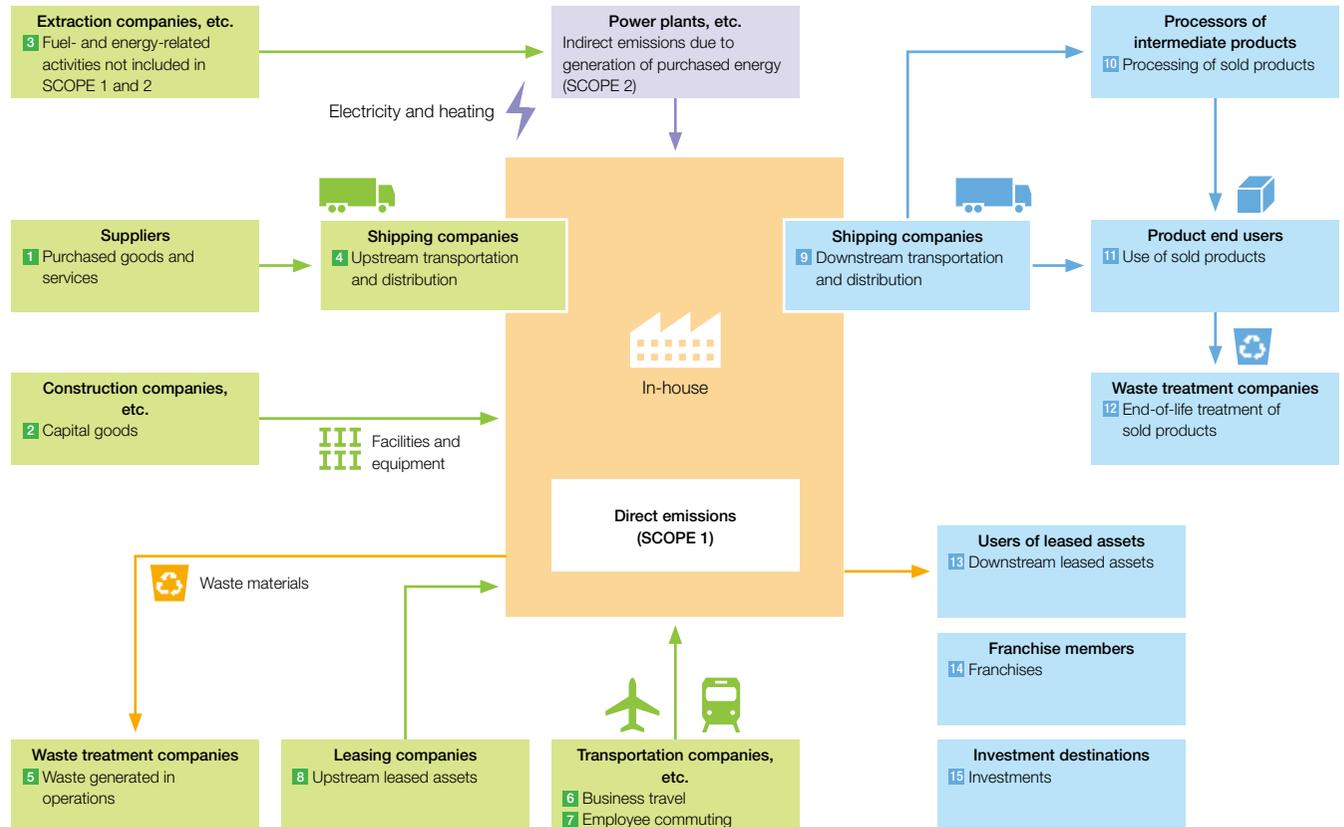
		FY 2015	FY 2016
Public water		27.36 million m ³	26.16 million m ³
Sewerage		9.37 million m ³	8.93 million m ³
Underground infiltration, evaporation, etc.		6.58 million m ³	3.68 million m ³
Water quality	BOD (biochemical oxygen demand)	433 t	446 t
	COD (chemical oxygen demand)	732 t	731 t

Environmental Load Through the Value Chain

Calculation of GHG Emissions Throughout the Value Chain

We calculate greenhouse gas (GHG) emissions throughout the entire value chain to more effectively reduce these emissions. As a substantial amount of emissions comes from use of the products we sell, we make an ongoing effort to reduce emissions by enhancing the efficiency and energy-saving features of our products and services during their use.

Categories of GHG Emissions in the Value Chain



SCOPE 1	SCOPE 2	SCOPE 3: Upstream	SCOPE 3: Downstream
Direct GHG emissions by the company	Indirect emissions from electricity, heat, and steam supplied to and used by the company	Other indirect emissions not covered by SCOPE 1 and 2, such as emissions by other entities related to the company's activities	

In-house: Within the scope of the company's organizational boundaries. In principle, the scope of all business activities of the company itself and activities within or controlled by its consolidated subsidiaries.

