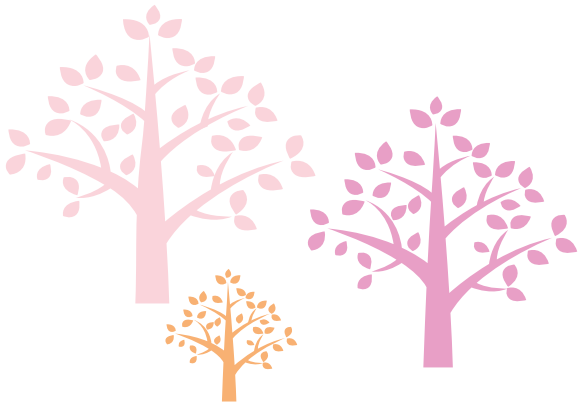
HIROSE ELECTRIC CO.,LTD.



SUSTAINABILITY REPORT 2019



Editorial Policy

Hirose Electric and its group companies are undertaking CSR activities to implement their policy of promoting environmental protection and compliance. This report has been compiled to present information about these activities in a way that is easy for our stakeholders to understand. It is also posted on our website to make it accessible to many people both in Japan and abroad.

Period covered by this report

From April 1, 2018 to March 31, 2019

Companies covered by this report

Hirose Electric Co., Ltd.
Tohoku Hirose Electric Co., Ltd. (Miyako Factory)
Koriyama Hirose Electric Co., Ltd. (Koriyama Factory)
Ichinoseki Hirose Electric Co., Ltd. (Ichinoseki Factory)
*The activities of some of our overseas production sites are also covered in this report. As of Sustainability Report 2015, CO_2 emissions by overseas sites and our business partners, both within and outside of Japan are presented.

Date of publication

July 2019

This report refers to the following guidelines

Ministry of the Environment:
Environmental Reporting Guidelines (Fiscal Year 2018 Version);
GRI Sustainability Reporting Guidelines (Version 4).

Notations

For simplicity, the following names have sometimes been abbreviated as follows: Tohoku Hirose Electric Co., Ltd. is referred to as the "Miyako Factory," Koriyama Hirose Electric Co., Ltd. as the "Koriyama Factory," and Ichinoseki Hirose Electric Co., Ltd. as the "Ichinoseki Factory."

Disclaimer

This report includes not only past factual information but also plans and forecasts that were formulated at the time of publication. These data or statements were considered reasonable at the time of writing based on the currently available information, and thus the outcomes of our future activities may differ from what is described in this report.

CONTENTS

02 Message from the Top
03 Company Profile
- Company Profile
- Business Summary

04 Promotion of CSR Activities
- CSR of the Hirose Electric Group
- Results of Fiscal Year 2018 and Targets for Fiscal Year 2019

11 Basic Environmental Policy
- Basic Environmental Policy

12 Contributions of connectors to environmental protection
- Detachability of connectors
- Application fields of connectors

13 Environmental Management
- Environmental Management Structure
- ISO14001 Certifications
- SDGs Related to Environmental Protection Activities
- Compliance with Laws and Regulations
- Environmental Audit
- Environmental Education
- Environmental Impacts due to Business Activities
- Environmental Objectives and Level of Achievement

19 Activities to Reduce Environmental Impacts
- Reduction of Energy Consumption
- Reduction of Greenhouse Gas Emissions
- Reduction of Water Usage
- Reduction of Paper Usage
- Reduction of Waste and Recycling
- Activities for recycling sold products
- Reduction of Environmental Impacts through Green ICT
- Reduction of Environmental Impacts on Living Environment
- Preparedness for Emergencies
- Biodiversity Conservation

28 Communication
- Social Action Programs
- Communication with Stakeholders

30 Activities at Group Sites to Reduce Environmental Impacts
- Activities of Domestic Factories to Reduce Environmental Impacts
- Activities of Overseas Sites to Reduce Environmental Impacts

35 History of Social and Environmental Activities
- History of Social and Environmental Activities

36 Third-party Opinion /Response to the Third-party Opinion

Message from the Top



We are undertaking CSR and environmental activities through bringing together the knowledge and wisdom of many people.

Kazunori Ishii
President and
Representative Director

Ever since it began to develop industry-leading connectors with its own technologies, Hirose Electric has established a position that has earned it trust and recognition as a specialized manufacturer of connectors. On a personal note, and on behalf of the entire company, I would like to express our deep gratitude to our customers and business partners. Without their ongoing support, we would not be where we are today.

Hirose Electric and its group companies adhere to a guiding philosophy of being a small company that brings together the knowledge and wisdom of many people, i.e., "a small company connecting wisdom." This concept encapsulates our wish to creating innovative products by open-mindedly garnering advice from the outside world and linking the wealth of information offered by external sources with the knowledge and insight that we have accumulated internally, together with our aim of placing high value on close-knit, agile and efficient communication, which is only possible in a small company, and to be an enterprise that is constantly seeking to make quantum advances.

Corporate Social Responsibility (CSR) and Environmental Activities

Through our sales of connectors, which are our main products, Hirose Electric and its group companies have been helping our customers around the world save energy. Believing that connectors can help save energy because their detachability enhances users' productivity and facilitates transportation of their products, we have incorporated this concept into our new Basic Environmental Policy, and we are conducting our business based on this new policy.

In order to reduce environmental impacts, we are progressively reducing energy consumption and waste generation per unit of sales. We have adopted a goal of reducing energy consumption per unit of sales by 1% of the 2012 level for each year up to 2020. Although we did not meet our energy target in fiscal year 2018 due to the addition of facilities, we were active in installing solar power generation facilities and switching to high-efficiency air conditioning. Likewise, in fiscal year 2019, we will continue our activities as part of our medium- to long-term plan.Our activities for conserving biodiversity include annual provision of e-learning to all employees. This is aimed at encouraging them to voluntarily undertake environmental activities. With a view to manufacturing products with low environmental impacts, we are strengthening our quality management by conforming to chemicals-related laws and regulations, which are becoming more stringent with every passing year, and by rapidly responding to requests from our customers.

In addition, we have established a CSR Committee, which consists of full-time directors and executive officers, to ensure that the objectives of CSR are integrated into all activities.

As a company involved in international business, we will continue to strengthen our CSR and environmental activities.

Publication of Sustainability Report 2019

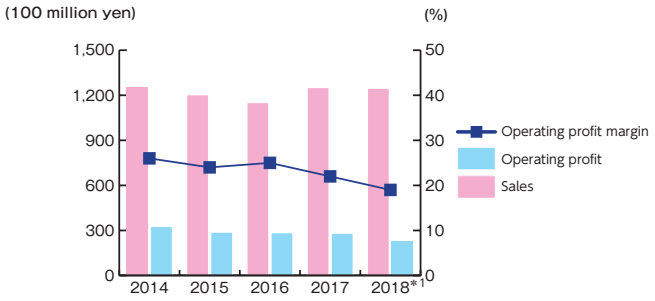
Hirose Electric and its group companies have produced the Sustainability Report 2019 in order to present our CSR and environmental activities to stakeholders and the general public in a clear and straightforward manner. We would appreciate it if you would read this report and give us your frank opinions so that we can continue to improve our activities in these areas.

Company Profile

Company Profile

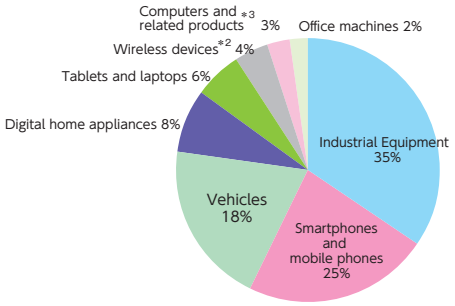
Name: Hirose Electric Co., Ltd.
Founded: August 15, 1937
Paid-in capital: 9,404,000,000 yen
Sales: 124,590,000,000 yen
(for the year ended March 31, 2019/Consolidation)
Operating profit: 23,157,000,000 yen
(for the year ended March 31, 2019/Consolidation)
Number of employees: 4,836
(for the year ended March 31, 2019/Consolidation)
Address of Head Office:
5-23, Osaki 5-chome, Shinagawa-ku, Tokyo 141-8587, Japan
Number of subsidiaries:
3 in Japan, and 13 outside Japan

Changes in sales and profit



＊1 Conforms with the International Financial Reporting Standards (IFRS) from fiscal year 2018.

Breakdown of sales by application area



＊2 Wireless devices: Wireless communication devices excluding smartphons and mobile phones.
＊3 Communications devices: Laptops are excluded.

Business Summary

From the time they developed Japan's first one-of-a-kind connectors in Japan in 1959, Hirose Electric and its group companies (hereinafter referred to as the Hirose Electric Group) have been leading the industry in technology as a development-oriented enterprise. Our great strength has been industrial connectors, which are more difficult to develop than connectors for household use. Building on the technical know-how we had accumulated in this area, we entered the consumer products market in the recent past, and have been expanding the range of market segments in which we do business. We have received high recognition both within and outside Japan. The Hirose name is evolving into a global brand for connectors based on their capacity to meet a diverse range of international requirements.

【Business Areas】



Industrial/Medical equipments and Others



Smartphone/Wearable devices



Communication devices



Vehicles



Consumer/Computer peripheral devices

Promotion of CSR Activities

CSR of the Hirose Electric Group

The Hirose Electric Group has incorporated its existing activities related to environmental preservation and compliance into its Corporate Social Responsibility (CSR), and will promote CSR as its main policy.

Code of Conduct

In pursuing our business activities, we are required not only to comply with laws and regulations but also to exercise our discretion informed by a higher sense of ethics, integrity and social responsibility. To enable our employees to exercise the above in every situation, in an ever-changing business environment, we have defined the following Code of Conduct to which every member of the Hirose Electric Group must adhere. We will continuously review and improve the contents of the Code of Conduct, which currently include:

1. Our Attitude in Business
2. Relations with Society
3. Relation between Personnel and Workplace
4. Management of Company Assets and Information
5. Scope of Application and System for Promotion
6. HRS Group Basic Policy on Antisocial Forces
7. HRS Group Privacy Policy
8. HRS Group Safety and Health Policy
9. HRS Group Basic Policy on Anti-Bribery
10. Facilitation Payments
11. HRS Group Basic Policy on Labor Management
12. HRS Group Basic Policy for Information Security
13. HRS Group Sourcing Policy for Conflict Minerals
14. HRS Group basic Policy on Corporate Ethics Management

Participation in the UN Global Compact

On February 9, 2012, Hirose Electric and its group companies expressed their support for the "Global Compact" advocated by the United Nations, and were registered as participating companies. The Global Compact is a voluntary initiative in which each company provides creative and responsible leadership, acts as a good corporate citizen and participates in the development of a global framework for realizing sustainable growth. Companies participating in the Global Compact consent to support and abide by the ten essential principles of CSR that cover the protection of human rights, the elimination of all forms of unfair and unjust labor practices, the protection of the environment, anti-corruption measures, and are pledged to carry out activities to realize the above with the commitment of their chief executive.

Participation in the UN Global Compact prompted the Hirose Electric Group, as a good global citizen, to strengthen its ongoing CSR activities in order to contribute to the development of a sustainable society.

Social Responsibilities

The Hirose Electric Group has established a CSR and Risk Committee, consisting of full-time directors and executive officers. The committee makes decisions on important matters concerning CSR. Furthermore, we have appointed a person to be responsible for CSR and Risk.

Permanent organizations such as Environmental Management Committee, and Quality Control Committee and their subsidiary organizations are promoting matters specific to CSR.



CSR promotion meeting

CSR Management

The CSR management of the Hirose Electric Group is founded on three principles: corporate governance, compliance, and risk management.

【Corporate governance】

We place the highest priority on strengthening our corporate governance in order to maintain and enhance our long-term competitiveness in the global market. We are also working to increase our corporate value by streamlining our business management and augmenting our profitability while discharging our social responsibilities to stakeholders.

