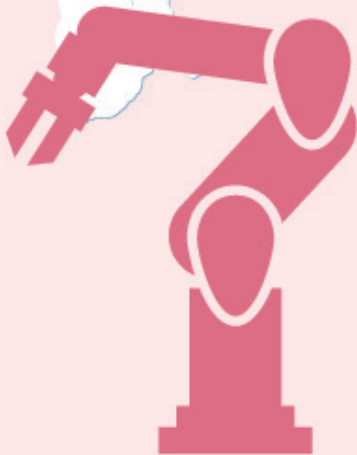


SUSTAINABILITY REPORT 2021





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, 2020 to March 31, 2021

Companies covered by this report

Hirose Electric Co., Ltd.
 Tohoku Hirose Electric Co., Ltd. (Miyako Plant)
 Koriyama Hirose Electric Co., Ltd. (Koriyama Plant)
 Ichinoseki Hirose Electric Co., Ltd. (Ichinoseki Plant)
 *The activities of some of our overseas production sites are also covered in this report. As of Sustainability Report 2015, CO₂ emissions by overseas sites and our business partners, both within and outside of Japan are presented.

Date of publication

September 2021

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 Plant," Koriyama Hirose Electric Co., Ltd. as the "Koriyama Plant," and Ichinoseki Hirose Electric Co., Ltd. as the "Ichinoseki Plant."

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.

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Message from the Top



Kazunori Ishii
President and
Representative Director

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

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

The Group has been promoting CSR as part of its corporate policy by reviewing its existing activities such as environmental protection and compliance within the framework of "Corporate Social Responsibility (CSR)". At the root of all of these activities is our corporate philosophy. The Group's approach to CSR is rooted in two fundamental principles: "Linking Wisdom" and "The Small Idea".

Our slogan, "An Electronics Company that Connects Wisdom," expresses our desire to maintain a high quality management structure in an efficiently run organization by constantly looking at our own company on a small scale, humbly seeking out the insight from those outside the organization, and connecting the vast amount of wisdom and knowledge we have accumulated.

Our approach to CSR is also based on this philosophy. We are committed to fulfilling our social responsibility for the development of a global society through the honest and humble efforts of each and every employee to fulfill his or her role.

Publication of Sustainability Report 2021

Hirose Electric and its group companies have produced the Sustainability Report 2021 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: 133,538,000,000yen

(for the year ended March 31, 2021/Consolidation)

Operating profit: 27,885,000,000yen

(for the year ended March 31, 2021/Consolidation)

Number of employees: 4,859

(for the year ended March 31, 2021/Consolidation)

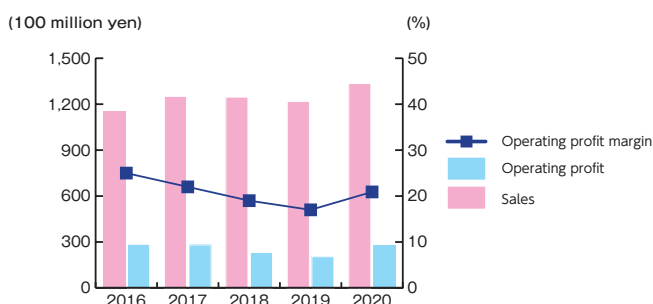
Address of Headquarters:

2-6-3 Nakagawa Chuoh, Tsuzuki-ku, Yokohama 224-8540, Japan

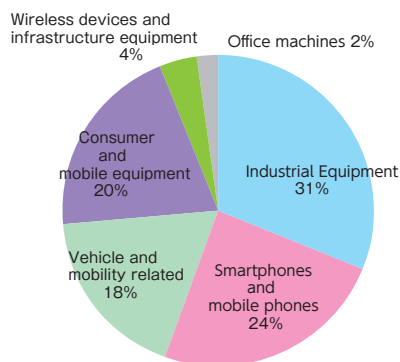
Number of subsidiaries:

3 in Japan, and 13 outside Japan

Changes in sales and profit



Breakdown of sales by application area



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

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]

<p>Industrial/Medical equipments and Others</p>	<p>Smartphone/Wearable devices</p>	
<p>Communication devices</p>	<p>Vehicles</p>	<p>Consumer/Computer peripheral devices</p>



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 | 10. Facilitation Payments |
| 2. Relations with Society | 11. HRS Group Basic Policy on Labor Management |
| 3. Relation between Personnel and Workplace | 12. HRS Group Basic Policy for Information Security |
| 4. Management of Company Assets and Information | 13. HRS Group Responsible Minerals Procurement Policy |
| 5. Scope of Application and System for Promotion | 14. HRS Group basic Policy on Corporate Ethics Management |
| 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 | |

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 assigned a CSR and Risk Officer as a person in charge of promoting CSR activities, and a CSR and Risk Secretariat in charge of the practical work of the CSR activities.

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



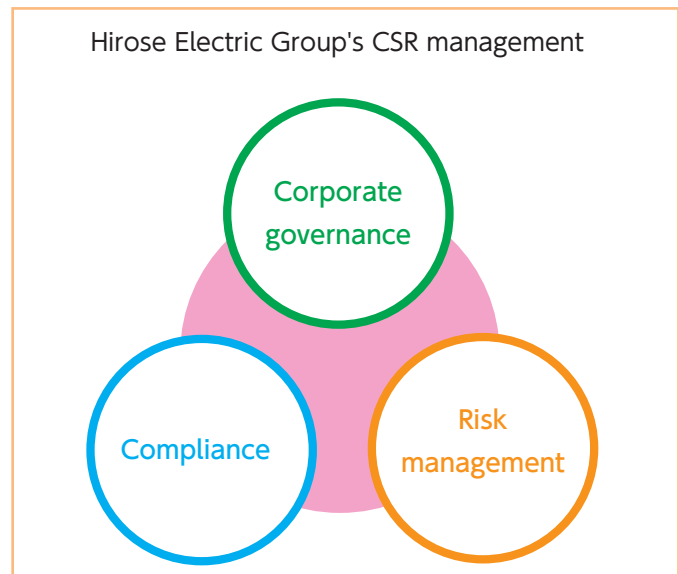
CSR Management

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 five 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.



【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.

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.



Training camp for new recruits

【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. We are also engaged in other activities, such as providing scholarship assistance to international students from various Asian countries through the Hirose Foundation (a public interest incorporated foundation) chaired by our President and Representative Director.



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.

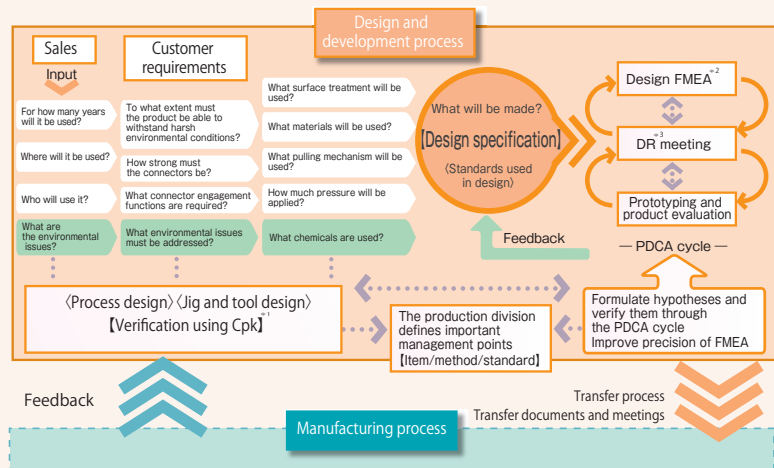
Ever since a list of substances of high concern (SVHC) associated with the REACH regulation*2 was first released in November 2008, we have been meeting the compliance requirements for substances on the list, which is updated frequently, and publicly disclosing information regarding chemicals used in 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 ten specified toxic substances in electric and electronic products: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE), and four kinds of phthalate esters (DEHP, BBP, DBP, DIBP).
- * 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 2020 and Targets for Fiscal Year 2021

