



# ENVIRONMENTAL REPORT 2022



## 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, 2021 to March 31, 2022

## 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, CO<sub>2</sub> emissions by overseas sites and our business partners, both within and outside of Japan are presented.

## Date of publication

September 2022

## 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 Environmental Report 2022**

Hirose Electric and its group companies have produced the Environmental Report 2022 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: 163,671,000,000yen

(for the year ended March 31, 2022/Consolidation)

Operating profit: 40,765,000,000yen

(for the year ended March 31, 2022/Consolidation)

Number of employees: 5,070 (for the year ended March 31, 2022/Consolidation)

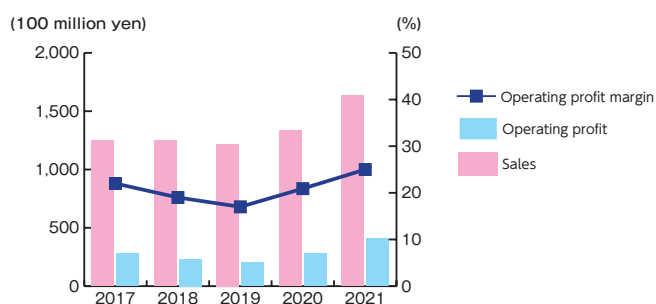
Address of Headquarters:

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

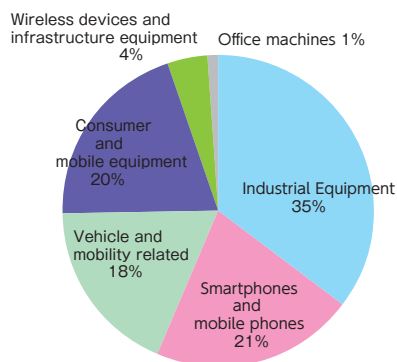
Number of subsidiaries:

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.

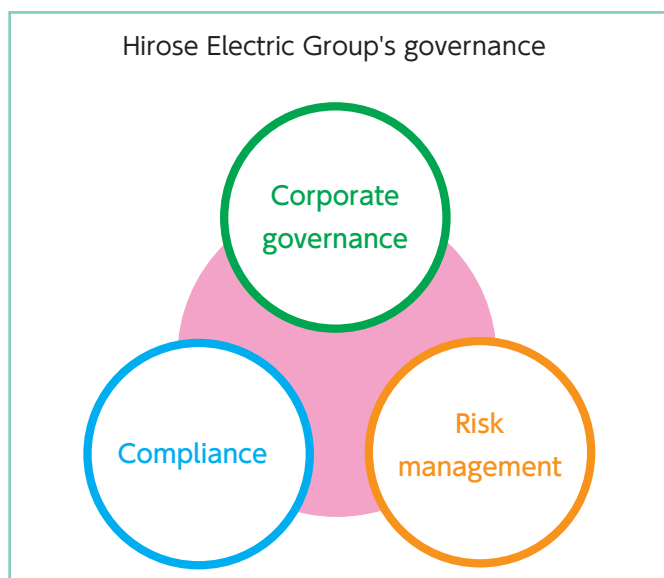
## Governance

Governance over the Hirose Electric Group is based around three central pillars: 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 the novel coronavirus 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\*<sup>1</sup> 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\*<sup>2</sup> 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.

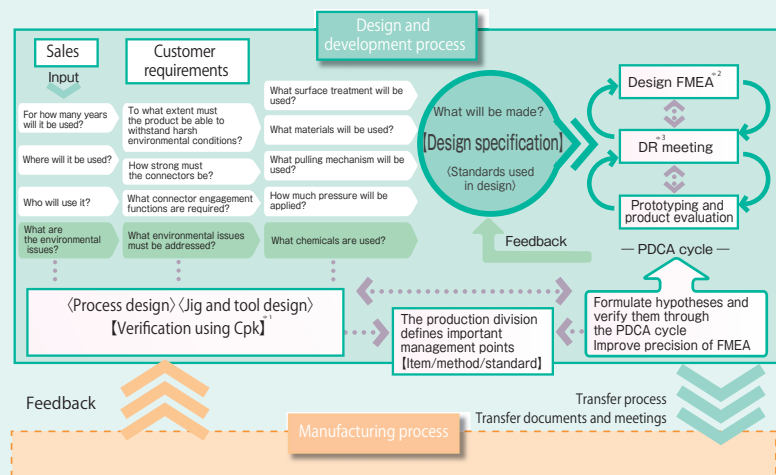
\* 1 RoHS directive: This was promulgated on February 13, 2003 and enforced on July 1, 2006 by the European Union (EU). This directive restricts the use of ten specified toxic substances in electric and electronic products: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated 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 2021 and Targets for Fiscal Year 2022