As part of our commitment to ensuring the integrity of our business decisions, Hirose Electric has invited four independent people from outside the company to serve on the board of directors or as auditors. From an objective standpoint, they oversee our business management practices and provide useful advice from a range of perspectives.

Hirose Electric Group's CSR management



【Compliance】

The Hirose Electric Group fully recognizes the importance of fulfilling its social mission and corporate responsibilities in the course of its business activities. This is achieved by implementing management policy that is based on the company's core principles. To meet these responsibilities in all situations in the constantly evolving management environment, we have carefully formulated our guiding principles and criteria for action. These are contained in the Hirose Electric Group Code of Conduct issued in March 2004, and every employee is expected to follow it.

Being a global enterprise, we revised this code of conduct in 2007 to make it applicable to those working at our overseas sites. At the same time, to ensure that the code was understood and observed at these sites, it was translated into English, Chinese and the other languages spoken in all the areas in which we operate. We have been successively revising the HRS Code of Conduct, including addition of a supplementary policy.

Based on the code, we have been providing ongoing compliance education to ensure that every employee conducts themselves honestly and meets the highest ethical standards.

We introduced a whistle-blowing system in 2008.

【Risk management】

To address a variety of risks that may affect the Hirose Electric Group, we established a Risk Management Committee, which consists of full-time directors and executive officers, and relevant organizations that report to it. We share information about risks associated with our business activities, and implement risk management.

As a risk management measure, we formulated our Business Continuity Plan (BCP) in 2009. The types of risk assumed in the BCP include new strains of influenza in addition to major earthquakes and fires. The BCP describes in detail the measures to be taken to prevent or mitigate operational risks so that our business can continue to operate or quickly resume operations in the event of an emergency or a disaster. This plan is distributed to all employees.

We also established our Information Security Policy in 2008. We regularly provide e-learning opportunities to our employees and others who handle information about the Hirose Electric Group so that everyone concerned will observe this policy in their business activities.

Social Responsibilities

The Hirose Electric Group considers it important to assume the five social responsibilities shown in the following figure.



【Responsibilities to our customers (guaranteeing product quality)】

The responsibility of the company and its employees is to provide high-quality and highly value-added products that meet the needs of our customers. This concept is incorporated in our "Quality policy" and is observed by all employees.

Quality Policy

1. Abide by the "QUALITY FIRST" policy and always be committed to advance customer's satisfaction.
2. Proactive approach towards QUALITY needs of market and developing new products accordingly.
3. Aim to be an industry leader by continuous & reliable QUALITY improvement.

For the purpose of always delivering valuable products to customers, we have established a quality management system that covers all activities (planning, design, production, distribution, and service, in connection with products) and work to improve quality every day.

We sell as many as fifty-something thousand kinds of products, many of which are constantly revised into new products. By establishing a unique development system, in which even engineers actively visit customers in order to keep up with customers' current needs, and by having not only the Technical Section but also the Production Techniques, Production, Purchase, and Quality Assurance Sections join the development team, we aim to supply high-value added products that will satisfy customers, in a short development period.

The policies, strategies, and goals concerning quality, as well as important measures for quality improvement, are discussed and determined in Quality Management meetings. Quality goals, when incorporated into management policies, are made known to each employee of each section, and continuous quality improvement is being promoted under the guidance of the top management.

Furthermore, we are engaged in various quality improvement activities for the purpose of realizing strong workplaces in which employees can think and solve problems all by themselves.

【Responsibilities to our suppliers and contractors】

We have formulated the Green Procurement Guidelines and the Purchase Management Rules to ensure that we procure raw materials and equipment that are free from harmful substances, and build a strong partnership with our suppliers so that we work with them closely in our business operations. We also request our suppliers to establish their own CSR systems.

【Responsibilities to our employees】

We provide education and trainings in a planned and consistent manner for the purpose of cultivating human resources who understand our management principles, firmly collaborate in achieving our goals, and are active globally. We provide language trainings (especially English training) for the purpose of our employees' language development and send our employees to work overseas through overseas study programs, etc., thereby actively cultivating human resources who can work globally.

In addition, we make efforts to create workplace environments that are considerate of our employees' safety and physical/mental health, and take measures for prevention of disasters and to respond to emergencies. Every year, we conduct workplace patrol and risk assessment at every office in order to detect and prevent potential dangers hidden in the workplace. In addition, we continue to provide trainings on safety.Furthermore, toward preventing traffic accidents involving company cars and offices that permit commuting by car, we conduct safe driving trainings at each office with the help of the local police station, trying to make our employees conscious about safe driving.





Training camp for new recruits

We encourage our employees to have and follow up the results of routine physical examinations and complete medical checkups. Recently, we have established a consulting system in which our employees can consult our contracted industrial physicians and counselors, and we have begun to provide training sessions for managers, as measures for mental healthcare. Since 2016, we have been conducting stress checks among employees.

With regard to fire prevention, we have established a self-defense fire-fighting team at every office and conduct an emergency drill, including escape, notification, and initial firefighting, with the help of the local fire department every year.

【Responsibilities to our stockholders and investors】

To ensure that the company's accountability obligations are satisfied, and to maintain a high level of management transparency for stockholders, investors and other stakeholders, we are disclosing required information accurately, on a timely basis, and in a fair manner. In addition, we are providing appropriate information at financial results briefing sessions and through our website in accordance with our information disclosure policy.

【Responsibilities to the general public and local community】

We have defined the Hirose Electric Group Code of Conduct, which requires us to interact with local communities, and, in the international sphere, respect the culture and customers of the countries in which we operate, and contribute to the development of these countries. All our employees are working in accordance with this code of conduct. In addition, we are providing extensive support for art and cultural activities. Hirose International Scholarship Foundation, in which the President and Representative Director of our company serves as director, provides scholarships to students from other Asian countries.



Scholarship students exchange meeting

Responsibilities to our customers (guaranteeing product quality)

Development of Products that are Eco-friendly and Comply with Laws and Regulations

Development of Eco-friendly Products

The Hirose Electric Group provides eco-friendly connectors, designed with due consideration given to product lifecycles, to customers engaged in a wide variety of fields, including mobile devices, communications and broadcasting, computers, automobiles, consumer electronics, and measurement and control. In every one of those fields, we have minimized connector sizes. This contributes, in turn, to miniaturization of the customers' products and to overall savings in use of resources, from components through finished products. We display details of materials used in and on our packaging materials, such as embossed carrier tapes and reels, to facilitate recycling of such materials.We are also making our connectors more energy-efficient and easy to disassemble and recycle.

Compliance with Laws and Regulations

The Hirose Electric Group is strengthening its quality control by responding rapidly to revisions of laws governing chemicals contained in products and the resulting changes in customer requirements, both of which are becoming increasingly stringent, year on year.

During product design, we select eco-friendly parts and materials that comply with our green procurement guidelines. At every important stage in the development process, we ascertain that the product concerned both satisfies customer requirements and complies with relevant laws and regulations.



Design review (Mass production DR)

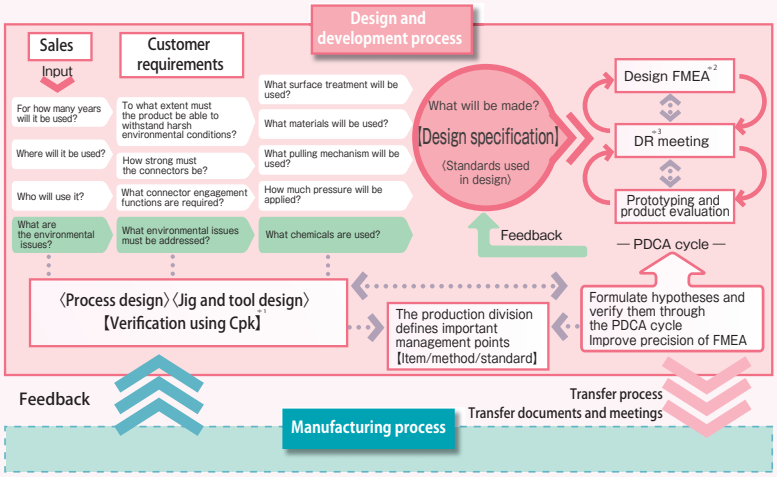
We started to bring our activities into line with the RoHS directive*1 in 2005. On June 4, 2015, a revised directive with four prohibited substances added was promulgated, and we completed the build of a preparation and warranty system for substitute products by July 2018, which is one year before the enactment of the law.

Ever since a list of substances of high concern (SVHC) associated with the REACH regulation*2 was first released in November 2008, we have been meeting the compliance requirements for substances on the list, which is updated frequently, and publicly disclosing information regarding chemicals used in our products, in response to customer requests.

* 1 RoHS directive: This was promulgated on February 13, 2003 and enforced on July 1, 2006 by the European Union (EU). This directive restricts the use of six specified toxic substances in electric and electronic products: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), and polybrominated diphenyl ether (PBDE).
* 2 REACH regulation: Regulation concerning registration, evaluation, authorization and restriction of chemicals, promulgated on December 30, 2006 and enforced on June 12, 2007. This regulation prohibits selling products that contain unregistered chemicals within the European Union. It also includes regulations governing the conduct of producers and importers, and the supplier's obligation to make relevant information public.

Design Review

In line with our quality standards, we check to ensure that each product meets customer requirements, complies with relevant laws and regulations, and is designed with due consideration for the environment. Three-dimensional graphics are used to improve design review efficiency and reduce paper consumption. This also leads to reductions in development periods and costs.



* 1 Cpk: Process capability index
* 2 FMEA: Failure mode and effect analysis
* 3 DR: Design review

Results of Fiscal Year 2018 and Targets for Fiscal Year 2019

The following table shows the results of fiscal year 2018 and the CSR targets of the Hirose Electric Group for fiscal year 2019. The results are evaluated using a three-grade scale: (○: targets achieved; △: relevant activities in progress; and ×: targets not yet achieved). We will continue these activities in order to fulfill our social responsibilities.

Item	Issue	Targets for fiscal year 2018	Results of fiscal year 2018	Evaluation	Targets for fiscal year 2019
1.Responsibilities to customer	Strengthen the organizational structure for the promotion of CSR	By strengthening the CSR management system, we will aim to make a system that will enhance PDCA in more detail.	We organized the company rules related to the CSR management system, and established a system that enhances PDCA based on those rules.	○	Maintain the CSR management system and enhance PDCA to make improvements.
	Deal with conflict minerals	Continue approaches according to the policy on conflict minerals that have been made public by the company, and try to raise awareness in employees.	We continued to raise awareness of conflict materials in employees, as well as keeping our suppliers informed.	○	Continue approaches according to the policy on conflict minerals that have been made public by the company, and try to raise awareness in employees.
	Enhance customer satisfaction	Make more visits to customers' companies to grasp their needs. Make further improvements in products and services provided to customers.	We planned on making regular visits to key customers, but we did not do some of the regular visits.	△	Deepen our understanding of how our customers are using Hirose Electric products, and utilize that for product design and addressing inquiries.
2.Responsibilities to suppliers	Promote CSR procurement	Keep up efforts in asking suppliers and contractors for their input in our CSR activities so that the whole supply chain could work in progression together.	We requested our suppliers and contractors to understand the content of the policies of the various CSR-related activities, but our efforts have been somewhat insufficient.	△	Keep up efforts in asking suppliers and contractors for their input in our CSR activities so that the whole supply chain could work in progression together.
	Request partner companies to adopt BCP	Confirm ways to correspond if production facilities do not function in suppliers' business continuation plan, and ask for measures to correspond.	We have only confirmed for some suppliers.	△	Continuously confirm the business continuity progress status of suppliers, and ask for measures to correspond if production facilities do not function.
3.Responsibilities to employees	Share our core values	Continue the group's activities for promoting understanding and implementation of our core values based on our philosophy.	Study groups were jointly held in several departments to promote understanding in more diverse situations.	○	Continue the group's activities for promoting understanding and implementation of our core values based on our philosophy.
	Foster globally adaptable human resources	Strengthen activities to foster globally adaptable human resources through personnel and language training.	We have conducted training to foster globally adaptable human resources and language training in accordance with our annual training schedule.	○	Continue the group's activities for promoting understanding and implementation of our core values based on our philosophy.