The following table shows the results of fiscal year 2020 and the CSR targets of the Hirose Electric Group for fiscal year 2021. 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 2020	Results of fiscal year 2020	Evaluation	Targets for fiscal year 2021
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.	Maintained internal regulations based on the annual plan and established a system to engage in the PDCA process based on those regulations.	○	Maintain the CSR management system and enhance PDCA to make improvements.
	Support of the responsible minerals procurement policy	Continue approaches according to the Sourcing Policy for Conflict Minerals that has been made public by the company, and educate employees and inform suppliers.	Our publicly-announced Sourcing Policy for Conflict Minerals was renewed as the Responsible Minerals Procurement Policy, and posted it on our website. Engaged in efforts in accordance with this policy, and educated our employees and informed suppliers.	○	Engage in approaches according to the Responsible Minerals Procurement Policy that has been made public by the company, and educate employees and inform suppliers.
	Enhance customer satisfaction	Strengthen risk analysis and countermeasures in collaboration with technical departments. Speed up the initial response to customer inquiries and investigation of the root cause by improving the system, as well as using the tools appropriately.	Actively investigated the root cause of customer dissatisfaction. Worked to improve the system for responding to customer inquiries and to improve the accuracy and speed of responses.	△	Strengthen defect prevention by collaborating with the technical and manufacturing departments so as not to have to bother with customer anxiety and dissatisfaction
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 reviewed the rules that require suppliers and production contractors to engage in CSR initiatives, but did not end up adopting the new rules.	△	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.	In-house simulation training was carried out ahead of time in the event that the supplier's production facilities did not function.	△	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 2020	Results of fiscal year 2020	Evaluation	Targets for fiscal year 2021
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.	Conducted training on preventing information leaks and power harassment.	○	Continue to conduct training on harassment.
	Promote industrial safety and health	Continue industrial safety and health activities, including those at overseas plants.	Each business establishment, including each overseas plants, 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 plants.
	Adopt BCP in overseas plants	Study measures for resolving issues related to product supply in times of emergency, including those at overseas plants, 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 plants.	△	Study measures for resolving issues related to product supply in times of emergency, including those at overseas plants, and establish an organizational structure for supply.
	Promotion of infection control measures	Review the current response manual for all infectious diseases in general and be prepared for forthcoming infections.	A task force was established to deal with the spread of the novel coronavirus, and measures were taken as appropriate (ongoing).	○	Review the current response manual for all infectious diseases in general and be prepared for forthcoming infections.
4.Responsibilities to stockholders and investors	Promote IR activities	Continue IR activities by providing our investors with information through quarterly financial results briefing sessions and disclosing information in a timely manner through our website, and further strengthen the disclosure of non-financial information such as ESG and the provision of information to individual investors.	Webcasted quarterly financial results briefing sessions, mainly due to the impact of COVID-19. Were also able to approach overseas investors by phone and via the web. Began distributing the summary of financial results and company guides via the web, and will continue to do so in the future.	○	In addition to conventional investor support, strengthen ability to broadcast non-financial information that takes ESG and SDGs into account, and promote the broadcast of information internally and externally. Expand and improve the efficiency of IR business.
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.




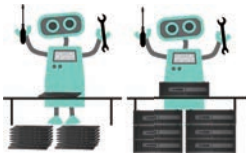

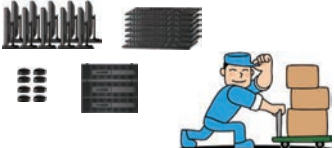

Recognizing that in an endeavor to preserve the environment it is important to adopt environmental management that both is effective and conforms to the relevant environmental management system standards. Hirose Electric and its group companies are committed to conforming to the international standard 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	<ul style="list-style-type: none"> It is possible to replace only the faulty parts. 	<ul style="list-style-type: none"> It would be necessary to replace the entire unit rather than only the faulty parts. 	<ul style="list-style-type: none"> Increase in waste Uneconomical replacement of the entire unit
Expandability	<ul style="list-style-type: none"> Devices can be added if and when necessary. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Increase in power consumption Increase in resources used Uneconomical installation of unnecessary devices Increase in waste Uneconomical replacement of the entire unit
Productivity	<ul style="list-style-type: none"> Difference devices can be produced in parallel. 	<ul style="list-style-type: none"> Since devices cannot be produced separately, production would be inefficient. 	<ul style="list-style-type: none"> Drop in production efficiency Increase in power consumption
Transport ability	<ul style="list-style-type: none"> Parts of a large product can be transported separately. 	<ul style="list-style-type: none"> Since a product cannot be disassembled into separate parts, transportation would be inefficient. 	<ul style="list-style-type: none"> 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

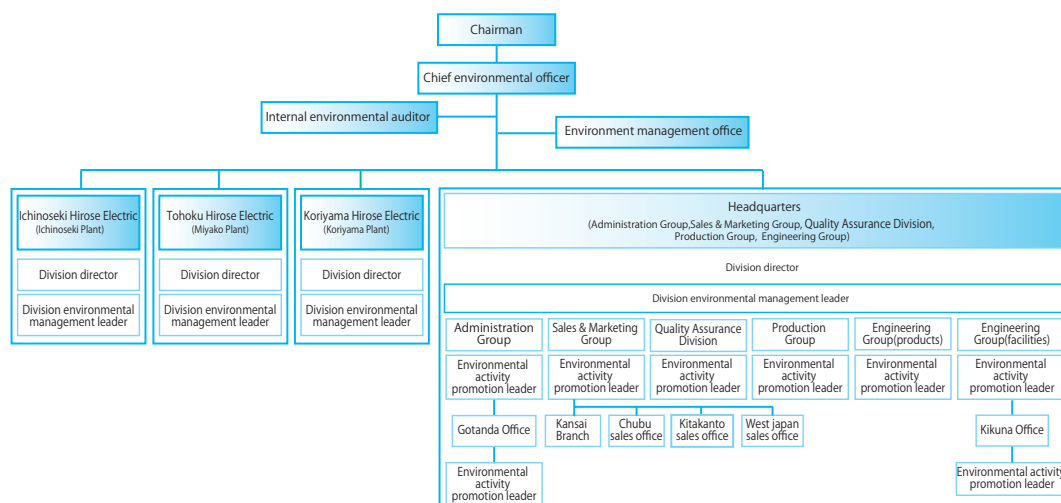
Environmental Management Structure

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 plants: 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 plants, divisions, and departments set their own objectives and engage in their own environmental management activities. Each month, individual plants 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 plants, acquired an integrated certification. This demonstrates our commitment to environmental protection. We completed migration to the revised standard (ISO14001:2015) in 2016.

All of our overseas plants 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 plant), 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)

Setting environmental targets linked to SDGs

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.

We have built a system to link our environmental targets with the SDGs, and are promoting the environmental targets that we set by focusing on the SDGs. We are also raising awareness of the SDGs by requesting cooperation by displaying explanatory text on water and power conservation to contribute to the SDGs.



Water and power conservation poster for SDGs (Ichinoseki Plant)

		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)
	Clean, accessible water for all is an essential part of the world we want to live in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		
	Energy is central to nearly every major challenge and opportunity.	<input type="radio"/>		<input type="radio"/>							<input type="radio"/>	
	Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs.	<input type="radio"/>		<input type="radio"/>					<input type="radio"/>			
	Investments in infrastructure are crucial to achieving sustainable development.	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>		<input type="radio"/>	
	There needs to be a future in which cities provide opportunities for all, with access to basic services, energy, housing, transportation and more.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	Responsible Production and Consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>			<input type="radio"/>
	Climate change is a global challenge that affects everyone, everywhere.	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>			<input type="radio"/>		<input type="radio"/>	
	Careful management of this essential global resource is a key feature of a sustainable future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



☑ 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 plant. 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 plant. 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 2019, as had been the case in previous years.

