



Management Approach

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Environment Promoting Environmental Management

Promoting Environmental Management

Hitachi's Approach

Hitachi faces a broad range of challenges regarding its products and services, such as reducing carbon emissions and improving resource efficiency across the value chain. At the same time, given the expectations of society, innovations that help resolve environmental issues present major business opportunities.

Guided by our Environmental Vision, we have formulated a set of long-term environmental targets called Hitachi Environmental Innovation 2050 to guide our environmental initiatives from a broader and longer-term perspective. The Environmental Action Plan for 2018 lays out specific activity areas and improvement targets for achieving our Environmental Vision and long-term environmental targets. Aligning this with the 2018 Mid-term Management Plan, we will promote Group-wide efforts to achieve the targets set forth in the Environmental Action Plan, thereby practicing environmental management in a manner that meets the expectations of society.

Hitachi's Environmental Vision and Long-Term Environmental Targets

Hitachi's Environmental Vision

As global warming, resource depletion, ecosystem destruction, and other environmental issues grow more serious, companies face increasing demands and expectations to reduce the environmental burden of their business activities.

The Intergovernmental Panel on Climate Change (IPCC) concluded in the Synthesis Report of its *Fifth Assessment Report*, issued in November 2014, that limiting global warming "below 2°C relative to pre-industrial levels" would require "40 to 70% global anthropogenic GHG emissions reductions by 2050 compared to 2010." The Paris Agreement adopted in December 2015 at the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change set ambitious targets, including a global long-term target of keeping global warming to below 2°C and efforts to limit the increase to 1.5°C. Long-term environmental targets have also been set in the Sustainable Development Goals (SDGs)—the centerpiece of the 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015.

In the light of these global trends and our own management policy, we created an Environmental Vision to better define the kind of society that Hitachi envisions from a long-term perspective.

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.

Setting Long-Term Environmental Targets: Hitachi Environmental Innovation 2050

Our Environmental Vision envisions a low-carbon society; a resource efficient society; a harmonized society with nature. To achieve such a sustainable society, we have reviewed the contents of our long-term Environmental Vision 2025, which we have been promoting until now, and newly established a set of long-term environmental targets called Hitachi Environmental Innovation 2050.

Hitachi Environmental Innovation 2050

Low-carbon society

Achieve 50% reductions in CO₂ emissions by fiscal 2030 and **80% reductions** by fiscal 2050 across the value chain (compared to fiscal 2010)

Resource efficient society

- **Build a society that uses water and other resources efficiently**
- **Achieve 50% improvement** in usage efficiency of water and other resources by fiscal 2050 (compared to fiscal 2010 in the Hitachi Group)

Harmonized society with nature

- **Minimize** the impact on natural capital



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Low-carbon society

The target aims for an 80% reduction in CO₂ emissions compared to fiscal 2010 levels by fiscal 2050, going over and beyond the targets set forth in the IPCC's *Fifth Assessment Report*. We will reduce CO₂ emissions arising from the use of Hitachi's products and solutions, which account for over 90% of emissions in our value chain. We will contribute to our customers and society by developing innovative technologies and solutions, as well as enhancing the efficiency of our products and supplying low-carbon energy. At the same time, we will also work to cut down on emissions at the *production* stage.

Resource efficient society

Together with our customers and society, we will do our utmost through our business operations to help build a society that uses water and other resources efficiently. We will expand circulative use of water by further advancing the entire range of water treatment technologies involved in water use from seawater desalination and other forms of fresh water generation to sewage treatment.

We will also improve our usage efficiency of water and other resources by 50% compared to fiscal 2010 levels by fiscal 2050. To that end, we will create products that last longer and use less resources, make thoroughgoing efforts to collect and recycle used products, reduce the volume of water used in the production process as well as purifying and reusing water, and engage in other efforts.

Harmonized society with nature

We will strive to minimize Hitachi's impact on natural capital, which bestows the benefits of nature on humankind. We will assess ecosystem impact and advance measures to minimize the burden at each stage of Hitachi's value chain. Moreover, we will preserve the ecosystem through our products and services, such as our air and water purification systems and environmental monitoring systems. We will also endeavor to minimize the environmental burden of our factories and offices.

The Hitachi Action Guidelines for Environmental Conservation

The Action Guidelines for Environmental Conservation were drawn up to show the direction of our business management initiatives for environmental protection as we set out to realize the Hitachi Environmental Vision.

The Hitachi Action Guidelines for Environmental Conservation

Environmental Action Plan for 2018

Hitachi is pressing forward with activities in accordance with its Action Guidelines for Environmental Conservation in order to achieve its Environmental Vision and its Hitachi Environmental Innovation 2050 long-term environmental targets. Toward this end, we are steadily promoting environmental activities through the implementation and sustained improvements of the detailed environmental initiatives and targets set forth in our Environmental Action Plan. To give our environmental strategy a more prominent role in our management strategy, we revise the Environmental Action Plan every three years to align it with the Mid-term Management Plan for the Hitachi Group.