The following table shows the results of fiscal year 2021 and the CSR targets of the Hirose Electric Group for fiscal year 2022. 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 2021	Results of fiscal year 2021	Evaluation	Targets for fiscal year 2022
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 Responsible Minerals Procurement Policy that has been made public by the company, and educate employees and inform suppliers.	Engaged in approaches according to the Responsible Minerals Procurement Policy that has been made public by the company, and educated 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 prevention of defects in cooperation with the engineering and manufacturing departments to ensure that customers don't need to make inquiries about their concerns and dissatisfaction.	Implemented measures to ensure that customers use our products correctly and enhanced the relationship between customers and Hirose products. Also in the process of reviewing our quality standards to achieve higher customer satisfaction.	○	Continue analyzing the details of customer concerns and dissatisfaction and promote the investigation and resolution of common issues. Promote improvement activities for preventative measures in cooperation with the design and manufacturing departments.
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 2021	Results of fiscal year 2021	Evaluation	Targets for fiscal year 2022
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.	Reviewed the current response manual for all infectious diseases in general and made revisions. Implemented measures to address the novel coronavirus pandemic.	○	Continue implementation of measures to prevent infection by the novel coronavirus.
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.




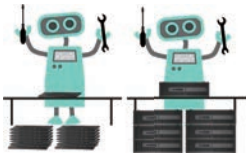

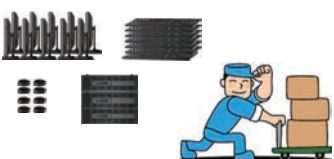

Recognizing that in an endeavor to preserve the environment it is important to adopt environmental management that both is effective and conforms to the relevant environmental management system standards. Hirose Electric and its group companies are committed to conforming to the international standard 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
Maintainability	<ul style="list-style-type: none"> <li>It is possible to replace only the faulty parts.</li> </ul> 	<ul style="list-style-type: none"> <li>It would be necessary to replace the entire unit rather than only the faulty parts.</li> </ul> 	<ul style="list-style-type: none"> <li>Increase in waste</li> <li>Uneconomical replacement of the entire unit</li> </ul>
Expandability	<ul style="list-style-type: none"> <li>Devices can be added if and when necessary.</li> </ul> 	<ul style="list-style-type: none"> <li>All potentially needed devices should be installed at the outset.</li> <li>Since functions that may later be found to be necessary cannot be added, the entire unit would have to be replaced.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in power consumption</li> <li>Increase in resources used</li> <li>Uneconomical installation of unnecessary devices</li> <li>Increase in waste</li> <li>Uneconomical replacement of the entire unit</li> </ul>
Productivity	<ul style="list-style-type: none"> <li>Different devices can be produced in parallel.</li> </ul> 	<ul style="list-style-type: none"> <li>Since devices cannot be produced separately, production would be inefficient.</li> </ul> 	<ul style="list-style-type: none"> <li>Drop in production efficiency</li> <li>Increase in power consumption</li> </ul>
Transportability	<ul style="list-style-type: none"> <li>Parts of a large product can be transported separately.</li> </ul> 	<ul style="list-style-type: none"> <li>Since a product cannot be disassembled into separate parts, transportation would be inefficient.</li> </ul> 	<ul style="list-style-type: none"> <li>Increase in use of transportation energy</li> <li>Increase in storage space</li> </ul>