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.



Environment patrol
(Confirming that waste deposit areas comply with laws and regulations)

VOICE

Product-related chemical substance legal and regulatory efforts

In order to “contribute to the protection of peoples’ health and the environmentally-friendly collection and disposal of waste from electrical and electronic equipment” at the Koriyama Plant, we take efforts, at stages before waste is produced, to forbid the use and prevent the inclusion of hazardous chemical substances in the materials used in, and the processes used to manufacture, our main connector products.



Kouhei Yaginuma
Koriyama Plant
Quality Assurance Team



RoHS/ELV compliant fluorescent X-ray analyzer



Thermal desorption mass spectrometer
(Phthalate ester inspection device)

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 2020, the audit was conducted from August 3 to September 4.

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 2020 the periodic audits were conducted from October 27 through 30. 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



Environmental Education(Koriyama Plant)



Training to prevent oil leaks during equipment maintenance



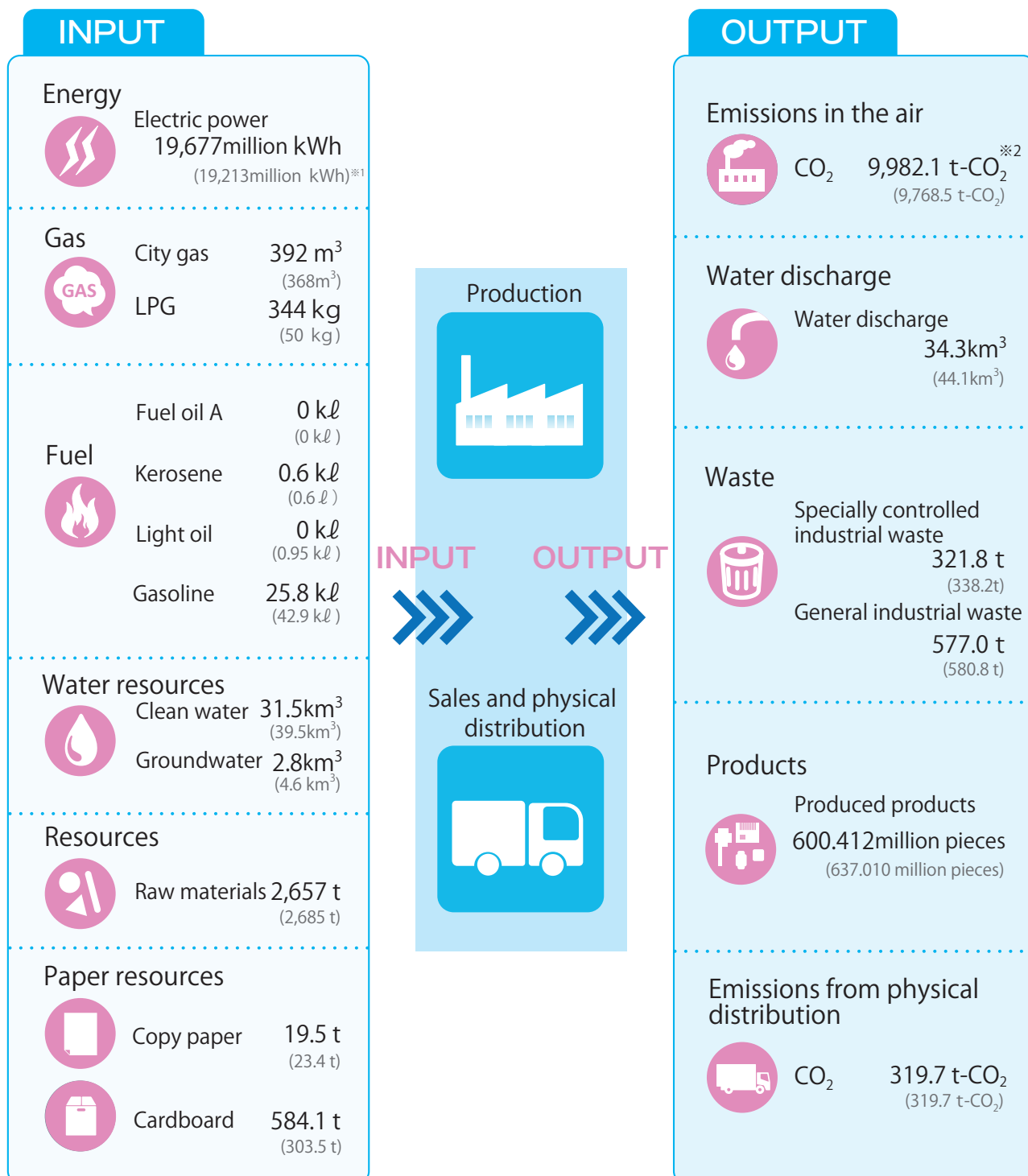
Training for responding to kerosene tank leaks



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 2020 are listed below.



* 1 () shows data for fiscal year 2019.

* 2 The real CO₂ 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 plant and divisions have set specific activity objectives and are working to reduce the environmental impacts of their operations.

In addition to these environmental objectives, 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.”

We will continue to promote the achievement of targets for future environmental protection activities.

Hirose group's objectives	Targets for fiscal year 2020	Achievement in fiscal year 2020	Evaluation
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%	○
	Improving the in-process defect rate	Cleared the achievement standard	○
	Reduce spoilage cost	Cleared the achievement standard	○
	Hold regular quality improvement meetings	Completed as planned	○
	Reduce inventory waste of individual items and products	Cleared the achievement standard	○
Reduce waste and operate efficiently	Enhance productivity by improving machine takt time (rate of progress: 80% or more)	Cleared the achievement standard	○
	Compliance with the Act on the Rational Use of Energy (average reductions of 1% per year)	Cleared the achievement standard	○
	Reduce waste in testing center work	Cleared the achievement standard	○
	Reduce the cost of surface treatment work (reduced use of gold, site improvements, waste reduction)	Cleared the achievement standard	○
	Promote improvement proposal activities	Cleared the achievement standard	○
	Build an AI chatbot to reduce the number of man-hours spent on inquiries	Cleared the achievement standard	○
	Implement an environment patrol	Completed as planned	○
	Reducing mold making lead time	Cleared the achievement standard	○
	Streamline distribution routes	Cleared the achievement standard	○

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)