Item	Issue	Targets for fiscal year 2018	Results of fiscal year 2018	Evaluation	Targets for fiscal year 2019
3.Responsibilities to employees	Promote compliance	Continuously disseminate information on compliance to enhance awareness.	Five e-mail newsletters focusing on compliance have been sent per year.	○	Continuously disseminate information on compliance to enhance awareness.
		Continue to execute self checks in order to identify and solve problems.	Annual self-check carried out during Corporate Ethics Month (December).	○	Continue to execute self-checks in order to identify and solve problems.
		Continue to conduct training on harassment.	We have conducted training on harassment.	○	Continue to conduct training on harassment.
	Promote industrial safety and health	Continue industrial safety and health activities, including those at overseas factories.	Each business establishment, including each overseas factory, has formulated an annual plan on safety and health, and improved the plan by periodically checking its execution.	○	Continue industrial safety and health activities including at overseas factories.
	Adopt BCP in overseas factories	Study measures for resolving issues related to product supply in times of emergency, including those at overseas factories, and establish an organizational structure for supply.	We sorted out the issues related to product supply in general, however, some specific measures have not been put in place, including for overseas factories.	△	Study measures for resolving issues related to product supply in times of emergency, including those at overseas factories, and establish an organizational structure for supply.
4.Responsibilities to stockholders and inbestors	Promote IR activities	Further strengthen and improve IR activities including providing our investors with information through quarterly financial results briefing sessions and disclosing information in a timely manner through our website, as well as providing information to individual investors.	We have striven to provide our investors with information continuously through quarterly financial results briefings and tried disclosing timely information through our website, as well as provide information to individual investors.	○	Further strengthen and improve IR activities including providing our investors with information through quarterly financial results briefing sessions and disclosing information in a timely manner through our website, as well as providing information to individual investors.
5.Responsibilities to the general public and local communities	Promote social action programs	Continuously carry out social action programs.	Each business establishment has continued to participate in activities involving local communities.	○	Continuously carry out social action programs.

Basic Environmental Policy

Basic Environmental Policy

Having been incorporated into a myriad of electronics devices, connectors from Hirose have become an integral part of people's lives domestically and overseas. As we consider preservation of the global environment to be one of the primary responsibilities of a corporation that manufactures products that are distributed worldwide, the Hirose Electric Group formulated its Basic Environmental Policy in 2001. A revised version was released on April 1, 2011, adding our commitment to the preservation of biodiversity, as we also hold this to be an important facet of corporate responsibility.The latest revision was made on January 18, 2016 to accommodate the revision of ISO 14001.

Our current environmental activities are based on this policy.

Basic Environmental Policy

January 18, 2016
President
Hirose Electric Co., Ltd.

As is fitting for a company whose slogan is "Creative Links to World Electronics," the Hirose Electric Group recognizes the importance of preserving the global environment as one of the basic business challenges associated with its global ambitions. We will therefore promote corporate activities that give full consideration to conservation of the environment and biodiversity.

Connectors, which are our main products, help to save energy because their detachability enhances the users' productivity and facilitates transportation of their products. They are used in environmentally friendly products, such as electric vehicles and LED lights. Through the utilization of our connectors, we will contribute to the realization of a low-carbon society, preservation of the environment, and conservation of biodiversity.

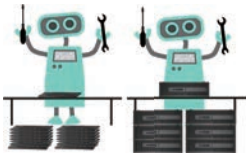
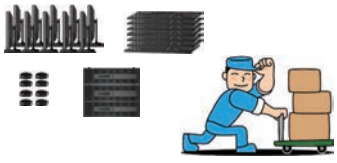
Recognizing that in an endeavor to preserve the environment it is important to adopt environmental management that both is effective and conforms to the relevant environmental management system standards. Hirose Electric and its group companies are committed to conforming to the international standard ISO 14001 and are implementing the following environmental protection activities.

1. We will ensure that we understand the conditions surrounding our company, the needs of our stakeholders, and the impact of our activities and products on the environment. Based on these findings, we will identify what we must do to protect the environment, ensure that we meet our conformance obligations, and determine the risks and opportunities associated with undertaking such activities. We will promote environmental protection and prevention of pollution by planning and implementing our activities accordingly.
2. We will comply with environment-related laws, regulations, ordinances, and external requirements that we subscribe to.
3. We will promote the following activities as priorities in our business activities:
   ・Design, production, and marketing of products those are environmentally friendly
   ・Promotion of energy conservation through effective utilization of resources, streamlining of operations and reduction of waste
   ・Promotion of reduction of industrial waste such as metal chips and waste plastic, and promotion of recycling and reuse through segregation.
4. We will provide in-company training on preservation of the environment and conservation of biodiversity, and raise the awareness of, support, and ask for cooperation from our business partners and clients.
5. We will continuously improve our environment management system in order to enhance the results that our environmental preservation activities will deliver.

Contributions of connectors to environmental protection

Detachability of connectors

Connectors, which are the major product of the Hirose Electric Group, have the following functions. Thanks to these, connectors not only provide convenience to our customers and users but also help to save energy and resources and reduce waste, thereby contributing to the realization of a low-carbon society.

Function	Current status	If connectors did not exist…	Impact on the environment
Maintain ability	・It is possible to replace only the faulty parts. 	・It would be necessary to replace the entire unit rather than only the faulty parts. 	・Increase in waste ・Uneconomical replacement of the entire unit
Expandability	・Devices can be added if and when necessary. 	・All potentially needed devices should be installed at the outset. ・Since functions that may later be found to be necessary cannot be added, the entire unit would have to be replaced.	・Increase in power consumption ・Increase in resources used ・Uneconomical installation of unnecessary devices ・Increase in waste ・Uneconomical replacement of the entire unit
Productivity	・Difference devices can be produced in parallel. 	・Since devices cannot be produced separately, production would be inefficient. 	・Drop in production efficiency ・Increase in power consumption
Transport ability	・Parts of a large product can be transported separately. 	・Since a product cannot be disassembled into separate parts, transportation would be inefficient. 	・Increase in use of transportation energy ・Increase in storage space

Application fields of connectors

Connectors are also used in environmentally friendly products such as the following.

○ Hybrid cars and electric vehicles (contribution to reduction in exhaust gas and prevention of global warming)
○ Mobile phones, smartphones, videoconferencing systems (contributing to the realization of a low-carbon society by reducing the need to travel)
○ Products for vehicles and industrial equipment (contribution to resource saving by extending product lifetime)
○ Products with high environmental performance, such as LEDs (contribution to energy saving)

Environmental Management

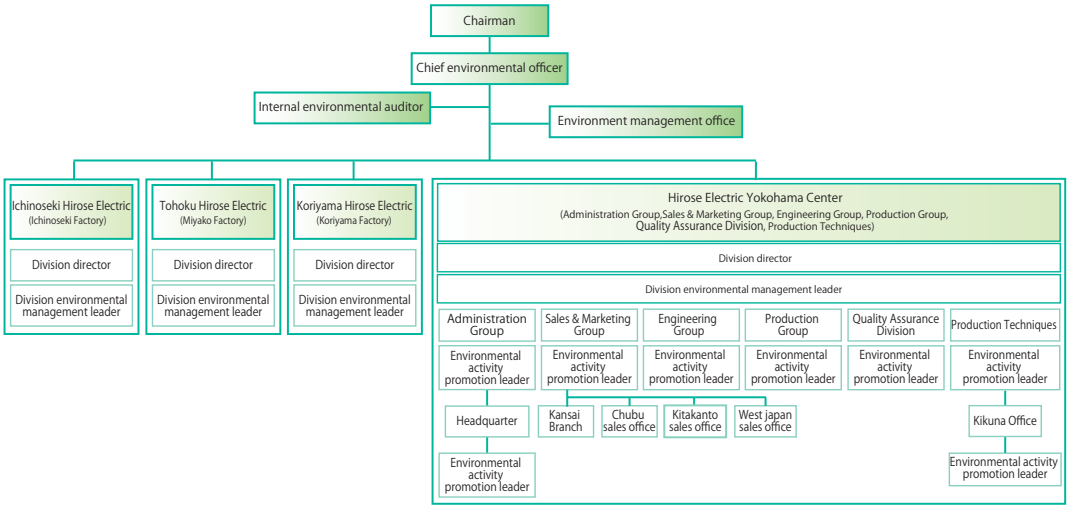
Environmental Management Structure

The Hirose Electric Group organized an environmental management committee, headed by the President and Representative Director of Hirose Electric, and built an environmental management system (EMS). The system spans four organizations: the groups within the Head Office of Hirose Electric and the three domestic factories: Ichinoseki Hirose Electric, Tohoku Hirose Electric, and Koriyama Hirose Electric.

In accordance with the Hirose Electric Group's overall targets, which conform to our environmental policy, individual factories, divisions, and departments set their own objectives and engage in their own environmental management activities. Each month, individual factories and divisions measure progress toward the achievement of their objectives, and share this information with other organizations. This information is reported to management each quarter, and individual organizations receive instructions from management on how to make improvements where this is deemed to be necessary.

The environmental management committee, which consists of management and division directors, is convened monthly to share information and perform a management review.

<Environmental management system organization>



ISO14001 Certifications

Ichinoseki Hirose Electric acquired ISO14001 certification in 1999. The certification was extended to cover Koriyama Hirose Electric and Tohoku Hirose Electric in 2000. In 2002, the Hirose Electric Group, including the three domestic factories, acquired an integrated certification. This demonstrates our commitment to environmental protection.We completed migration to the revised standard (ISO14001:2015).

All of our overseas factories have acquired ISO14001 certification.







1999	Ichinoseki Hirose Electric Co., Ltd.
2000	Koriyama Hirose Electric Co., Ltd. Tohoku Hirose Electric Co., Ltd.
2002	The certification was extended to cover Hirose Electric Co., Ltd. (including the domestic three factories), and it was converted to an integrated certification.
2004	Hirose Electric Malaysia P.T. Hirose Electric Indonesia Hirose Electric (Dongguan, China)
2008	HIROSE KOREA Co., Ltd.
2009	Hirose Electric (Suzhou, China)

SDGs Related to Environmental Protection Activities

The Hirose Electric Group will contribute to achieving the "Sustainable Development Goals (SDGs)" adopted by the UN, through business and environmental activities. The table below shows the relationship between the key environmental management activities of the Hirose Electric Group and the SDGs. Focusing on the SDGs, we will promote our environmental activities.

		Environmental management activities											
		Promotion of an environmental management system	Compliance with environmental laws and regulations	Sale of environmentally friendly products	Energy-saving activities	Greenhouse gas reduction activities	Water usage reduction activities	Paper usage reduction activities	Waste management and recycling activities	Reducing the load on the environment through green ICT	Preservation of biodiversity	Renewable energy (Solar power generation)	Publicity using Sustainability Reports
	The food and agriculture sector offers key solutions for development, and is central for hunger and poverty eradication.	○	○	○	○	○	○	○	○	○	○		
	Clean, accessible water for all is an essential part of the world we want to live in.	○	○	○			○	○	○		○		
	Energy is central to nearly every major challenge and opportunity.	○										○	
	Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs.	○		○						○			
	Investments in infrastructure are crucial to achieving sustainable development.	○		○	○	○				○		○	
	There needs to be a future in which cities provide opportunities for all, with access to basic services, energy, housing, transportation and more.	○	○	○	○	○			○	○	○	○	
	Responsible Production and Consumption	○	○	○					○				○
	Climate change is a global challenge that affects everyone, everywhere.	○	○			○							
	Careful management of this essential global resource is a key feature of a sustainable future.	○	○	○	○	○							
	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss	○			○	○		○	○	○	○		

Compliance with Laws and Regulations

The Hirose Electric Group is ensuring compliance with the relevant laws and regulations through the following activities. We have created lists of all the environment-related laws, regulations and rules that apply to Hirose Electric and individual factories. We have also created lists (database) of documents that must be submitted to the relevant government offices to prevent any omissions when we submit such documents.