## 🔍 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

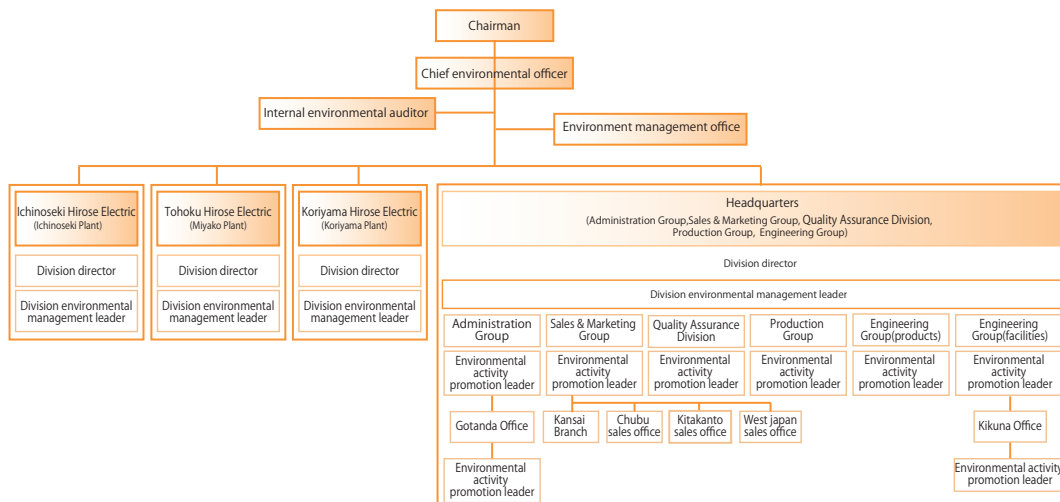
## Environmental Management Structure

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)

## Environmental activities 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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
	Energy is central to nearly every major challenge and opportunity.	<input type="checkbox"/>									<input type="checkbox"/>	
	Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs.	<input type="checkbox"/>		<input type="checkbox"/>						<input type="checkbox"/>		
	Investments in infrastructure are crucial to achieving sustainable development.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Responsible Production and Consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>
	Climate change is a global challenge that affects everyone, everywhere.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
	Careful management of this essential global resource is a key feature of a sustainable future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



## ☑ 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.

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.

As a result, no significant violation of the relevant environmental laws and regulations was found during fiscal year 2021, as had been the case in previous years.



Analysis and confirmation of discharged water



Confirmation of ambient noise

### VOICE

#### Legal Compliance Initiatives, and Chemical Substance Management Initiatives

At the Miyako Plant, each section conducts monthly patrol activities, including legal compliance matters, in line with the operations of their own section. For example, employees at the Miyako Plant conduct ditch water quality inspections, ambient noise measurements, working environment measures, and other inspections and measurements requested by customers and mandated by Japanese laws and regulations and are working to minimize impact on the environment (people included).

Furthermore, customers' demands and expectations for chemical substance management are increasing, and the Hirose Electric Group, whose business model is based on outsourcing, cannot effectively manage chemical substances without the cooperation of our business partners. With this perspective in mind, we visit our suppliers to confirm the actual status of chemical substance management and provide support and guidance as necessary.



Shinichi Kawamura  
Miyako Plant  
Quality Control Section



Measurement of ambient noise





## 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.

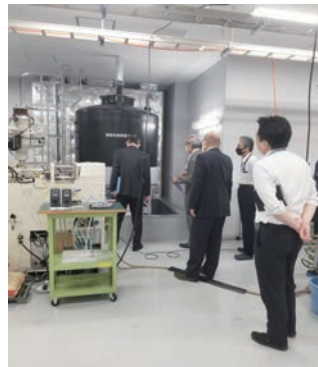
To maintain and renew ISO14001 certification, we undergo periodic external reviews.

In fiscal year 2021, the audit was conducted from August 2 to September 2. 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.

For fiscal year 2021 external review, regular reviews were conducted between December 7 and December 10. 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.

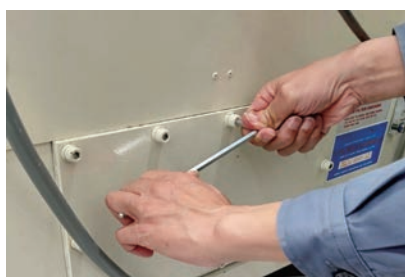
In addition, we provide specialized education for those personnel who are involved in any work that could potentially cause an emergency or a significant environmental impact. Moreover, we raise awareness among employees of the importance of biodiversity by providing e-learning on the subject and explanations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



Education for designers



Environmental Education(Koriyama Plant)



Training to prevent oil leaks during equipment maintenance



Training for responding to kerosene tank leaks



## 📌 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.

Since fiscal year 2020, we have been linking each goal to SDGs and conducting environmental activities with an awareness of SDGs.

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 2030.”

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

Hirose group's objectives	Targets for fiscal year 2021	Achievement in fiscal year 2021	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	○
	Reduce processing man-hours by converting hand-entered orders to EDI	Completed as planned	○
	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 2030 (improvement by 16.55% or more by the end of fiscal year 2030 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.

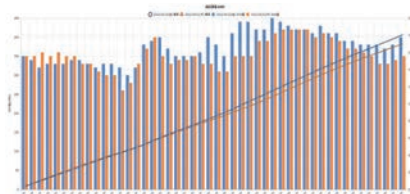
\* 1 Our targets are in conformity with the JEITA (Japan Electronics and Information Technology Industries Association) targets.