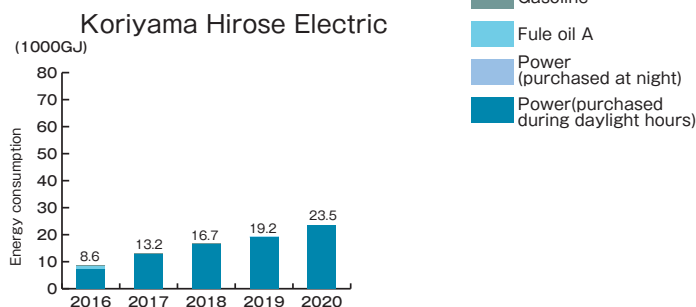
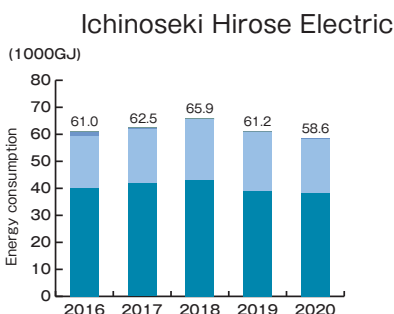
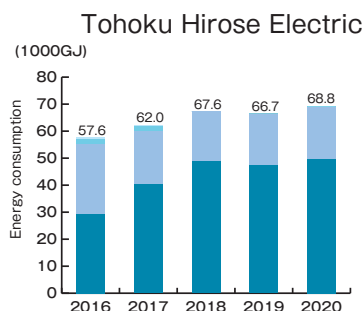
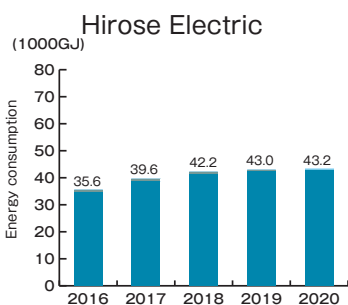
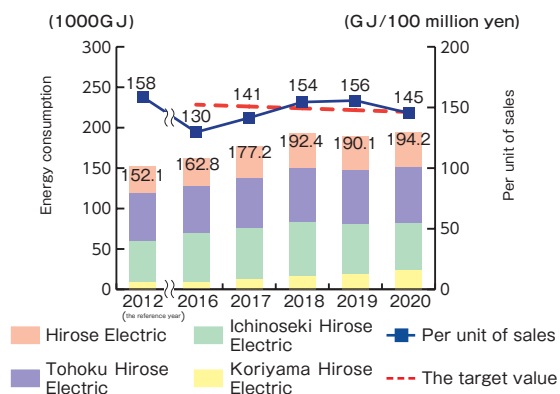
Based on the Hirose Electric Group's long-term vision*1 of reducing energy consumption by 7.73% or more by the end of fiscal year 2020 compared to the reference fiscal year 2012, we are doing business with a target of reducing energy consumption by 1% annually, on average. We have put up posters in offices and plant 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 plant was changed to LED lights, and the boilers were replaced with air conditioners, so Heavy Oil A was no longer used. We reduced use by 8.28% for our fiscal year 2020 (final year of the long-term goal*2) goal of 7.73% reduction and thus achieved our goal.

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

* 2 Our long-term goal for beyond fiscal year 2021 extends our previous long-term goal through to 2030.

Energy consumption



- Light oil
- LPG
- City gas
- Kerosene
- Gasoline
- Fule oil A
- Power (purchased at night)
- Power (purchased during daylight hours)



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



Solar panel
Solar power generating station (Ichinoseki Hirose Electric)



Solar power monitor



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)

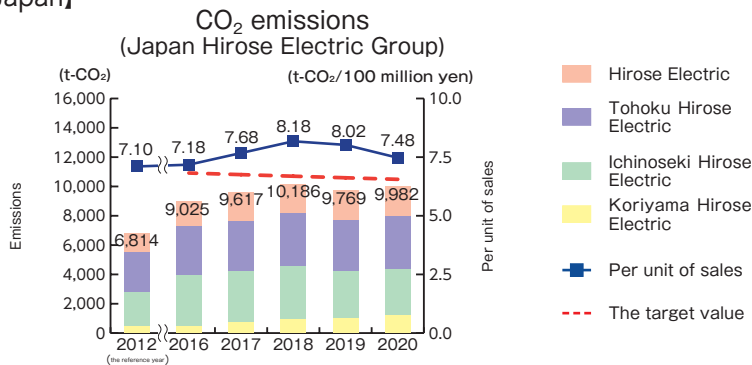
Most greenhouse gas emissions from the Hirose Electric Group arise out of our use of electric power, fuel oil A and gasoline. Most are indirect CO₂ emissions produced through electricity generation using fossil fuels.

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 CO₂ emissions factor*1 approximately 30% compared to the reference year 2012. Consequently, we increased CO₂ emissions by 5.25% for our fiscal year 2020 (final year of the long-term goal*2) goal of 7.73% reduction and thus not achieved our goal. The Hirose Electric Group also controls energy consumption and CO₂ emissions at its overseas sites and its partner companies, both within Japan and overseas. Mainly due to reduced activity and the impact of COVID-19, fiscal year 2020 worldwide CO₂ emissions were down from fiscal year 2019.

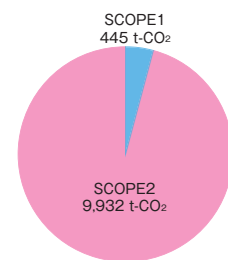
* 1 We used the real CO₂ emission factors provided by individual electric power companies for CO₂ emissions in Japan and the factors given in the Greenhouse Gas (GHG) Protocol for CO₂ emissions overseas.

* 2 Our long-term goal for beyond fiscal year 2021 extends our previous long-term goal through to 2030.

[Japan]

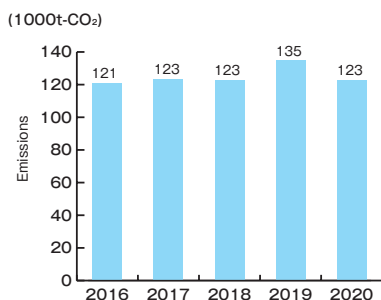


CO₂ emissions in (fiscal year 2020) (Japan Hirose Electric Group)

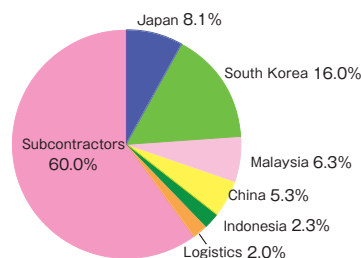


[Worldwide]

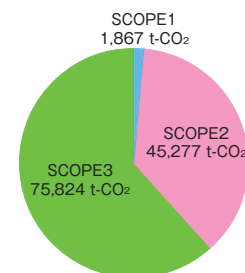
CO₂ emissions (includes overseas sites, subcontractors at home and overseas, logistics)*3



Percentage of CO₂ emissions (fiscal year 2020)



CO₂ emissions by the entire supply chain (fiscal year 2020)



* 3 We have calculated the overall amount by sampling primary subcontractors's CO₂ emissions caused by our purchase taking into account the yearly coverage rate (52% - 85%). The scope of CO₂ emissions in logistics : our domestic dedicated truck, export flight, import flight.

SCOPE 1: CO₂ emissions by the Hirose Electric Group
 SCOPE 2: CO₂ emissions by power companies used by the Hirose Electric Group
 SCOPE 3: CO₂ 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 plant.
- Select efficient distribution routes.
- Change shuttle trucks between Hirose plant from 2-ton trucks to lightweight trucks.
- Replace conventional cars used in plant with hybrid cars and electric vehicle.



Hybrid cars



Electricity forklift

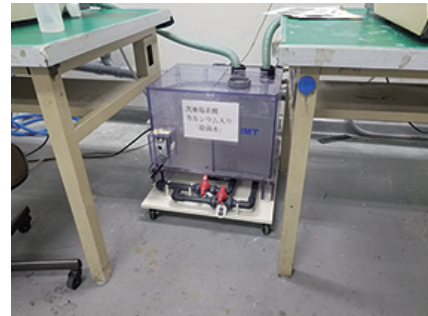
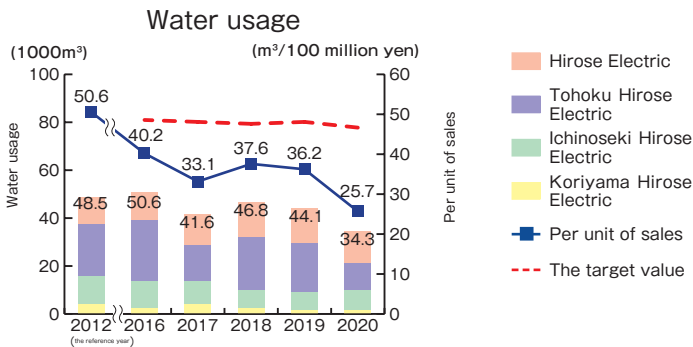
Reduction of Water Usage

[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.