We periodically ascertain compliance with the relevant laws and regulations based on the assessment standards we are legally required to comply with, and also check compliance with any agreements we have concluded with municipalities.

In addition to the above, we are reinforcing our supervision through a monthly environmental patrol at each factory. The patrol team checks whether our daily activities comply with the relevant laws and regulations.

As a result, no significant violation of the relevant environmental laws and regulations was found during fiscal year 2018, as had been the case in previous years.



List of environmental laws and regulations, and lists of documents to be submitted (Database)

In addition, we have requested our suppliers to build environmental management systems and comply with relevant laws and regulations, and we have checked the progress they have made in the creation of these systems. Furthermore, we have visited their sites to verify legal compliance.

VOICE

Compliance with Laws and Regulations

At Koriyama Factory, EMS committee members patrol the inside of the factory regularly on a monthly basis to check if the factory satisfies the laws, regulations and company rules that it must comply with, and reports the result to the factory manager at the EMS committee meetings.

An improvement request is sent to the managing department if irregularities found during a patrol, and the next patrol checks if the improvement has been made.

In fiscal year 2018, 6 irregularities were found during 12 patrols, and all were resolved.

As an example of an irregularity, it was found that waste was not being separated correctly at the waste storage location, so the notices were improved, and an EMS committee member provided an explanation to all employees. As a result, the employees understood the types of waste and the waste disposal rules, the number of issues was reduced, and the recycling of resources came to be done correctly.

We will continue to conduct patrols to ensure reliable compliance with the laws, regulations and company rules.



Yukihiro Takahashi
AMC Quality Control Section
Koriyama Hirose Electric



Environmental patrol

Environmental Audit

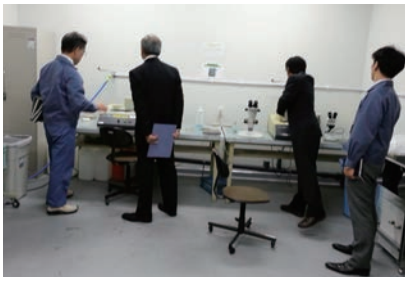
The Hirose Electric Group carries out an internal environmental audit to make sure that its environmental management system is working effectively and being properly maintained in accordance with ISO14001.In fiscal year 2018, the audit was conducted from August 1 to September 7.

This internal audit identified four problems but none of these were major such as significant deviations from the plan or problems affecting the entire system. All the identified problems have since been rectified.

To maintain and renew ISO14001 certification, we undergo periodic external reviews. In fiscal year 2018, the periodic audits were conducted from December 4 through 7. The reviewers confirmed that our environmental management system is being properly maintained.



Internal audit



External audit

Environmental Education

The Hirose Electric Group provides environmental education for all staff so that every employee understands the importance of environmental protection activities, and has a clear understanding of his or her responsibilities when engaging in these activities. Also, necessary competence at each base of operations is decided, and training is planned and carried out to acquire those capacities.

In addition, we provide specialized education for those personnel who are involved in any work that could potentially cause an emergency or a significant environmental impact. Moreover, we raise awareness among employees of the importance of biodiversity by providing e-learning on the subject and exchanging information about biodiversity.



Education for designers



Training on gas cylinder installation



Education at a factory

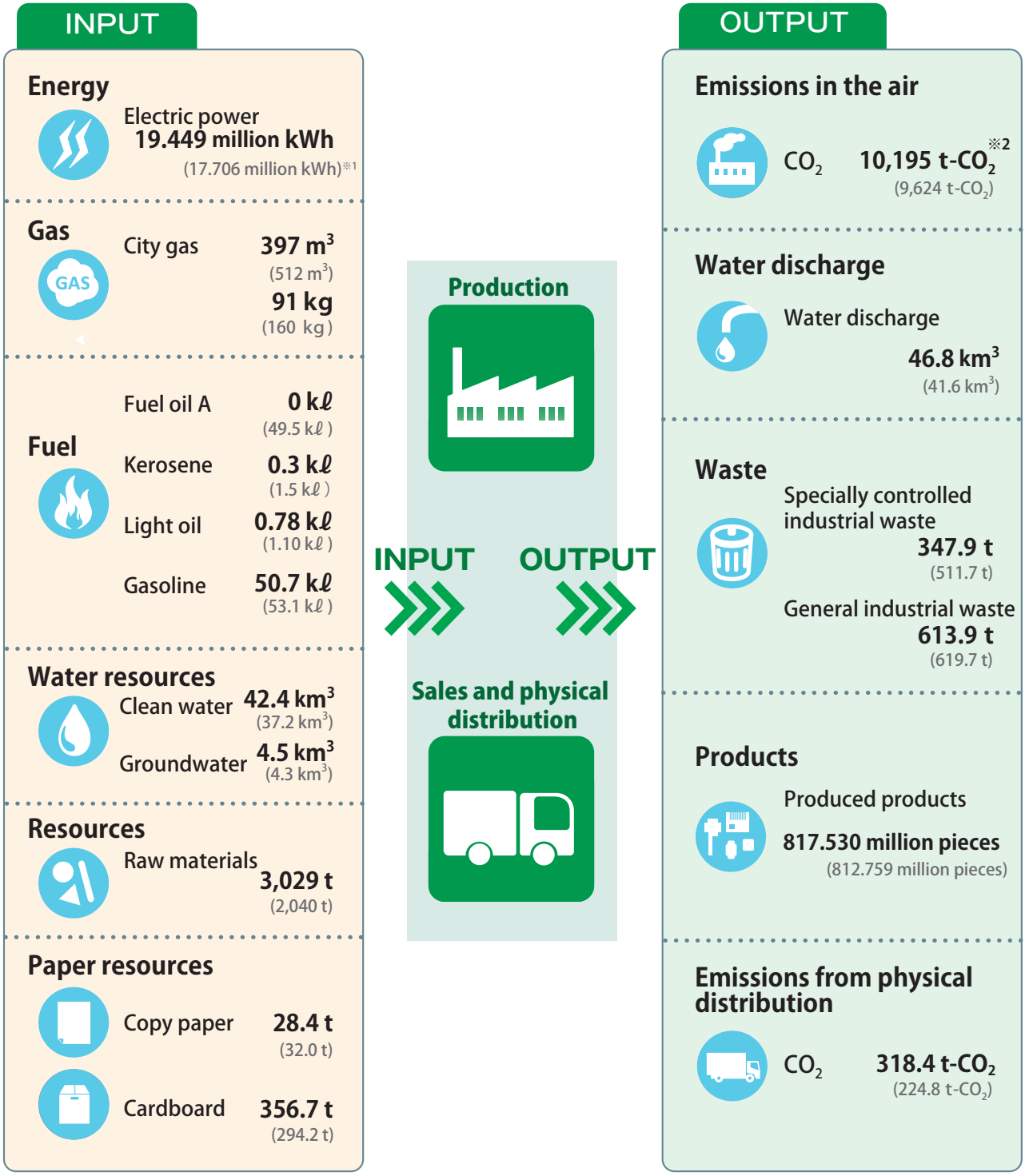


E-learning about biodiversity

Environmental Impacts due to Business Activities

We are making sure that our business activities are eco-friendly by ascertaining what impacts these activities have on the environment.

Activities with the potential to cause environmental impacts during fiscal year 2018 are listed below.



＊1 ( ) shows data for fiscal year 2017.

＊2 The real CO_2 emission factors of individual power companies were used in the calculation.

Environmental Objectives and Level of Achievement

The Hirose Electric Group undertakes environmental protection activities by setting annual environmental objectives.

The overall objectives of the Hirose Electric Group are to contribute to realization of a low-carbon society, environmental protection and biodiversity conservation through sales of connectors, to reduce waste, and to operate efficiently. Based on these objectives, individual factories and divisions have set specific activity objectives and are working to reduce the environmental impacts of their operations. The group is reducing its usage of resources and generation of industrial waste through adoption of a long-term target of "reducing our usage of various items per unit of sales by 1% on average for each year up to 2020." The objectives, targets and the level of achievement for fiscal year 2018 are shown below.

We will continue to protect the environment as we strive to achieve the targets we set.

Hirose group's objectives	Targets for fiscal year 2018	Achievement in fiscal year 2018	Evaluation*3
Contribute to realization of a low-carbon society, environmental protection, and conservation of biodiversity through sales of connectors	Complete the planned activities for strengthening control over the use of prohibited materials	100%	○
	Check 97% of our business partners to find out if their green procurement guidelines are being kept up-to-date	100%	○
	Revise RoHS (banning of phthalate-containing products) and achieve a progress rate of 80% of the plan.	90%	○
	Reduce spoilage cost	Cleared the a chievement standard	○
	Reduce inventory waste of individual items and products	Cleared the a chievement standard	○
Reduce waste and operate efficiently	Reduce energy usage by 4.90% from fiscal year 2012 (annual average 1.0%)	Reduced by 10.8%*2	×*4
	Reduce CO_2 emissions*1 by 4.90% from fiscal year 2012 (annual average 1.0%)	Increased by 8.1%*2	×*5
	Reduce water usage by 4.90% from fiscal year 2012 (annual average 1.0%)	Reduced by 34.4%*2	○
	Reduce the amount of specially controlled industrial waste by 4.90% from fiscal year 2012 (annual average 1.0%)	Reduced by 17.8%*2	○
	Reduce the amount of general industrial waste by 4.90% from fiscal year 2012 (annual average 1.0%)	Reduced by 31.3%*2	○
	Reduce paper usage by 4.90% from fiscal year 2012 (annual average 1.0%)	Reduced by 33.1%*2	○
	Implement an environment patrol	Completed as planned	○
	Improve the mold certification pass rate	Completed as planned	○
	Collect in forms portal site	Made progress as planned	○
	Streamline distribution routes	Cleared the achievement standard	○

＊1 The real CO_2 emission factors of individual power companies were used in the calculation.

＊2 This percentage is calculated in reference to the target amount of usage per unit of sales.

＊3 The achievement is evaluated using a three-grade scale (○ : targets achieved; △ : relevant activities in progress; and × : targets not yet achieved).

＊4 Due to an expansion of facilities, energy usage has been reduced in respect to the benchmark year, however, the reduction target was not met.

＊5 Although we achieved the target for reduction of energy usage, we failed to reduce CO_2 emissions due to a rise of approximately 30% in the electric power-to-CO_2 emissions conversion coefficient.