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



Solar panel

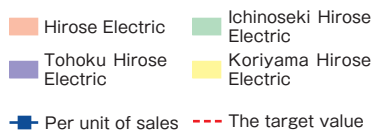
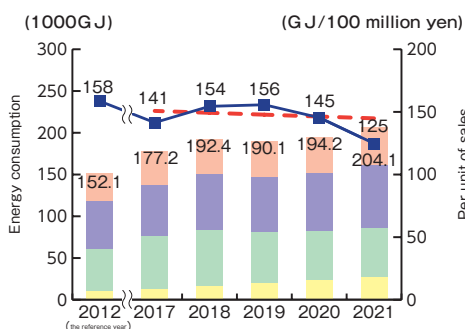


Confirmation of power generation levels (comparison with previous day)

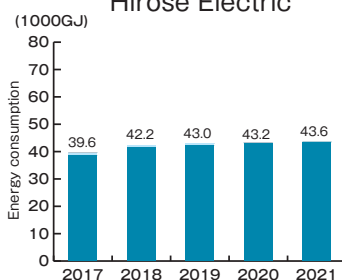
Solar power generating station (Ichinoseki Hirose Electric)

We reduced use by 21.35% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal. In addition, the details of the energy used are as follows.

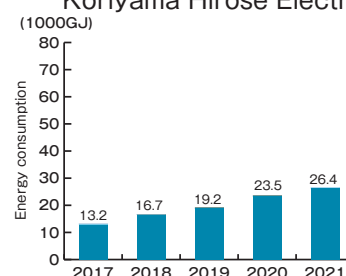
### Energy consumption



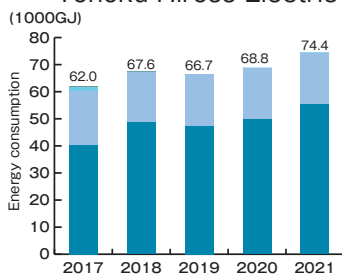
### Hirose Electric



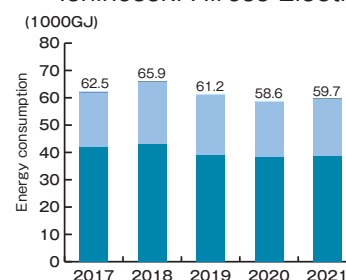
### Koriyama Hirose Electric



### Tohoku Hirose Electric



### Ichinoseki Hirose Electric





## Reduction of Greenhouse Gas Emissions

[Long-term target] Reducing our usage per unit of sales by 1% on average for each year up to 2030 (improvement by 16.55% or more by the end of fiscal year 2030 compared to the reference year 2012)

The Hirose Electric Group manages energy use levels and CO<sub>2</sub> emissions at our overseas bases of operation, and at our domestic and overseas cooperative companies.

Most greenhouse gas emissions from the Hirose Electric Group arise out of our use of electric power, fuel oil A, and gasoline. Most are indirect CO<sub>2</sub> emissions produced through electricity generation using fossil fuels.

By reducing the aforementioned forms of energy consumption, we are promoting CO<sub>2</sub> reduction activities.

As a separate approach to CO<sub>2</sub> reductions, we are promoting CO<sub>2</sub> reductions in logistics (reviews of logistics routes, local procurement, reviews of transportation vehicles) and purchase of green electricity with zero CO<sub>2</sub> emissions (the Ichinoseki Plant will switch to green electricity starting in fiscal year 2022).

We will continue to promote CO<sub>2</sub> reduction activities by considering all options to reduce CO<sub>2</sub> emissions, including carbon offsets.

### 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

### 100% Renewable Energy Initiatives

The Ichinoseki Plant has switched all electricity consumption to “100% renewable electricity” as a carbon-neutrality initiative.

By switching to a contract to receive electricity from renewable energy sources such as hydroelectric and geothermal power generation, the Plant will achieve zero CO<sub>2</sub> emissions associated with electricity use.

Compared to CO<sub>2</sub> emissions from electricity consumption of [3,173 t-CO<sub>2</sub>] in fiscal year 2021, starting in fiscal year 2022, the Plant will achieve 100% renewable energy to realize zero CO<sub>2</sub> emissions.