We reduced use by 49.23% for our fiscal year 2020 (final year of the long-term goal^{*1}) goal of 7.73% reduction and thus achieved our goal.

*1 Our long-term goal for beyond fiscal year 2021 extends our previous long-term goal through to 2030.



Water Recirculation System
(Water to be used in prototype cross section cut)

Reduction of Paper Usage

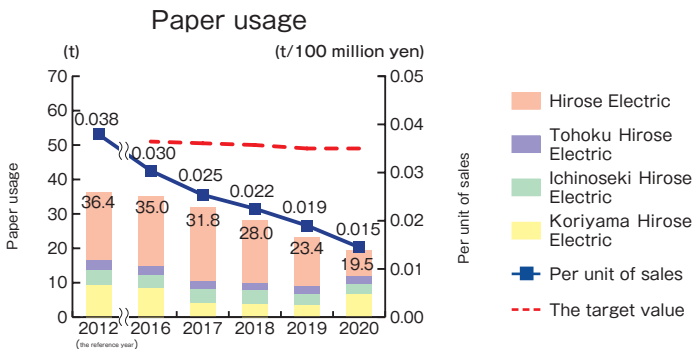
[Long-term target] Reducing our usage per unit of sales by 1% on average for each year up to 2020 (improvement by 7.73% or more by the end of fiscal year 2020 compared to the reference year 2012)

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, we reduced use by 61.60% for our fiscal year 2020 (final year of the long-term goal^{*1}) goal of 7.73% reduction and thus achieved our goal.

*1 Our long-term goal for beyond fiscal year 2021 extends our previous long-term goal through to 2030.



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. Waste is properly classified and managed.

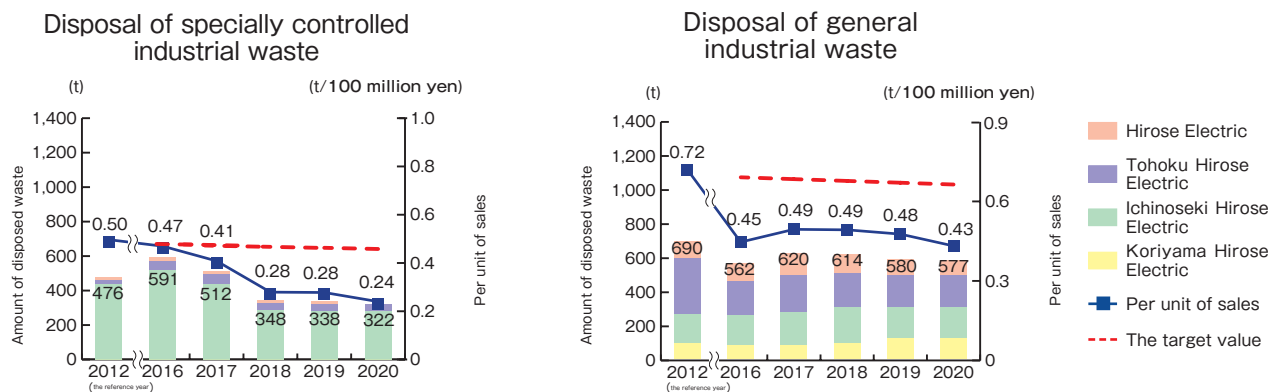
Specially controlled industrial waste is stored and processed at specified storage facilities under strict conditions.

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.

We reduced disposal of specially controlled industrial waste by 51.48% for our fiscal year 2020 (final year of the long-term goal¹⁾) goal of 7.73% reduction and thus achieved our goal. We reduced disposal of general industrial waste by 39.94% for our fiscal year 2020 (final year of the long-term goal¹⁾) goal of 7.73% reduction and thus achieved our goal.

*1 Our long-term goal for beyond fiscal year 2021 extends our previous long-term goal through to 2030.



Collection of scrap metal



Checking on sorting for recycling

Activities for recycling sold products

Since connectors, which are Hirose Electric Group's main products, are incorporated into end user products, it is difficult for us to recover them on our own when recovery of such end user products is required. Therefore, at the design stage, we make our products easy to disassemble under the assumption that they will be recycled.

Furthermore, to make our products easy to sort, we try to display material names in the resin material, as long as there is space to do.



Reduction of Environmental Impacts through Green ICT

Use of Q&A Chatbots that Incorporate AI Technology

To reduce the number of man-hours spent responding to inquiries, the Hirose Electric Group is implementing Q&A chatbots designed to respond to inquiries about system use methods, etc. Chatbots are now commonplace and are being used by many people, and thus contribute to increased work efficiency. As chatbots expand, we regularly add Q&A so that they can respond to inquiries not just about how to use systems but to frequently asked questions based on log analysis and user feedback as well.

Furthermore, we have added a function called Suggest to increase the correct answer rate. This function is able to display candidate questions in a text box. When there are a lot of questions that use the same keywords, the correct answer rate can be increased by using this function to display candidates. Since responding to inquiries via chatbots in this way makes it possible to handle questions freely at any time, we expect it to improve work efficiency and reduce our use of electricity.



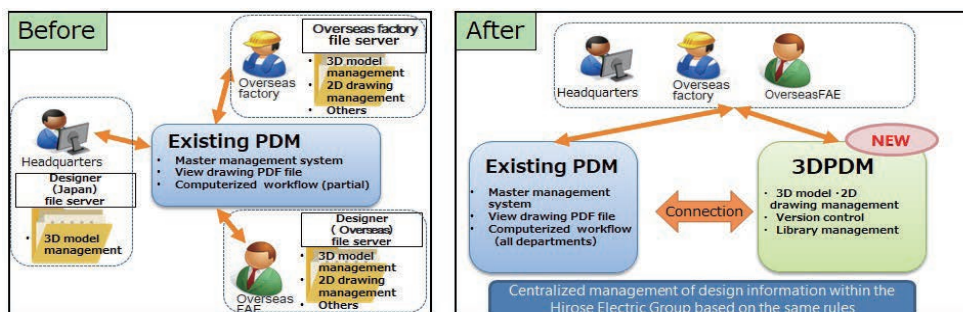
Image showing chatbot responses

Using PDM Systems to Improve the Efficiency of Design Work and Digitalize Approvals

The Hirose Electric Group has been advancing the creation and deployment of a 3D PDM system that manages 3D CAD data since fiscal year 2020. This system stores connector and production equipment 3D CAD data together with drawings, and manages latest versions and version numbers. Till now, some departments had been managing such design information using file servers. Use of this system has led to reduced search times when drawings are delivered, and to improved design efficiency via the creation of a common parts library.

Furthermore, connecting this system to the existing master management system makes it possible to complete workflows for escalations and approvals, etc. within the system. In the past, some processes required the printing of paper drawings so they could be stamped with approval stamps, but use of this system eliminates the need to print drawings and thus helps to conserve paper.

Going forward, use of this system will expand to everyone across the entire Hirose Electric Group thus improving work efficiency in the process.