Activities to Reduce Environmental Impacts

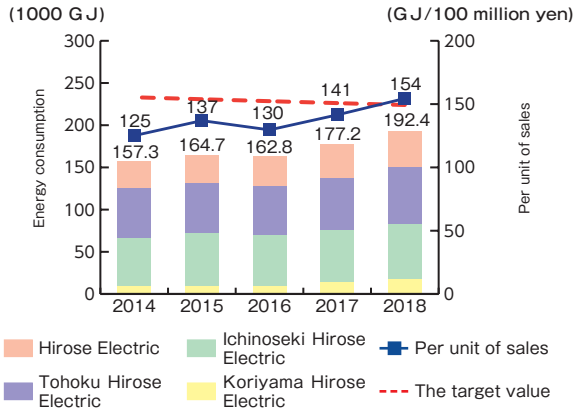
Reduction of Energy Consumption

[Long-term target] Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

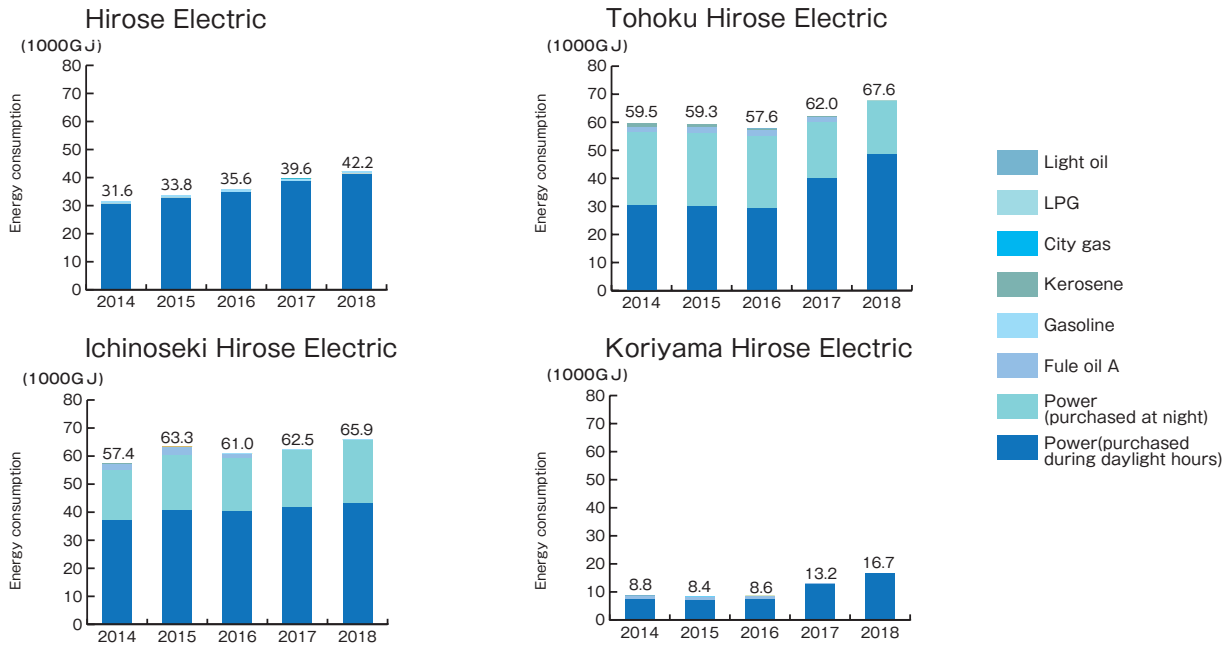
Based on the Hirose Electric Group's long-term vision*1 of reducing energy consumption by 7.73% or more by the end of fiscal year 2020 compared to the reference fiscal year 2012, we are doing business with a target of reducing energy consumption by 1% annually, on average. We have put up posters in offices and factories to encourage everyday activities for energy saving, such as turning lights off during lunchtime recess, refraining from using elevators for going up or down two floors, and reducing power consumption in rest rooms.

Tohoku Hirose Electric and Ichinoseki Hirose Electric have been designated as "specified business operators" as defined by the Act on the Rational Use of Energy. It is saving energy in accordance with its medium-and-long term plan. Solar power generation facilities were installed at Tohoku Hirose Electric in 2017, and at Ichinoseki Hirose Electric in 2018. In addition, the lighting at the factories was changed to LED lights, and the boilers were replaced with air conditioners, so Heavy Oil A was no longer used. Energy consumption per unit of sales in fiscal year 2018 was reduced by 2.6%, compared to the target of 5.85%, so the addition of facilities in the past several years has had an impact, with the target not being met.

Energy consumption



*1 Our targets are inconformity with the JEITA(Japan Electronics and Information Technology Industries Association) targets.





Solar power generating station (roof top)(Tohoku Hirose Electric)



Heavy oil underground tank backfilling(Koriyama Hirose Electric)



Outdoor disposal facility at the Test Center(Ichinoseki Hirose Electric)

Reduction of Greenhouse Gas Emissions

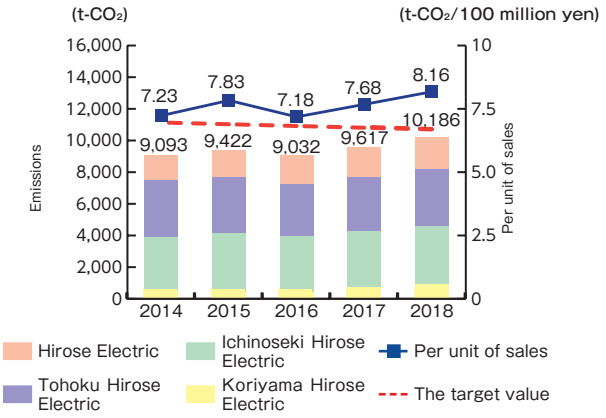
【Long-term target】Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

Most greenhouse gas emissions from the Hirose Electric Group arise out of our use of electric power, fuel oil A and gasoline. Most are indirect CO_2 emissions produced through electricity generation using fossil fuels.

Japanese power companies were forced to cease operation of their nuclear power stations. As a result, their use of thermal power stations increased, thereby raising the CO_2 emissions factor *1 approximately 30% compared to the reference year 2012. Consequently, our emissions of CO_2 increased by 15.1%, meaning that the target for fiscal year 2018 of a 5.85% reduction was not met.The Hirose Electric Group also controls energy consumption and CO_2 emissions at its overseas sites and its partner companies, both within Japan and overseas.

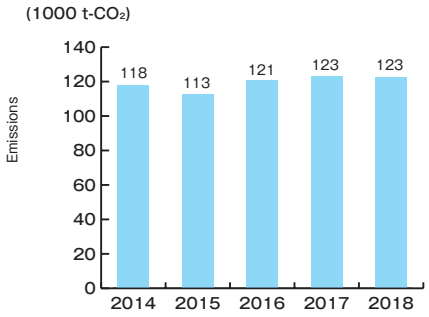
Given increases in overseas production, particularly in Asia, CO_2 emissions at overseas sites have been increasing since 2013. We will strengthen the organizational structure for management of CO_2 emissions and press ahead with reduction of environmental impacts.

CO_2 emissions

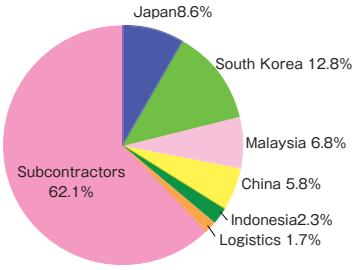


*1 We used the real CO_2 emission factors provided by individual electric power companies for CO_2 emissions in Japan and the factors given in the Greenhouse Gas (GHG) Protocol for CO_2 emissions overseas.

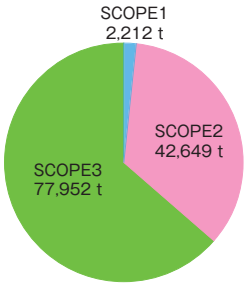
CO_2 emissions (includes overseas sites, subcontractors at home and overseas, logistics) *2



Percentage of CO_2 emissions in fiscal year 2018



CO_2 emissions by the entire supply chain (fiscal year 2018)



*2 We have calculated the overall amount by sampling primary subcontractors's CO_2 emissions caused by our purchase taking into account the yearly coverage rate (52% - 85%).
The scope of CO_2 emissions in logistics : our domestic dedicated truck, export flight, import flight.

SCOPE 1: CO_2 emissions by the Hirose Electric Group
SCOPE 2: CO_2 emissions by power companies used by the Hirose Electric Group
SCOPE 3: CO_2 emissions by others (logistics,subcontractors, and power companies used by subcontractors, etc.)

Reduction of Greenhouse Gas Emissions from Transportation

To reduce greenhouse gas emissions from transportation, the Hirose Electric Group are taking the following measures:

- ○ Use returnable trays for packaging when shipping products
- ○ Locally procure trays that are used in overseas factories.
- ○ Select efficient distribution routes.
- ○ Change shuttle trucks between Hirose factories from 2-ton trucks to lightweight trucks.
- ○ Replace conventional cars used in factories with hybrid cars.



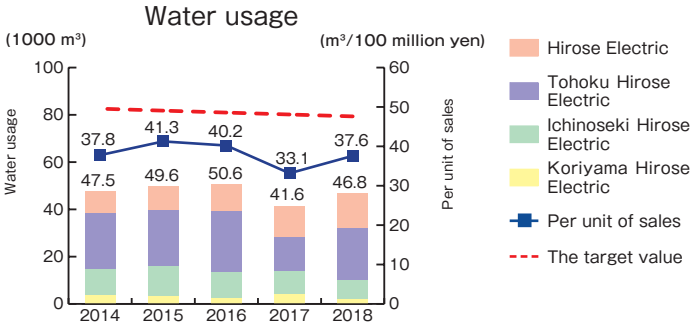
Hybrid cars

Reduction of Water Usage

【Long-term target】Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

The Hirose Electric Group is striving to reduce domestic use of water. Ichinoseki Hirose Electric works to reduce the amount of water used in production; for example, by recycling some of the water used in the plating process.

Water usage for fiscal year 2018 reduced by 25.7% compared to the target of 5.85%.





Ichinoseki Hirose Electric
Plating plant

VOICE



Takahiro Hachiya
Plating Section
Ichinoseki Hirose Electric

Reduction of water usage in the plating process

Ichinoseki Factory has a plating line. In the plating line, there is a water-washing process where the chemicals in each process are flushed. A lot of water is used in the process. From the past, we have adopted a multi-stage batch system, and compared to the system that constantly performs water flushing, we have been able to reduce water usage by 1/20.

Furthermore, since fiscal year 2018, we have succeeded in reducing water usage by 10 m^3/month by managing flush water according to the production line and operating conditions.

We will continue to work on production with consciousness of water resources.

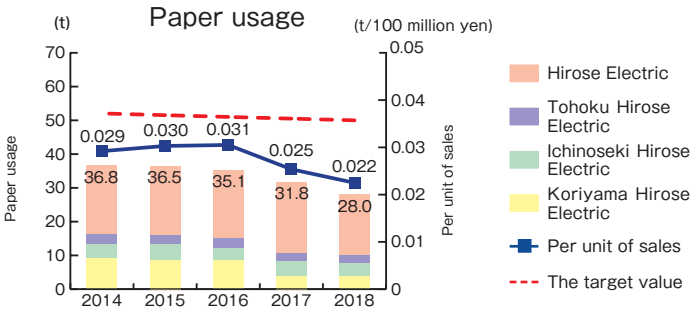
Reduction of Paper Usage

【Long-term target】Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

As part of its commitment to saving resources, the Hirose Electric Group is working to reduce paper usage.

We are reducing paper use by printing on both sides of sheets, condensing two or more pages into a single page, printing on the back of previously used paper, using electronic documents, reducing paper document distribution in meetings by bringing laptop PCs or using projectors, and substituting electronic files for internally circulated paper documents. We also preferentially purchase paper that has an environmental label.

As a result, paper usage for fiscal year 2018 reduced by 40.7% compared to the target of 5.85%





Reduction of distributed paper documents by using a projector

Reduction of Waste and Recycling

【Long-term target】Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

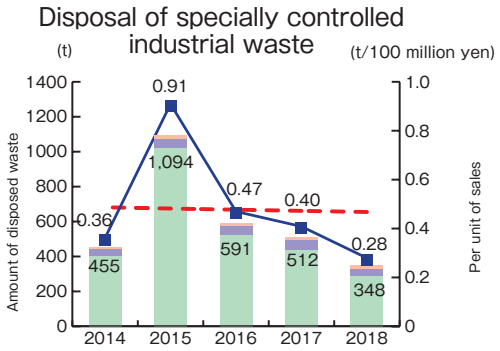
The Hirose Electric Group is handling waste produced from its business operations responsibly. Industrial waste is classified into specially controlled industrial waste and general industrial waste. We manage each of these waste types separately.