Although the contract change will result in an increase in costs, energy conservation efforts in fiscal year 2018 and beyond have resulted in cost savings that exceed the cost increase.  
<Energy Saving Measures from Fiscal Year 2018 Onward>

- Installation of solar power generation equipment
- Conversion to LED lighting
- Visualization of electricity
- Air-leak checks, etc.

We will continue to enhance our energy-saving efforts going forward.



Tatsuya Chiba  
Ichinoseki Plant  
General Affairs Section



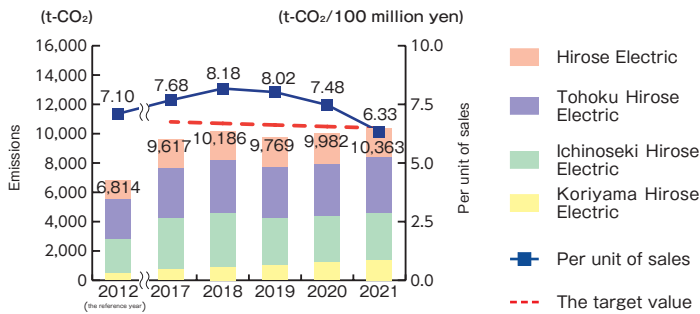
We reduced CO<sub>2</sub> emissions by 10.85% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal.

In addition, the details of CO<sub>2</sub> emissions are as follows.

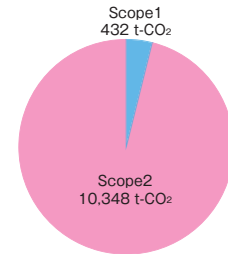
CO <sub>2</sub> emissions per 100 million yen in sales (t-CO <sub>2</sub> /100 million yen)	
Scope1	1.03
Scope2	29.21
Scope3	48.18
Total	78.41

**[Japan]**

CO<sub>2</sub> emissions  
(Japan Hirose Electric Group)

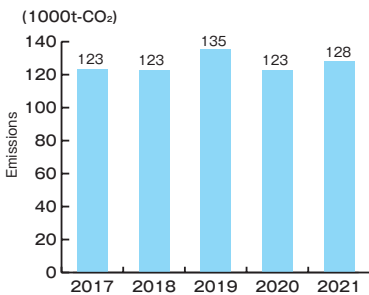


CO<sub>2</sub> emissions in (fiscal year 2021)  
(Japan Hirose Electric Group)

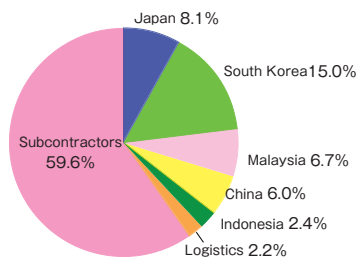


**[Worldwide]**

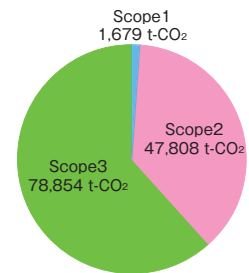
CO<sub>2</sub> emissions  
(includes overseas sites, subcontractors at home and overseas, logistics)\*1



Percentage of CO<sub>2</sub> emissions  
(fiscal year 2021)



CO<sub>2</sub> emissions by the entire supply chain  
(fiscal year 2021)



\* 1 We have calculated the overall amount by sampling primary subcontractors's CO<sub>2</sub> emissions caused by our purchase taking into account the yearly coverage rate (52% - 85%). The scope of CO<sub>2</sub> emissions in logistics : our domestic dedicated truck, export flight, import flight.

SCOPE 1: CO<sub>2</sub> emissions by the Hirose Electric Group  
SCOPE 2: CO<sub>2</sub> emissions by power companies used by the Hirose Electric Group  
SCOPE 3: CO<sub>2</sub> emissions by others (logistics, subcontractors, and power companies used by subcontractors, etc.)

## Reduction of Water Usage

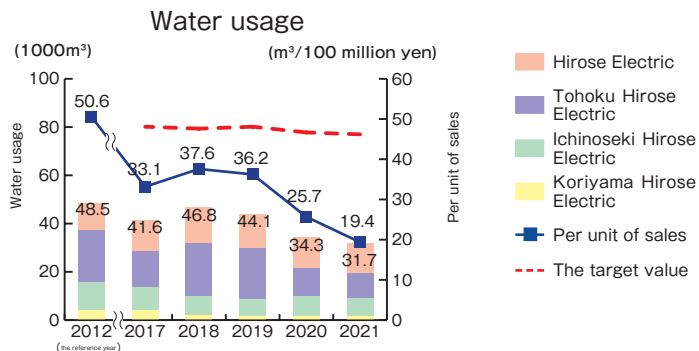
[Long-term target] Reducing our usage per unit of sales by 1% on average for each year up to 2030 (improvement by 16.55% or more by the end of fiscal year 2030 compared to the reference year 2012)

To reduce water consumption, the Hirose Electric Group is working to conserve water used for day-to-day necessities by using less water in toilets and switching to automatic faucets, among other activities.