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 for responding to kerosene tank leaks



Training for responding to waste plating liquid leaks



Emergency response training for chemical spills



Fire drills



Biodiversity Conservation

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

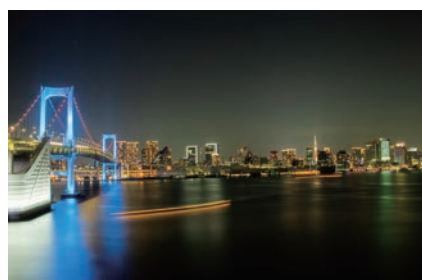
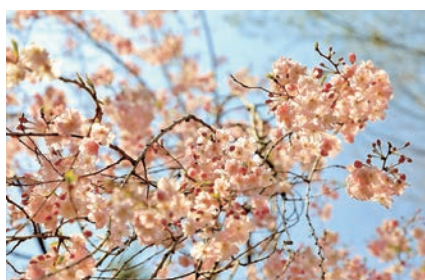
One of the measures we take to raise biodiversity consciousness among all Hirose Electric Group personnel is to provide them with e-learning opportunities on the subject. We then ask them to make a pledge regarding, and to implement, specific actions that they will take in everyday situations to come 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.

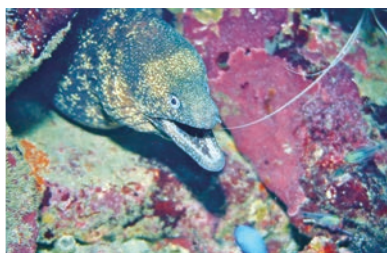
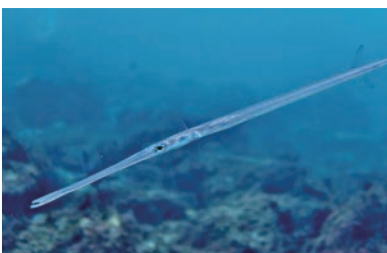
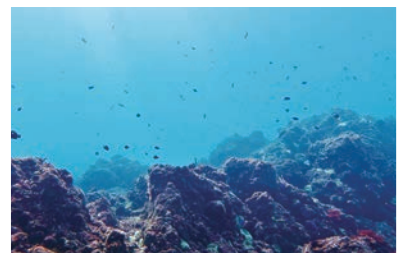
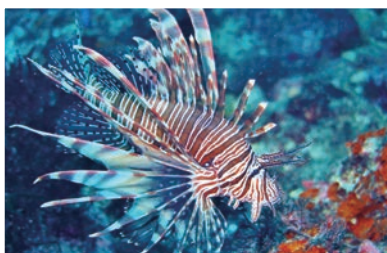
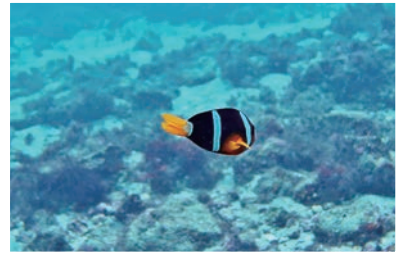
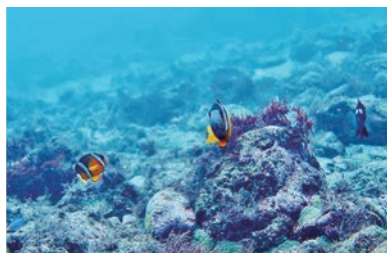
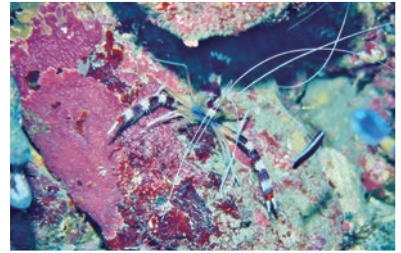
Raising awareness of biodiversity — Club activities —

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



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 (Headquarters)



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 2019, Hirose Technology Exhibition CONNEXTION 2019 was held in Tokyo and Osaka. The exhibition in 2019 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.(These get togethers were suspended this fiscal year due to COVID-19.)

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.



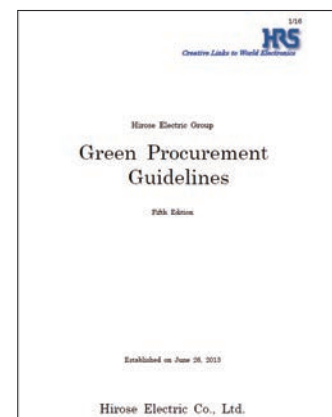
TOP training workshop



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.



Complaints on Environment from the Neighborhood and/or Stakeholders

Nothing in particular.

Activities at Group Sites to Reduce Environmental Impacts

Activities of Domestic Plant to Reduce Environmental Impacts

Koriyama Hirose Electric (Koriyama Plant)

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

The City of Koriyama is located in the center of Fukushima Prefecture, is a hub of economy, industry, distribution, and transportation, and is the second largest city in terms of population and economy in the Tohoku Region after the City of Sendai in Miyagi Prefecture.

The city is also a region blessed in terms of natural environment, with its western part located on the south shore of Lake Inawashiro and its eastern part located in the Abukuma Highlands.

At our Koriyama Plant, which is located in the City of Koriyama, we made the following efforts in fiscal year 2020 to reduce our environmental impact.

(1) Separation and collection of metal scrap

The metals used as connector raw materials come in many combinations, including copper alloys, steel (stainless steel), and the gold and tin, etc. used in plating. Since effective product recycling is impossible when materials are contaminated with scrap from these metals, we have created a system whereby we can tell the materials of metal scrap each product generates and the types of plating, and thus effectively separate them out.

We have been engaged in these activities continuously since we started operations in fiscal year 2012.

(2) Environmentally-friendly manufacturing

When we develop new connector products, we pursue product design, development, and manufacture in compliance with the RoHS Directive, which prohibits the use of hazardous substances. We pursue development through a process whereby, when a prototype is completed during new product development, we continue new product development only after using multiple analyzers to determine the prototypes contain no hazardous substances. In this way, we are pursuing the development of products with smaller environmental impacts.

We are pursuing environmentally-friendly production of mass production products as well by conducting regular tests to confirm they do not contain hazardous substances.

To protect Koriyama's abundant environment, we will continue these activities for reducing our environmental impact out of a desire to engage in environmentally-friendly manufacturing.



Yuichi Saito
Quality Assurance Team

[Koriyama Plant] Initiatives to Reduce Copy Paper

Let me introduce some details of our on-going efforts to reduce our use of copy paper, which we began in fiscal year 2019.

(1) We have thoroughly eliminated the distribution of meeting materials for both internal and external meetings by making them viewable on everyone's PC.

(2) All materials are printed double-sided and fonts are made as small as possible while remaining readable.

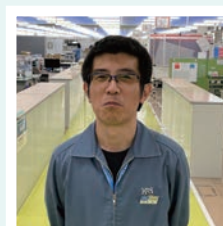
(3) Color copies are essentially forbidden. We post signs indicating that "Color copies cost 8 yen more per page than black and white ones!" to make everyone aware of this.

We will continue this going forward.

	カラー	白黒/赤黒
印刷代	9円/枚	1円/枚
紙代	2.96円/枚	2.96円/枚
合計	11.96円/枚	3.96円/枚

※コピーの際は、基本「白黒」までお願いいたします。
但し、必要な際は赤黒も白黒と同金額のため、印刷可。

Copy cost chart posted on copiers to make people aware of costs



Makoto Sakamaki
AMC Production Section

Tohoku Hirose Electric (Miyako Plant)

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

Miyako Plant 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 Plant is working hard to reduce environmentally hazardous substances.

We view "Reducing environmental impact=Improving quality=Reducing costs". 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.

Furthermore, since 2014, the Miyako Plant has been a Type 2 Designated Energy Management Factory under the Act on the Rational Use of Energy. The plant naturally submits periodical reports as well as medium- to long-term plans in accordance with this Act, and has achieved, or exceeded, its annual goals for reducing energy usage costs per unit of sales through the implementation of energy use reduction plans and on-going productivity improvement activities in line with these plans. As a result, the plant has maintained an S Rank in the business classification evaluation system.