Upstream: In principle, activities related to purchased products and services.

Downstream: In principle, activities related to sold products and services.

GHG Emissions Throughout the Hitachi Value Chain

Category	Description	Calculation Results (Mt-CO ₂ e)
SCOPE 1^{*1}		
Direct emissions	Direct emissions from in-house fuel use and industrial processes	1.36 (1.1%)
SCOPE 2^{*2}		
Energy-related indirect emissions	Indirect emissions from production of electricity and heat purchased by the company	2.55 (2.1%)
SCOPE 3: Upstream (other indirect emissions)		
1 Purchased goods and services	Emissions from the resource extraction stage to the manufacturing stage, including raw materials, parts, supplied products, and sales	6.92 (5.5%)
2 Capital goods	Emissions generated in the construction, manufacture, and shipping of the company's own capital goods, such as equipment, devices, buildings, facilities, and vehicles	1.09 (0.9%)
3 Fuel- and energy-related activities not included in SCOPE 1 and 2	Emissions from procuring fuel necessary for electricity and other energy production, including resource extraction, production, and shipping	0.23 (0.2%)
4 Upstream transportation and distribution	Emissions from distribution of raw materials, parts, supplied products, and sales prior to delivery of materials to the company, as well as other distribution activities of products for which the company bears the expense	0.10 (0.1%)
5 Waste generated in operations	Emissions from transportation, disposal, and treatment of waste generated in the company's operations	0.11 (0.1%)
6 Business travel	Emissions generated from fuel and electric power used by employees for business travel	0.07 (0.1%)
7 Employee commuting	Emissions generated from fuel and electric power used in employee commuting	0.06 (0.0%)
8 Upstream leased assets	Emissions from the operation of assets leased by the company, excluding those counted in SCOPE 1 and 2	Included in SCOPE 1 and 2
SCOPE 3: Downstream (other indirect emissions)		
9 Downstream transportation and distribution	Emissions from transportation, storage, loading and unloading, and retail sales of products	0.01 (0.0%)
10 Processing of sold products	Emissions by downstream companies during processing of intermediate products	N/A ^{*3}
11 Use of sold products ^{*4}	Emissions from use of products by end users, such as consumers and businesses	110.94 (89.5%)
12 End-of-life treatment of sold products ^{*4}	Emissions from transportation, waste disposal, and treatment of products by end users, such as consumers and businesses	0.31 (0.3%)
13 Downstream leased assets	Emissions from operating assets owned by the reporting company as lessor and leased to other entities	0.03 (0.0%)
14 Franchises	Emissions by franchises under SCOPE 1 and 2	N/A
15 Investments	Emissions related to management of investments	0.10 (0.1%)
Total		123.88 (100%)

Note: Figures in parentheses are percentages of GHGs emitted throughout the value chain.

*1 Includes SF₆, PFC, HFC, N₂O, NF₃, and CH₄. The gas and fuel conversion factor is based on the list of emissions and calculation methods published by Japan's Ministry of the Environment.

*2 The CO₂ electrical power conversion factor used to calculate emissions uses the 2005 emission coefficients for individual countries published by the International Energy Agency (IEA) in the 2010 edition of *CO₂ Emissions from Fuel Combustion*.

*3 Cannot be determined due to insufficient information on processing.

*4 CO₂ emissions per unit is based on the Inventory Database for Environmental Analysis (IDEA), developed by the National Institute of Advanced Industrial Science and Technology (AIST) and the Japan Environmental Management Association for Industry (JEMAI).