In keeping with the 2018 Mid-term Management Plan, which begins in fiscal 2016, we have formulated the Environmental Action Plan for 2018 with a view to further reinforcing our environmental activities from a global perspective. We will advance our environmental activities over the next three years through fiscal 2018 under this plan.

Environmental Action Plan for 2018: Targets

Under the Environmental Action Plan for 2018, the following main targets have been established for fiscal 2016, which is the first year of the plan, and fiscal 2018, the final year.

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Items	Indicators	Fiscal 2016 targets	Final fiscal year (2018) targets
Strengthen global environmental management	Voluntary implementation of environmental monitoring by business units and Group companies at overseas business sites (implementing sites/total targeted)	20%	80% or higher (cumulative total)
Raise the level of environmental activities	Green points (GPs) under the GREEN21-2018 environmental activity index	240 GPs	480 GPs

Products and Services

Item	Indicator	Fiscal 2016 target	Final fiscal year (2018) target
Improve environmental performance	Rate of reduction in CO ₂ emissions from use of products and services (base: FY 2010)	30%	40%

Factories and Offices: Prevent Global Warming

Item	Indicator	Fiscal 2016 target	Final fiscal year (2018) target
Reduce energy use	Reduction in energy use per unit (base: FY 2005)	15%	17%

Factories and Offices: Use Resources Efficiently

Items	Indicators	Fiscal 2016 targets	Final fiscal year (2018) targets
Reduce waste generation	Reduction in waste and valuables generation per unit (base: FY 2005)	12%	14%
Enhance efficiency of water usage	Reduction in water use per unit (base: FY 2005)	23%	27%



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Factories and Offices: Manage Chemical Substances

Item	Indicator	Fiscal 2016 target	Final fiscal year (2018) target
Reduce emissions of chemical substances	Reduction in atmospheric emissions of chemical substances per unit (base: FY 2006)	34%	36%

Ecosystem Preservation

Item	Indicator	Fiscal 2016 target	Final fiscal year (2018) target
Contribute to ecosystem preservation	New ecosystem preservation activities implemented	30	600

Partnership with Stakeholders

Item	Indicator	Fiscal 2016 target	Final fiscal year (2018) target
Make social contributions through environmental activities	Activities implemented in such areas as environmental education, information exchange, ecosystem preservation through afforestation, etc., community contribution through cleanup projects, etc., campaigns to turn off lighting, and community energy-saving activities	800	2,400 (cumulative total)

Products and Services

Hitachi will launch new initiatives in fiscal 2016 to help address environmental issues through the development and popularization of products and services of high environmental value.

Until now, we have been promoting the development and expansion of environmentally conscious Eco-Products. To turn environmental value into the creation and expansion of business opportunities, however, it is important to indicate more clearly how this leads to added value for our customers. This is why the Environmental Action Plan now calls for improvements in the environmental performance of Hitachi products and services. The reduction rate of CO₂ emissions from the use of our products and services and the reduction rate of resource use over the life cycle of products and services are now used as indicators for achieving both functional improvements and reduced environmental burden in products and services. We now seek to achieve a target of a 40% reduction in CO₂ emissions compared to fiscal 2010 levels by fiscal 2018 for products that contribute highly to the resolution of environmental issues.

Thanks to the use of the Assessment for DfE (Design for Environment) to evaluate the conformity of our products and services with standards for environmentally conscious design, moreover, the percentage of Eco-Product sales in total product sales exceeded 95% in fiscal 2015. This is an indication that the initiative for environmentally conscious

Eco-Products has sufficiently taken root. To take our environmental considerations to an even higher level, we have formulated a new Environmentally Conscious Design Assessment based on the IEC 62430*1 international standard. Beginning in fiscal 2016, we will carry out Environmentally Conscious Design Assessment on products and services involving a design process in our design and development activities.

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

Factories and Offices

Hitachi engages in efforts to reduce the environmental burden of its operations through the efficient use of energy and resources in the production process. We have created key performance indicators (KPIs) for energy usage, as well as to gauge our operational efficiency in terms of improved ratios of waste volume, water usage, and atmospheric emissions of chemical substances per unit, and are systematically working to achieve our targets while regularly monitoring our progress in each of these areas.

In addition to continued efforts encouraging factories and offices to have a high level of environmental consciousness, the Environmental Action Plan for fiscal 2016 to 2018 includes new targets reflecting emerging social concerns. By setting these targets, we aim to promote manufacturing activities with less environmental burden on a global basis.

With respect to the target of mitigating global warming, we will curb CO₂ generation by installing more energy-efficient equipment and increase renewable energy use. To meet the target of making more effective use of resources, and address environmental problems caused by natural resource depletion and waste materials, we will work to reduce the volume and promote the recycling of waste generated by our business activities, thereby contributing to the formation of a resource-efficient society. To deal with water-associated risks, meanwhile, we will increase the efficiency of water usage by gaining an accurate grasp of current conditions and enhancing water risk management. And for the target of appropriate management of chemical substances, we will minimize emissions of substances that affect humans and ecosystems by improving production processes and switching to alternative substances. At companies that have newly joined the Hitachi Group, we will reduce their environmental burden and promote environmentally conscious production by sharing these goals with them and applying the goals to their operations.