To protect abundant mountain, river, and ocean natural environments, we will continue to engage in activities that reduce our environmental impact.



Tohoku Hirose Electric



Shinichi Kawamura
Quality Control Section

(Miyako Plant) 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 plant 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
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 Plant)

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

The Ichinoseki Plant faces Mt. Kurikoma, found in the center of Kurikoma Quasi-National Park to the west, and is surrounded by Mt. Murone and the mountains to the east, and is located in an area where you can feel the rich natural environment near many rivers such as the Kitakami River and the Iwai River.

In this beautiful environment, we practice corporate activities that take into account the impact on the local living environment.

In fiscal year 2020, the Ichinoseki Plant made efforts to fix air leaks as one measure for reducing its consumption of electricity. Visualizing air leaks and their severity enabled each workplace to grasp and gain an awareness of the actual circumstances of and fix air leaks. Fixing air leaks reduces wasteful operation of compressors and leads to reduced electricity usage. Air leaks were fixed in fiscal year 2020, and thus we are forecasting an annual reduction in electricity usage of 70,560 kWh in fiscal year 2021.

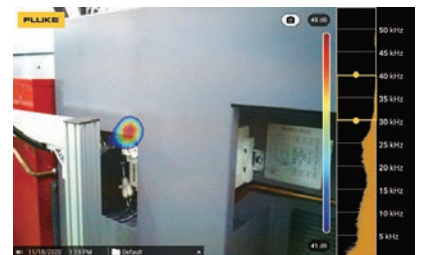
Furthermore, we used a cubicle^{*1} upgrade as an opportunity to implement a system whereby we can learn details on the amount of electricity being used in each area. Employees in each area are aware of the amounts of electricity actually being used in their own departments, and thus make efforts to effectively reduce them.

To protect abundant natural environments, we will continue to engage in activities that reduce our environmental impact.

*1 Cubicles are pieces of equipment housing machinery that converts high voltage to voltage that can be used in the facility.



Tsubasa Fujimura
General Affairs Sectionn



Visualizing air leaks using ultrasonic cameras

[Ichinoseki Plant] Management of Hazardous Substances in Products

The Ichinoseki Plant has long been working to prevent harmful substances contained in its products from escaping in post-processing.

In addition to the six substances previously regulated by the EU RoHS Directive, we introduced new analytical equipment in 2018, allowing us to evaluate the four additional regulated phthalate esters in-house. Phthalate esters (phthalates) are difficult to determine if they are mixed with plastic, so we had to commission an organization that does analysis to evaluate them, but it took a very long time (about 5 days for the shortest delivery time).

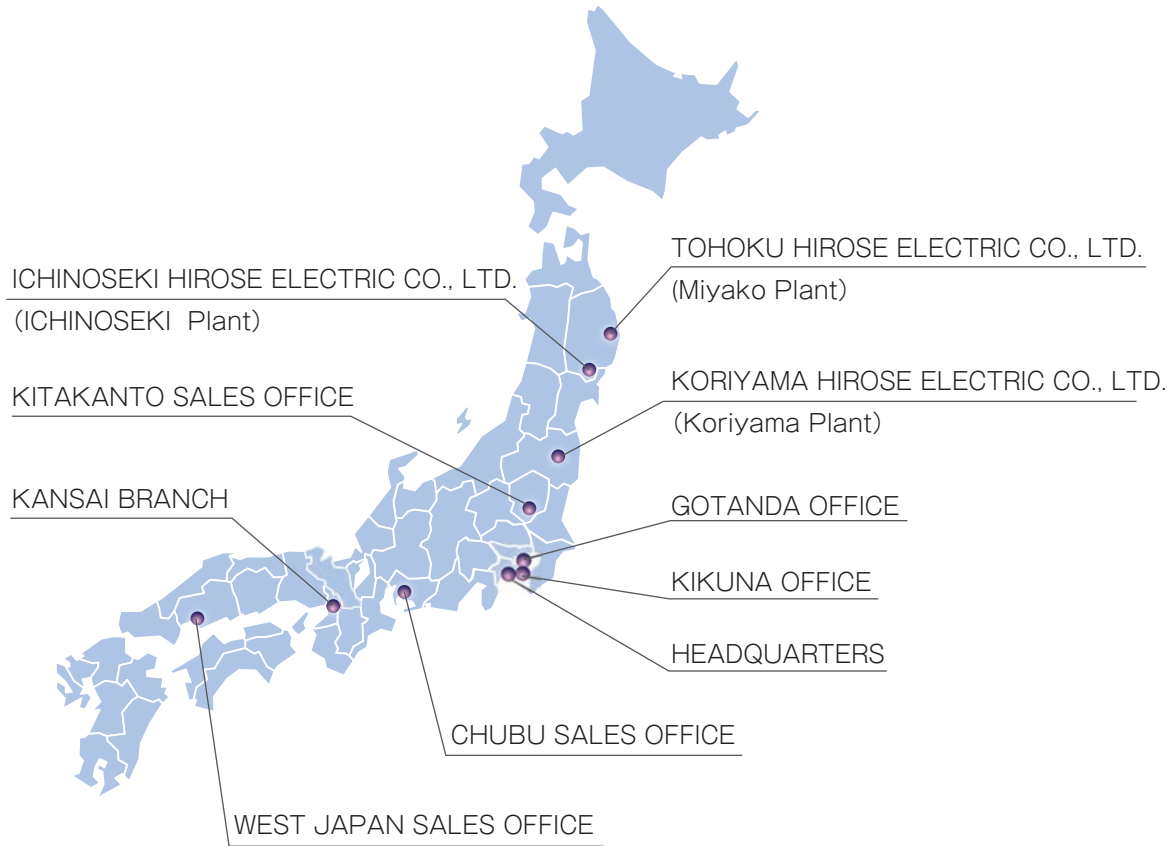
Therefore, in order to speed up the evaluation of new materials in new product development and the evaluation of alternatives to conventional products, we have established in-house phthalate ester analysis technology, which enables us to evaluate products in a short period of time.



Phthalate Esters Analyzer



Tomohiro Sakai
Quality Control Section



<Hirose Electric Co., Ltd.>

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3) KIKUNA OFFICE

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Japan

4) KANSAI BRANCH

Shinosakaiida Bldg. 7F, 1-5-33 Nishimiyahara,
Yodogawa-ku, Osaka 532-0004, Japan

5) CHUBU SALES OFFICE

Nomura Bldg. 4F, 2-7-12 Saiwaicho, Kariya, Aichi
448-0025, Japan

6) KITAKANTO SALES OFFICE

Chuoh-Utsunomiya Bldg. 5F, 3-1-1 Higashisyukugo,
Utsunomiya, Tochigi 321-0953, Japan

7) WEST JAPAN SALES OFFICE

Momiji-Hiroshima-Hikarimachi Bldg. 4F, 1-12-20
Hikarimachi, Higashi-ku, Hiroshima 732-0052, Japan

<SUBSIDIARIES>

1) TOHOKU HIROSE ELECTRIC CO., LTD.

Miyako, Iwate prefecture, Japan

2) ICHINOSEKI HIROSE ELECTRIC CO., LTD.

Ichinoseki, Iwate prefecture, Japan

3) KORIYAMA HIROSE ELECTRIC CO., LTD.