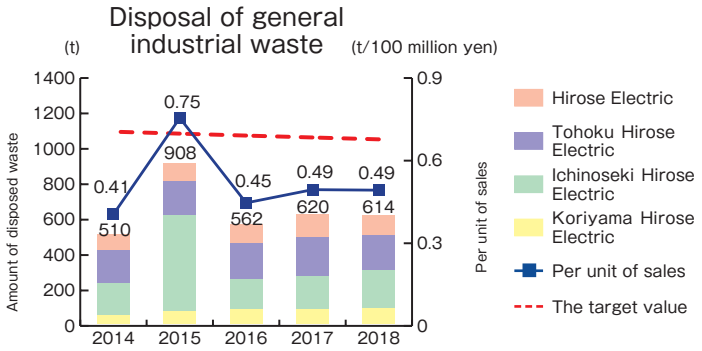
Specially controlled industrial waste is stored and processed at specified storage facilities under strict conditions.

We are making sure that general industrial waste is carefully separated into the proper categories by putting up signs that explain how to separate waste into plastic, metal, paper, etc. Furthermore, to generate revenue from waste, we are extracting parts of waste materials for sale as valuable substances or recyclable products.

Ichinoseki Hirose Electric has endeavored to reduce waste disposal by neutralizing acid and alkaline wastes. However, the levels of these wastes have increased significantly as a result of the temporary breakdown of the neutralization facilities in fiscal year 2015. Later, operation of the neutralization facilities was resumed, and emissions were normalized.

All told, the volume of specially controlled industrial waste reduced by 43.8% and that of general industrial waste reduced by 31.5%, compared to the target of 5.85%.







Collection of scrap metal

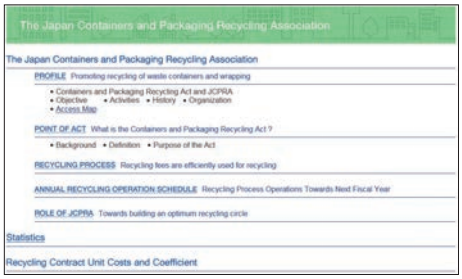


Checking on sorting for recycling

Activities for recycling sold products

Since connectors, which are our main products, are built into our customers' products, it is difficult for us to recover them.

Our business includes sales of healthcare devices to consumers. We are outsourcing recovery of packaging materials for these products to the Japan Containers and Packaging Recycling Association.



Website of the Japan Containers and Packaging Recycling Association

Reduction of Environmental Impacts through Green ICT

Introduction of “System Q&A Chatbot” that uses AI technology

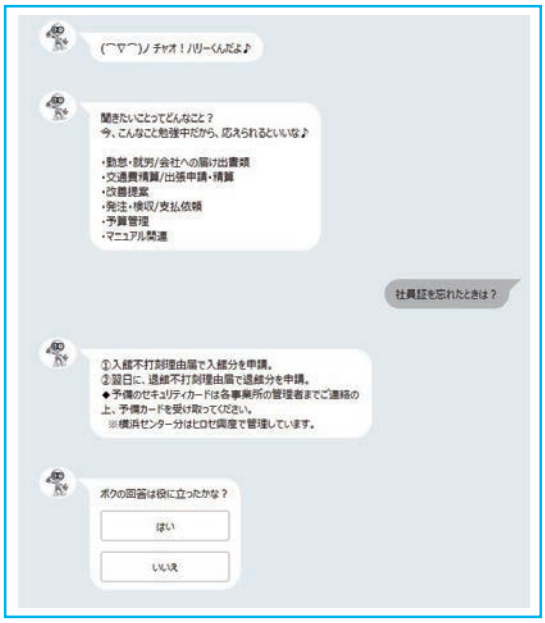
For the purpose of reducing the number of man-hours corresponding to inquiries, the Hirose Electric Group introduced a Q&A Chatbot on how to use the system.

At present, computerization is progressing in management of worker time sheets and various applications, but in applications that are implemented for the first time or for applications that are not performed frequently, application methods are forgotten. Therefore, inquiries have been made to colleagues or to the IT staff.

By responding to such inquiries with a Chatbot, questions can be asked freely at any time. Thus, increase in work efficiency and a reduction of power consumption can be expected.

In the future, we plan to further improve efficiency not only in System Q&A, but also by expanding horizontally into the knowledge of each department.of paper per year.

In fiscal year 2018, the coverage range will be expanded thus, we will strive to further reduce our environmental impacts.

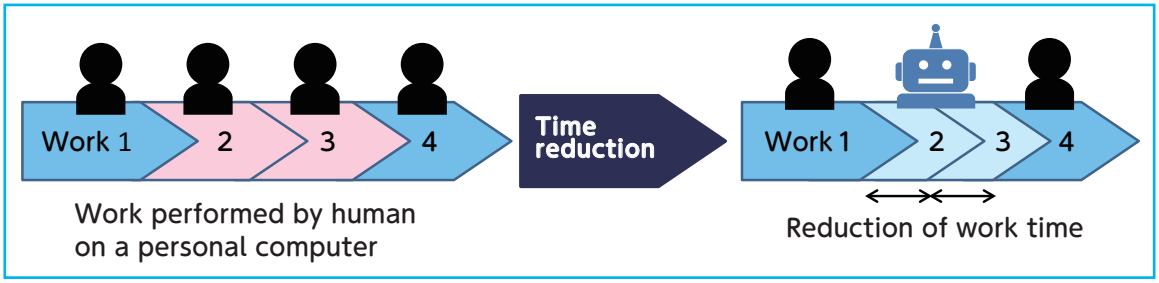


Chatbot response example image

Improvement of work efficiency using RPA

Since fiscal year 2018, the Hirose Electric Group has been making efforts to improve operational efficiency by automation of operations using Robotic Process Automation (RPA). RPA is technology that automates work by having a software robot learn the work procedures performed by human on a personal computer. By having a software robot work, operational work times may be reduced a great deal. Moreover, it also improves work quality and prevents human error. In fiscal year 2018, six operations were automated with RPA. As a result, work hours in each business area can be reduced by 50 to 90%, and the effect of reduction is expected to be 324 hours annually.

In fiscal year 2019, we will expand the scope of business of automation to further improve operational efficiency.



Example image of operational efficiency using RPA

Reduction of Environmental Impacts on Living Environment

The Hirose Electric Group is making sure that their operations comply with the relevant laws and regulations of the national and regional governments with regard to prevention of ozone layer damage, inappropriate processing of waste, water contamination, noise and vibration.

For air conditioners, freezers, refrigerators and other equipment that use chlorofluorocarbons installed at each office, to comply with the Act on Rational Use and Proper Management of Fluorocarbons, we conduct simple inspections, periodic inspections, and chlorofluorocarbon leakage management. In accordance with the laws and regulations including waste management according to the Waste Management and Public Cleansing Act, we regularly conduct inspection and measurement to prevent pollution and contamination in the atmosphere, water quality, noise and vibration.

Preparedness for Emergencies

The Hirose Electric Group has compiled response manuals for a wide range of possible emergencies that could potentially have impacts on the environment. We conduct regular drills to confirm that the manuals are effective and to raise the awareness of those concerned.

We also carry out regular fire drills to maintain workplace safety. So far, there have been no emergencies or accidents. We are determined to prevent and expend all possible means to make this happen.

● Examples of emergencies ●

- ○ gas leakage
- ○ gas leakage due to defective ventilation
- ○ broken plating machine
- ○ leakage from a container used to store plating materials
- ○ lead contamination in discharged water
- ○ theft of toxic materials
- ○ broken vessel containing discharged plating solution



Training at the time of the poisonous gases outbreak from the plating plant





Training to close the floodgates assuming the flooding of a neighboring river



Fire drills

Biodiversity Conservation

The Hirose Electric Group is conserving biodiversity by developing, producing and selling environmentally friendly products.

One of the measures we take to raise biodiversity consciousness among all Hirose Electric Group personnel is to provide them with e-learning opportunities on the subject. We then ask them to make a pledge regarding, and to implement, specific actions that they will take in everyday situations to come into contact with biodiversity, help conserve biodiversity, and communicate the message of biodiversity. Each person makes this pledge, which we call "My Action Pledge," every year, and self-assesses the results of his/her pledge for the previous year, makes a fresh pledge, and implements it.

In addition, in club activities for employees to become better acquainted, there is a club that offers opportunities to "feel" and "communicate" through biodiversity activities, and it has helped raise awareness and dissemination of biodiversity.

Biodiversity-related postings by employees

Transparent water channel and fish (Shirakawa-go)



I was impressed with clearness of water going through roadside channels.

Biotope





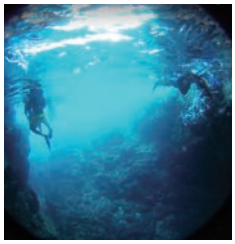


We found a "Biotope" near the company. We found this signboard under the cherry tree!!

Coral reef and tropical fish (Cape Maeda, Okinawa)

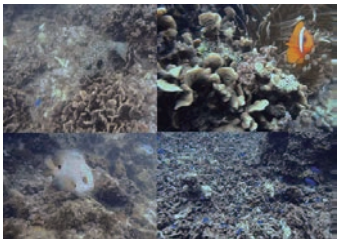






We went to Cape Maeda, which is a famous diving and snorkeling spot located around the middle of Naha City and the Churaumi Aquarium in Okinawa Prefecture. The coral reef was beautiful enough to be compared to a remote island and the coral was vibrant. There were many colorful tropical fish swimming, protected by the coral. Why is the coral reef so beautiful? I think it is because the coral reef is protected by the Blue Cave and the instructors of the tours.

Convention to conserve the ocean (Miyako Island)

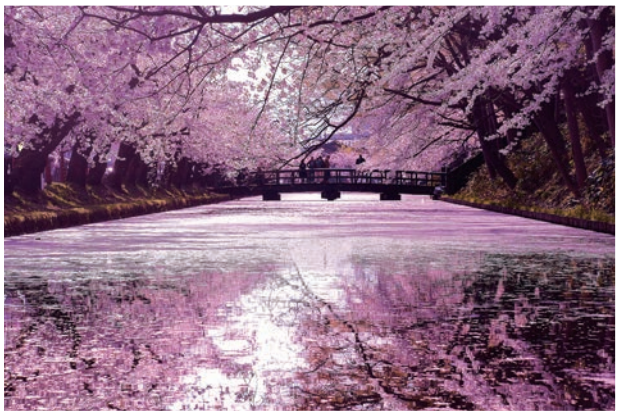


I participated in the convention for people keeping the ocean conserved. I made frantic efforts not to damage coral when taking pictures.

Raising awareness of biodiversity — Club activities —

The Photography Club carries out activities to enhance biodiversity by taking pictures of beautiful nature scenes as well as aspects of living things. The Scuba Diving Club offers an opportunity to think about biodiversity through experiencing the beautiful ecosystem of the sea.

Photography Club









Scuba Diving Club

■ May Ishigaki Island/Taketomi Island, Okinawa ■













Aug. Tokashiki, Okinbawa



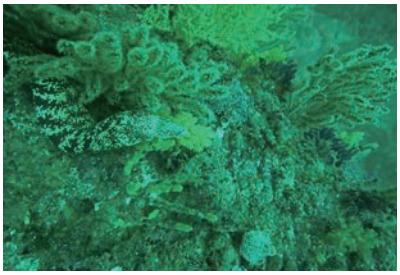





Sep. Atami

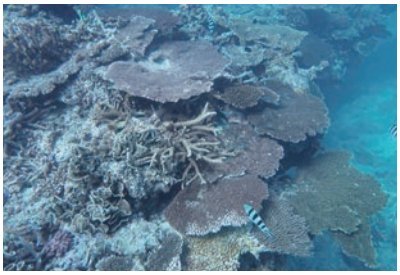




Nov. Chibishi, Okinawa








Communication

Social Action Programs

Cleanup Activities in Local Communities

Since their establishment, Tohoku Hirose Electric and Ichinoseki Hirose Electric have been cleaning up their respective neighborhoods on a regular basis, and will continue to do so. By doing so, they are contributing to the local communities.