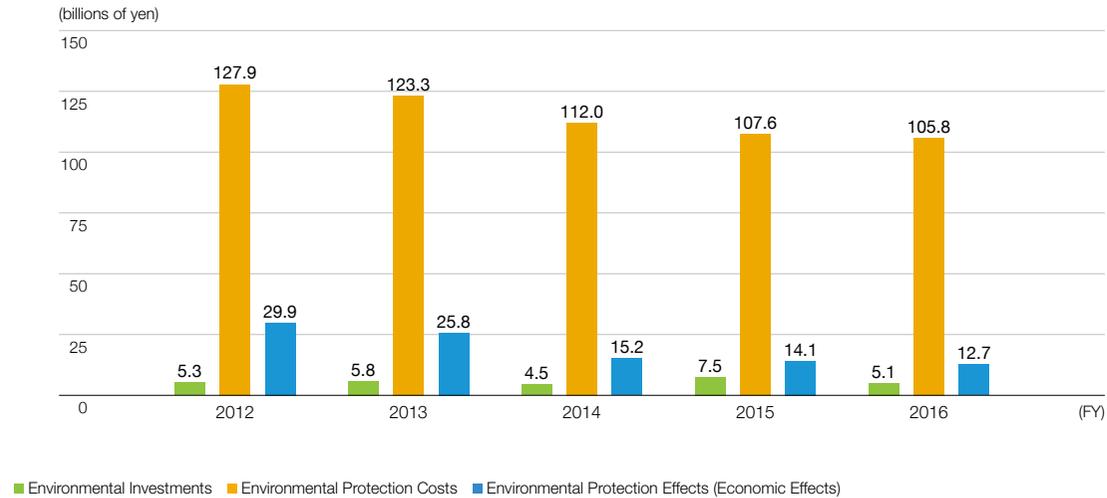
Environmental Accounting

Overview of Environmental Accounting

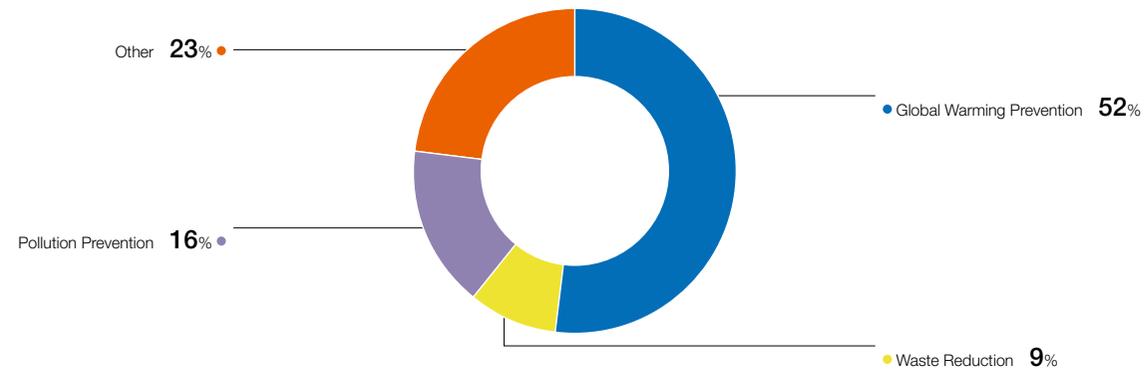
Hitachi has adopted and made public a set of environmental accounting procedures conforming to the Japanese Ministry of the Environment's Environmental Accounting Guidelines 2005. We have used the results of these procedures to raise the efficiency of our environmental investments and activities, more effectively allocating management resources to our ongoing environmental efforts.

Achievements

Environmental Investments, Environmental Protection Costs, and Economic Effects



Fiscal 2016 Environmental Investments by Countermeasure



Environmental Investments

		(billions of yen)				
	Description	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Total investment	Investment in energy-saving equipment and equipment that directly reduces environmental load	5.28	5.81	4.46	7.50	5.12

Environmental Protection Costs

		(billions of yen)				
Item	Description	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Expenses						
Business area	Maintenance costs for equipment with low environmental load, depreciation, etc.*1	31.84	38.63	26.90	24.22	19.19
Upstream/downstream	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses	1.38	1.27	1.09	0.97	0.63
Administration	Labor costs for environmental management, implementation and maintenance of environmental management system	7.67	6.77	6.47	5.97	5.12
Research and development	R&D to reduce environmental burden caused by products and production processes, product design expenses	84.71	75.62	76.12	75.71	79.64
Social activities	Planting, beautification, and other environmental improvement expenses	0.41	0.51	0.36	0.45	1.21
Environmental remediation	Environmental mitigation costs, contributions, and charges	1.90	0.53	1.03	0.27	0.22
Total		127.91	123.33	111.97	107.59	105.84

*1 Equipment depreciation costs are calculated using the straight-line method over five years.

Environmental Protection Effects

● **Economic Effects*1**

		(billions of yen)				
Item	Major FY 2016 Activities	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Net income effects	Recovering value from waste by sorting and recycling	17.85	15.98	7.54	7.27	4.96
Reduced expenses effects	Installing high-efficiency equipment (lighting, power supply)	12.07	9.82	7.65	6.78	7.77
Total		29.92	25.80	15.19	14.05	12.72

*1 Economic effects include:

- Net income effects: Benefits with real incomes, including incomes from the sale of resalable materials and incomes from environmental technology patents.
- Reduced expenses effects: Reduction in electricity, waste treatment, and other expenses through environmental load reduction activities.

● **Physical Effects*1**

		(million kWh)				
Item	Major FY 2016 Activities	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Reduction in energy used during production	Installing LED lighting, upgrading air-conditioning equipment, etc.	107	70	68	59	51

*1 Equipment depreciation costs are calculated using the straight-line method over five years.

Environmental Liability

We have appropriated 10.05 billion yen in expenses for the disposal of PCB-containing waste and 1.57 billion yen to clean up contaminated soil as the amounts that we can reasonably project as of March 2017 as future environmental liabilities.