Koriyama, Fukushima prefecture, Japan

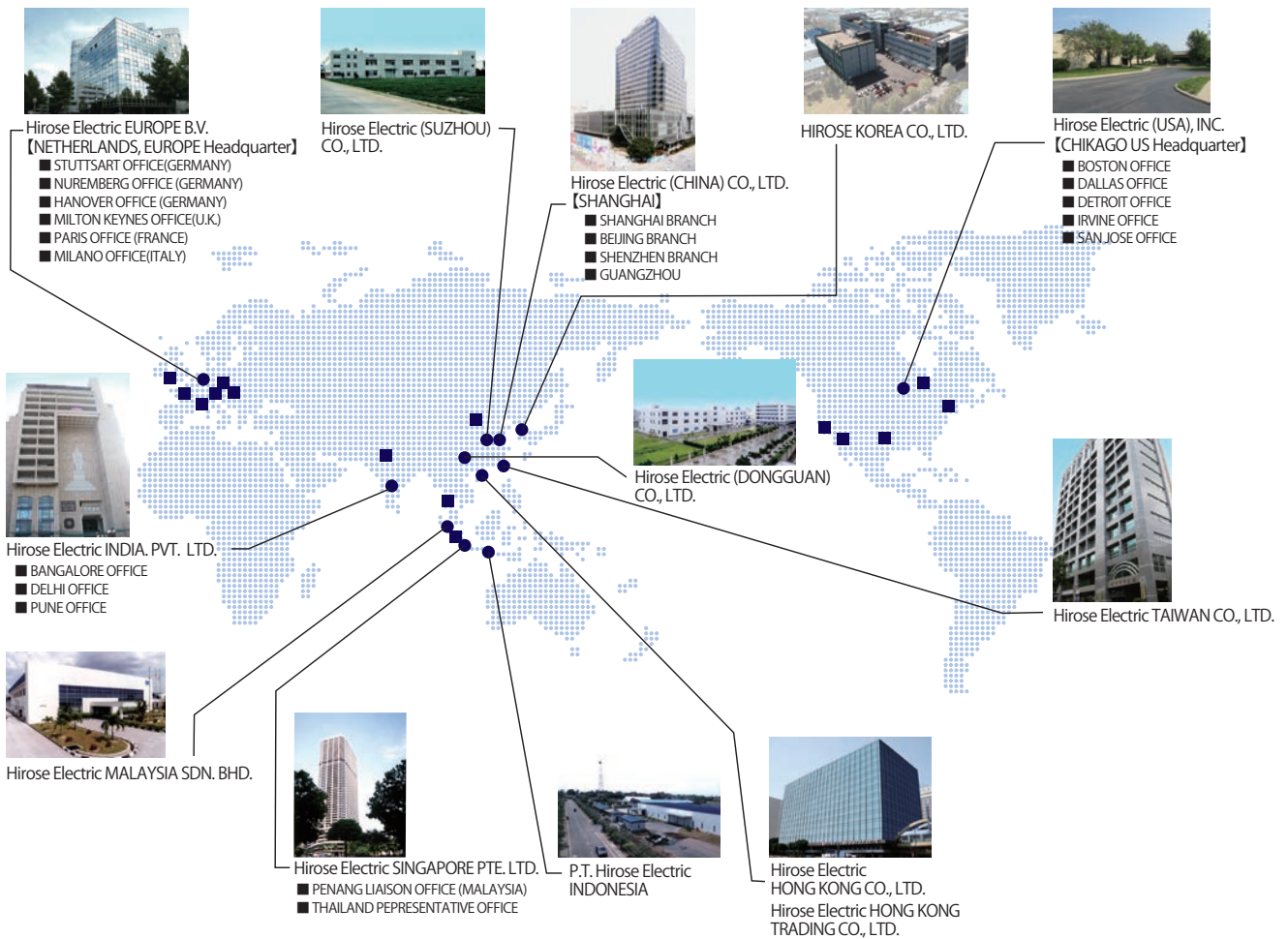


Activities of Overseas Sites to Reduce Environmental Impacts

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	Eliminating the use of CFCs in manufacturing processes.	
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 plant) 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 Plant) 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 (Discontinuation manufacture of products containing phthalates and guidance on alternative products)	
2020	Setting environmental targets linked to SDGs	

Third-party Opinion



Ryosuke Ugo
Professor,
Department of Materials
and Human Environment Sciences
Shonan Institute of Technology

Based on the information in the 'Hirose Electric Group Social and Environmental Report 2021', this section discusses what should be evaluated about the Group's CSR activities and what we expect to see in the future.

Activities in fiscal year 2020

In creating the latest third-party opinion, we first conducted direct interviews with managers of the Environment Management Office and the General Affairs & Legal Department. We would like to express our sincere gratitude for your precious time and meaningful exchange of opinions through which we gained a more concrete understanding of your company's activities.

We note that the Hirose Electric Group successfully increased sales and business profits in fiscal year 2020 as it expanded its global business in the face of the severe COVID-19 disaster that swept through Japan and the rest of the world over the past year. We see this as an achievement obtained via properly functioning CSR compliance that includes the environment.

We also see the Group has achieved 11 of a total of 15 CSR goals, and is reliably responding to customers and supporting compliance. Both items with respect to supply chain are ongoing, and we look forward to further results in the future.

From a macro perspective, we can see that your company's environmental impact is on a steady or slightly decreasing trend overall. By contrast, fiscal year 2020 LPG increased approximately 6.9 fold (from 50 kg to 344 kg), and cardboard increased approximately 1.9 times. Though we don't know the details, we suspect that utility-related energy conversion- and logistics-related activities created more burdensome activities than in normal years. We hope you will analyze the factors that caused this and reflect them in your activities next fiscal year.

Future activities

As we expect the international and social situations, including COVID-19, to become more and more chaotic from the latter half of fiscal year 2021, CSR (social, human, and environment) compliance, including risk responses, will have to be more complex and more integrated. Under these circumstances, we are convinced that your Group's enduring philosophy of "a small company connecting wisdom" is truly timely. To realize and execute this philosophy, establishing a companywide management system via appropriate information sharing and linkages between all departments is essential.

Thus, from the perspective of CSR compliance that includes the environment, the quality of activities can likely be further enhanced by making goals related to that support more specific (quantitative if possible). We also hope you will evaluate, even when self-evaluating, the results of these activities fairly, impartially, and as objectively as possible, and that you will promote the disclosure of information resulting from these evaluations. To that end, we would like you to consider information disclosure, including goal-setting concepts and evaluation criteria, about your CSR activities. We also recommend that, in addition to demonstrating the reliable and effective implementation of the PDCA process for your management systems, you explicitly disclose not only the goals and results for activities in the current fiscal year but also the activity goals for the next fiscal year based on those goals and results.



■ Response to the Third-party Opinion ■

I am sincerely grateful to Professor Ryosuke Ugo of the Department of Materials and Human Environment Sciences at the Shonan Institute of Technology for providing very valuable opinions about our environmental activities both this year and last year.

We received the latest opinions directly, albeit via the web, through an interview Professor Ugo requested.

Since we had never had such an experience, it was an excellent opportunity to hear opinions directly from the professor himself.

COVID-19 limited business trips and customer visits in fiscal year 2020, which thus limited direct communication with our customers, but we will overcome this unprecedented situation and continue to face this predicament by embracing our philosophy of "a small company connecting wisdom."

The increase in LPG and cardboard usage pointed out in the opinions may be due to an increase in logistics-related loads. We will confirm the exact contributing factors and use what we learn in future reduction activities.

We also appreciate the opinions on setting specific goals for environmental activities from the perspective of CSR compliance. On the international front as well, we are examining the proposal of milestones for determining how Hirose Electric should approach such major goals as realizing carbon neutrality by 2050, including the proposal of specific goals linked to those milestones.

Because we believe overcoming the VUCA era, in which it has been difficult to predict the future, requires the enhancement of non-financial indicators, such as ESG, we will make sure to continue to work on enhancing CSR.



Naofumi Miyazaki
Manager
Engineering Administration
Department
Environment Management
Office

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