Picking up litter around the company (Tohoku Hirose Electric)



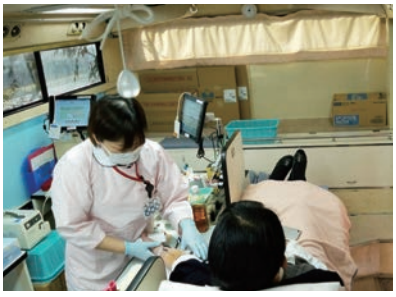
Picking up litter around the company
(Ichinoseki Hirose Electric)



Picking up litter around the company
(Koriyama Hirose Electric)

Blood Donation (Made at Each Business Site)

All the business sites of the Hirose Electric Group annually participate in a blood donation drive organized by the Japan Red Cross Society.

Participation in a blood donation drive (Yokohama Center)

The "Silver Medal for Merit" awarded by the Japanese Red Cross Society

On October 4, 2017, our blood donation activities over the years have won admiration, and the Japanese Red Cross Society awarded us with the "Silver Medal for Merit".

We will make positive approaches in blood donation activities as a social contribution activity from now on.



Communication with Stakeholders

Hirose Technology Exhibitions

Every three years, the Hirose Electric Group holds a technology exhibition. In 2016, Hirose Technology Exhibition CONNEXTION 2016 was held in Tokyo and Osaka. The exhibition in 2016 presented the entire range of new products and technologies that have been designed to meet the needs of the future, including prototypes. The products and technologies were arranged by purpose and application field. Large numbers of visitors congregated around the exhibits, including visitors from overseas.






Scene of the Hirose Technology Exhibition

Communication with Suppliers

The Hirose Electric Group holds a regular TOP training workshop (workshop on quality) and a meeting to exchange New Year's greetings with its suppliers in order to forge a closer partnership.

In addition, with a view to incentivizing suppliers to implement environmentally friendly practices, we make a list that ranks suppliers based on a range of evidence submitted by the suppliers themselves, and make the list public.

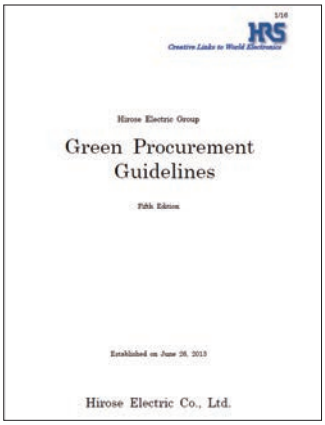





Meeting to exchange New Year's greetings

Formulation of Green Procurement Guidelines

As part of its activities to preserve the environment and protect biodiversity, the Hirose Electric Group has formulated the Hirose Electric Group Green Procurement Guidelines in order to preferentially procure parts and materials that have a low impact on the environment, taking the lifecycle of each product into consideration. The guidelines apply to components that make up products, materials used during the manufacturing process, and the packaging materials used in the shipping of products. They also apply to the machinery and tools used at manufacturing sites. We are making concerted efforts to implement green procurement. We have distributed the guidelines to our suppliers and asked them to establish their own environmental management systems, reinforce quality control of chemicals contained in products, and submit information about such chemicals.


Hirose Electric Group

Green Procurement Guidelines

Fifth Edition

Hirose Electric Co., Ltd.

Complaints on Environment from the Neighborhood and/or Stakeholders

Nothing in particular.

Activities at Group Sites to Reduce Environmental Impacts

Activities of Domestic Factories to Reduce Environmental Impacts

Koriyama Hirose Electric (Koriyama Factory)

Address: 87-3, Ogawara, Koriyama, Fukushima, 963-8828, Japan
Business: Production of ribbon-cable connectors,
interface connectors,
nylon connectors and connectors for automobiles


Koriyama Hirose Electric


Makoto Sakamaki
AMC Production Section

Koriyama City is a designated core city, and the third largest city in the Tohoku region after Sendai and Iwaki. At the same time, it is located in an area blessed with a rich natural environment such as Lake Inawashiro and Asaka Sosui. In fiscal year 2018 at the Koriyama Factory in Koriyama City, we targeted a reduction in the environmental impacts by working on the following items.

(1) Sorting and collection of metal scraps

Since fiscal year 2012, we have been collecting metal scraps. By sorting and collecting as well as using recyclables through using a classification system for refinement, it has become possible to greatly contribute to the reduction of industrial waste. When it was first implemented, sorting could not be done only by appearance, however, by deciding the sorting method and operation procedure, full-on sorting and collection was established.

(2) From gas powered water heaters to environmentally friendly electric water heaters

Up to now, propane gas has been used to supply hot water to our customers and employees. However, by converting to electric water heaters, the CO_2 generated by combustion is reduced, leading to a reduction in the risk of global warming.

(3) Shifting all wooden pallets to resin pallets

At Koriyama Factory, the pallets for placing and transporting products, used within the factory and with assembly partner companies as well, have all been shifted from wood to resin. Convenient handling and improved strength make the pallet life much longer than wood, and there is no need for deforestation.

In the future, we aim to promote further recycling and reuse activities so that we can achieve environmentally friendly production.

[Koriyama Factory] Introduction of scrap metal collection

The recycling method for metal scrap at Koriyama Factory, which we have been working on since fiscal year 2012, is not limited to collecting scrap simply generated in the process. Setting the scrap that is to be recovered from the monthly production results as a theoretical value, we compare the scrap with the collected results, and check to see if items that should be recycled have not been discarded. These efforts have made it possible to collect items that have previously been discarded. We are also working on operations to collect and sort metal materials and plating materials of every kind and are working on becoming more thorough with recycling.


Metal scrap sorting


Daisuke Asano
Production Engineering Section

Tohoku Hirose Electric (Miyako Factory)

Address: 21-2, 2nd Chiwari, Akamae, Miyako, Iwate, 027-0202,Japan
Business: Production of nylon connectors
(primary processing and assembly),
and development and production of advanced metal molds
and automated machinery


Tohoku Hirose Electric

Miyako Factory is located in Miyako City of Iwate Prefecture in the Sanriku Reconstruction National Park, which is blessed with the mountains, rivers and the sea. It is located in the easternmost region of Honshu, where the sun rises earliest in mainland Japan. Facing the Pacific Ocean, the fishing industry is prosperous. In order to protect this rich natural environment, Miyako Factory is working hard to reduce environmentally hazardous substances.

We view environmental impact-reduction = quality improvement = cost reduction. Defective products are directly linked to waste of energy and resources (people, goods, and money). In addition to daily operations, we are promoting quality improvement through QC circle activities and improvement proposals and promoting effective use of energy and resources, and reduction of waste.

Miyako Factory is also working to improve the availability of automated machines with the aim of improving the productivity of manufacturing facilities. By increasing the number of units produced per unit time, we are contributing to the reduction of energy consumption per unit of sales.


Shinichi Kawamura
Quality Control Section

【Miyako Factory】 Introduction of energy-saving equipment into new building construction

Introduction of energy saving features into the precision metal mold building where construction was begun in July 2017 and completed in May 2018.

1. Energy saving by solar power generation
We installed a 144-panel 40kW photovoltaic power generating system on the roof. The 20kWh storage battery can store a portion of photovoltaic power and nighttime electric power, and it can be used not only for the installed precision metal mold building but also throughout the factory in case of emergencies.

2. Energy saving built in for air conditioning
By using a double layer folded structure in the roof and a high-performance heat insulating material on the walls*, we realized an energy savings of about 49% compared to the conventional air conditioned building. (Construction company simulation)

*Measuring 35mm, there is about a 10 fold improvement in insulation effect compared with the (100mm concrete + 45mm urethane foam) structure.


Yosuke Ohmura
TH Production
Equipment Section

Comparison of thermal insulation effect

	Roof structure	External walls	Annual power consumption (%)
Conventional structure	Single folded plate	Conventional material	100
New building structure	Double folded plate	High performance material	51


Precision metal mold building

Ichinoseki Hirose Electric (Ichinoseki Factory)

Address : 14-36, Todai, Ichinoseki, Iwate, 021-0822, Japan
Business: Production of coaxial connectors, high-frequency/ optical devices, optical connectors, interface connectors, and processed components


Ichinoseki Hirose Electric



Tatsuya Chiba
General Affairs Section

Ichinoseki Factory is located in a beautiful natural area with a view of Mt. Kurikoma, a central symbol of the Kurikoma Quasi-national Park, far to the east, and abuts the Kitagami River. Surrounded by this exceptional natural environment, we take into consideration how our business activities affect the everyday life of those living in the local community.

In fiscal year 2018, Ichinoseki Factory completed the introduction of the following environmentally friendly infrastructure facilities (solar power generation equipment). In fiscal year 2019, it plans to change the lighting to LED lights.

(1) Introduction of environmentally friendly infrastructure facilities

Installation of solar power generation equipment is complete. We expect to reduce annual power consumption by 288,000 kWh (approximately 4.32 million yen) and CO_2 emissions by 156,000 kg-CO_2 reduction.

(2) Promoting LED Lighting

In fiscal year 2019, we will proceed with activities to promote LED lighting. We expect to reduce annual electricity consumption by 245,000 kWh (approximately 3.67 million yen) and CO_2 emissions by 105,000 kg-CO_2 reduction.

We are reducing impacts on the global environment and preserving biodiversity by continuing with the above-mentioned activities and making sure that our business activities do not involve the use of materials that adversely affect the environment.

[Ichinoseki Factory] Introduction of solar power generation equipment

Ichinoseki Factory introduced solar power generation equipment in October 2018 as energy-saving equipment.

The factory site was prepared, and 880 solar panels were installed. The power generation capacity is 200 kW. The electricity generated here is used directly in the factory's manufacturing facilities, test equipment, lighting equipment, etc. to realize energy conservation.

Tatsuya Chiba
General Affairs Section


Solar power generating station

【Inchinoseki Factory】 Selection of energy-efficient facilities for a new test center building

At Ichinoseki Factory, the new testing center building commenced operations in March 2018. The new testing center building has been designed with the following environmental impact reductions. Going forward, we will make effective use of the system to reduce impact on the environment.

- Each test machine is network-connected and visually monitored online.
- We have introduced a system for 24-hour monitoring of ignition information in energization testing, gas leakage information in gas corrosion test equipment, and water leakage information around water piping.
- An electric power monitoring system enables discrete monitoring of power consumption area by area. We will use this system to promote energy conservation.
- Other areas
  - Air conditioner efficiency improvement by reducing the number of windows
  - Power saving by LED lighting
    (Reduction of electric power by 5 kWh per year from the levels of conventional fluorescent lamps)
  - Improvement in air conditioning efficiency and noise reduction through outdoor installation of intake and exhaust vibration equipment
    (Air Conditioning Efficiency : 40% reduction in electricity use;
    Noise Reduction : Up to 20dB reduction)

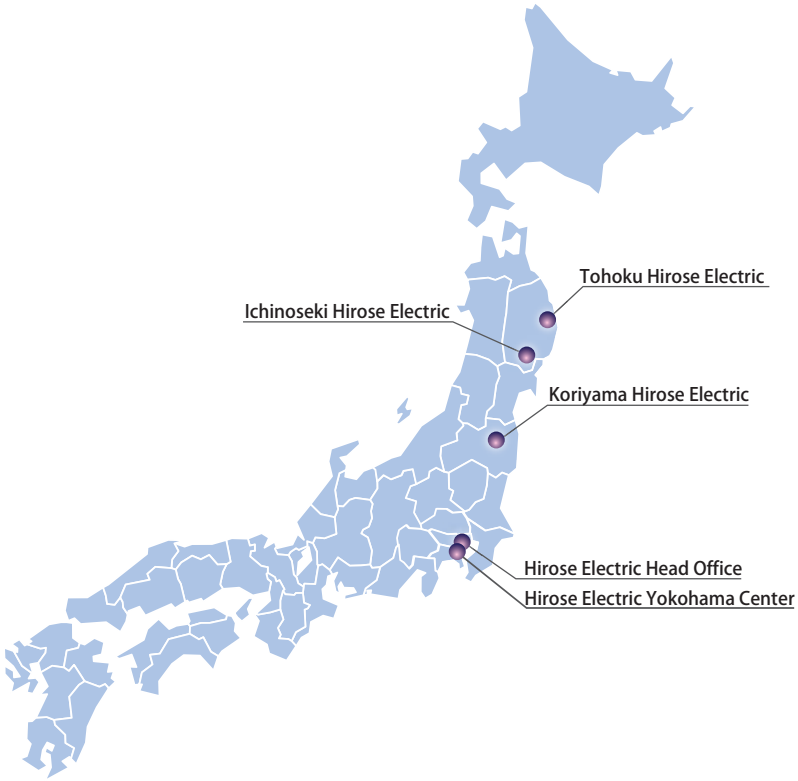


Takuya Kubota
Ichinoseki Test Center



New testing center building

Locations of the head office and factories

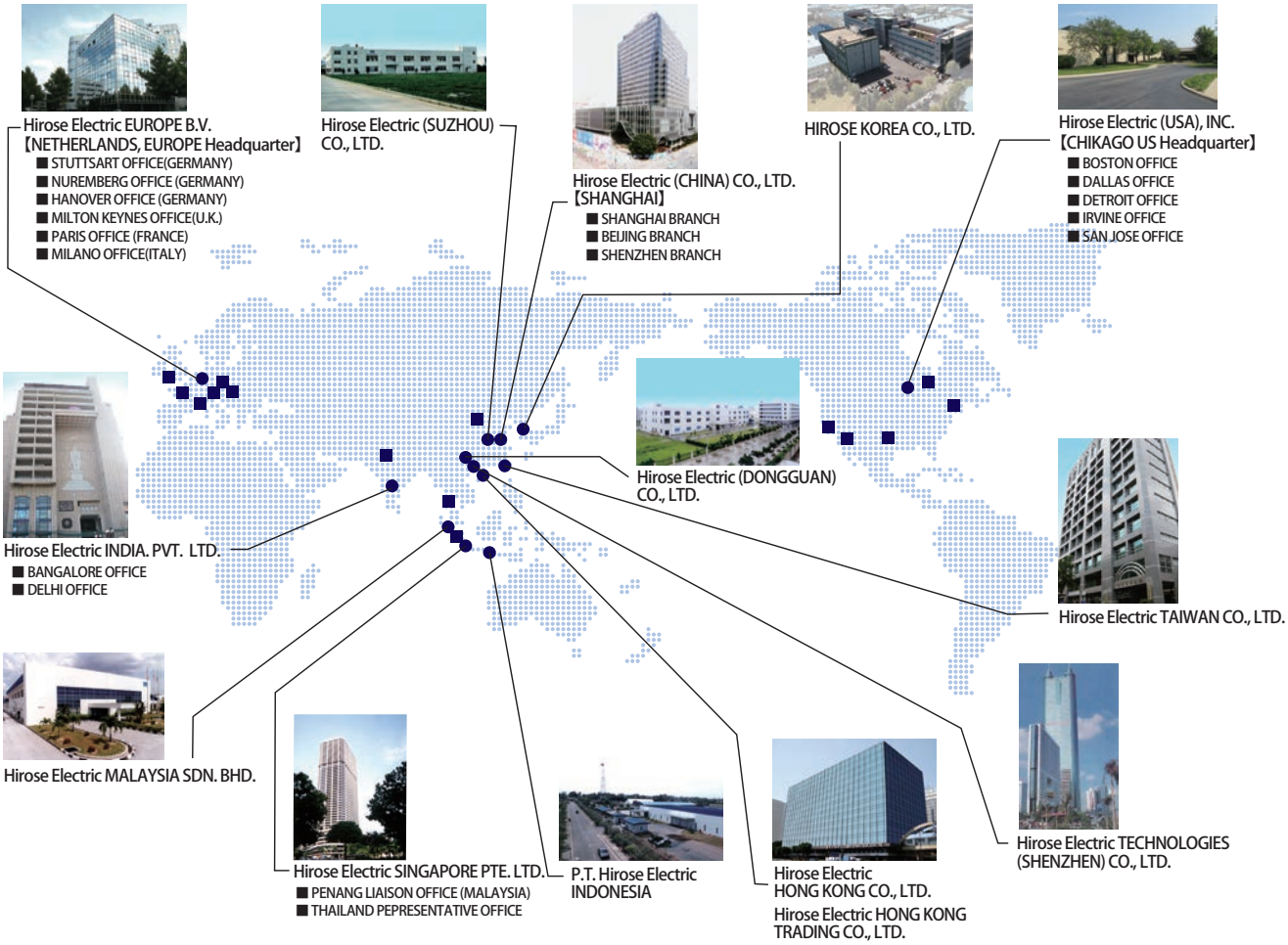


Activities of Overseas Sites to Reduce Environmental Impacts

Since the first signing of an overseas agency agreement in 1967, the Hirose Electric Group has steadily expanded its overseas business operations. In addition to putting in place a sales network that interconnects Japan, Asia, America and Europe, we have established overseas production sites to meet worldwide demand. We intend to press ahead with globalization of our design and development capabilities in order to enhance our international brand and global market share.

As we become more globally oriented and active, we are promoting activities to reduce environmental impacts in ways that are appropriate for individual sites. In particular, the production sites that generate relatively large environmental loads have obtained ISO14001 and ISO9001 certifications and established systems for ensuring ongoing improvement in their endeavors to protect the environment, comply with relevant laws and regulations, and prevent contamination.

We have also established a watertight quality control system with regard to hazardous materials contained in products, as part of our efforts to promote product recycling and green procurement. For example, we have installed X-ray fluorescence spectrometers to implement our slogans of "Do not allow entry of, " "Do not mix" and "Do not produce" hazardous materials in our products.



History of social and environmental activities

History of social and environmental activities

	Activities	Certifications and participation in relevant organizations
1970s	Ceases cadmium plating	
1980s	Stops the use of asbestos and specified bromine fire retardants	
1990s	Eliminates chlorofluorocarbons	
1999~2000		Ichinoseki Hirose Electric Co., Ltd., Koriyama Hirose Electric Co., Ltd. and Tohoku Hirose Electric Co., Ltd. acquires ISO14001 certification
2002		Hirose Electric (including the above domestic factories) expands the certification area and switches to an integrated ISO14001 certification.
2003	Promotes lead-free products	
2004	Stops the use of chlorine organic solvents (dichloromethane) Formulates the Hirose Electric Group Code of Conduct	Hirose Electric Malaysia , P.T.Hirose Electric Indonesia and Hirose Electric (Dongguan, China) acquires ISO14001 certification Participates in Japan Green Procurement Survey Standardization Initiative (JGPSSI)
2005	Complies with the RoHS directive (begins to supply substitute products not containing RoHS prohibited substances) Installs X-ray fluorescence spectrometers in all production sites both in Japan and abroad	
2006	Complies with the RoHS directive (All major products no longer contain RoHS prohibited substances)	
2007	Stops the manufacture of products that do not comply with the RoHS directive (except for some customized products) Increases the number of X-ray fluorescence spectrometers (at Koriyama and Ichinoseki Factories) Begins preparations to comply with the REACH directive Complies with the EuP directive (directive on eco-design of energy-using products) PFOS survey (compliance with the Stockholm Convention on Persistent Organic Pollutants (POPs Convention)) Revises the Hirose Electric Group Code of Conduct	Joins the Joint Article Management Promotion Consortium (JAMP)
2008	Formulates the information security policy	
2009	Formulates the business continuity plan (BCP)	Hirose Electric (Suzhou, China) acquires ISO14001 certification
2010	Begins to increase halogen-free products Establishes the CSR Committee	
2011	Promotes reduction in use of resources and CO_2 emissions Begins preparations to comply with the revised RoHS	
2012	Begins activities to preserve biodiversity Revises the Hirose Electric Group Code of Conduct	Participates in the UN Global Compact Participates in domestic subcommittee, VT62474, of IEC/TC111
2013	Ceases manufacture of products that contain dibutyltin compounds	
2014	Begins preparations for revision of ISO14001	
2015	Begins preparation for the expected revision to the RoHS directive (banning of phthalate-containing products)	
2016	Completes migration to ISO14001:2015	
2017	Responds to the revision to the RoHS directive (banning of phthalate-containing products and guidance on alternative products)	Withdraws from domestic subcommittee, VT62474, of IEC/TC111
2018	Completes responses to the revision to the RoHS directive (banning of phthalate-containing products and guidance on alternative products)	

Third-party Opinion



Kazue Ichino Takahashi
Professor,
Faculty of Engineering,
Department of Environmental Systems Sciences,
Musashino University.

Based on the information provided in the Sustainability Report of the Hirose Electric Group, I have assessed the extent of information disclosure of the group's CSR activities and activities to reduce environmental impacts, and have identified both commendable aspects and areas where improvement is desirable.

Activities in fiscal year 2018

First, I think the intention to comply with laws and regulations, as well as the intention to fulfill social responsibilities with higher ethical standards and integrity, is well understood throughout the company and the point that the Code of Conduct is clearly shown and the promotion system is established should be highly valued. In particular, the fact that systematic design reviews have not only meet customer requirements and laws, but also reduced paper usage, shortening periods and reducing cost should be highly appreciated. Furthermore, if the function of life cycle cost accounting could be added, resource conservation could be expected.

Next, not only did the company work on energy-saving measures for LED lighting and preferable air conditioning to reduce environmental impacts, it also introduced solar power generation equipment to Miyako and Ichinoseki Factories, which showed great progress. In fiscal year 2018, although the company's reduction of energy usage per unit of sales was 2.6%, unable to achieve its target of 5.85%, due to the addition of facilities, I hope that the company will continue to make efforts with a long-term view, without being limited to temporary results. In addition, improvements in printing methods and digitizing materials have greatly reduced paper usage by 40.7%, whereas the target was 5.58%. I would say this is a great achievement. The company has also achieved its target for waste, but I expect it would continue to promote proper disposal in the future as well, while it takes on the challenges of reducing the amount of toxic poisons found in specific wastes, by introducing new technologies and revising processes.

Future activities

I think we can value the fact that the relationship with the SDGs has been settled in the Sustainability Report for this fiscal year, in contributing to "Sustainable Development Goals (SDGs)" through business and environmental activities. I hope that the company will promote corporate activities with consideration of SDGs in the future, as an international corporation. Also, the connector, which is a major product of the Hirose Electric Group, has been qualitatively evaluated for its contribution to a sustainable society and reducing environmental impacts. However, it may be considered that the direction and progress of development will become clearer by addressing quantitative social and environmental impact assessments.

Finally, I hope that the company will continue to challenge itself globally to contribute to a sustainable society with its high-reaching philosophy and technological capabilities.

Response to the Third-party Opinion

Over the last three consecutive years, we received an evaluation of our Sustainability Report from Professor Kazue Takahashi, Department of Environmental Systems Sciences, Faculty of Engineering, Musashino University. We sincerely appreciate her input.

Our company, being a manufacturer, is required to respond to customer requests and comply with the requirements, however, we consider reducing resource usage at the design stage and by checking product design and production process design during design review, we try to shorten the development period and reduce the risk of producing defects. However, our target has not yet been achieved due to further miniaturization and requests for additional functions. Although we received some specific recognition this time, we have also received some additional advice, thus we will continue to make efforts. In order to reduce environmental impacts, we have installed LED lighting and renewed air conditioners as well as installed solar panels. However, due to factors such as the addition of facilities in each factory, we could not achieve our target for fiscal year 2018. In this respect, we shall continue our efforts from a long-term perspective.

In this Sustainability Report, we have clearly shown our specific relationships and initiatives for SDGs. As a member of the international community, we will strengthen our activities to achieve the common goals by clearly showing what we can do to achieve those goals.



Naofumi Miyazaki
Manager Environment Management Office

Contact Information

Environment Management Office
Hirose Electric Co., Ltd.

6-3, Nakagawachuo 2-chome, Tsuzuki-ku, Yokohama, Kanagawa, 224-8540, Japan
TEL: +81-45-620-3563; FAX: +81-45-591-3727