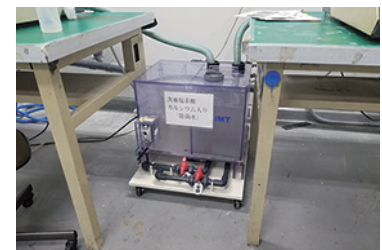
We also work to reduce water consumption used in production; for example, by recycling some of the water used in the plating process and by recycling and reusing water used for cross-sectional polishing to confirm prototypes.

We reduced use by 61.71% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal.

In addition, the details of the water used are as follows.



Poster encouraging conservation of water used in day-to-day activities



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

## Reduction of Paper Usage

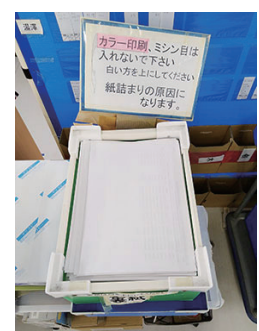
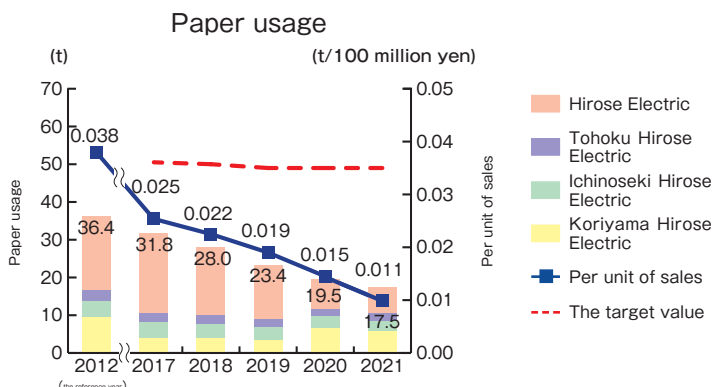
[Long-term target] Reducing our usage per unit of sales by 1% on average for each year up to 2030 (improvement by 16.55% or more by the end of fiscal year 2030 compared to the reference year 2012)

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.

We reduced use by 71.89% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal.

In addition, the details of the paper usage are as follows.



Using the reverse sides of paper



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 2030 (improvement by 16.55% or more by the end of fiscal year 2030 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.



Recycled materials area



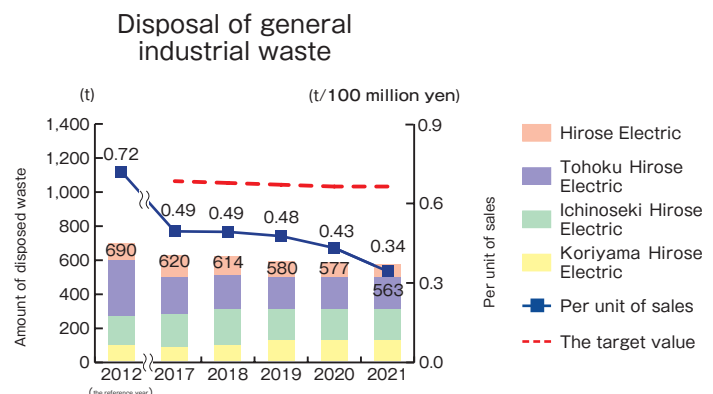
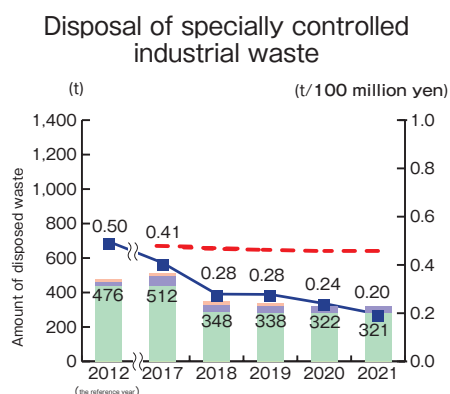
Collection of scrap metal



Checking on sorting for recycling

We reduced disposal of specially controlled industrial waste by 60.53% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal. We reduced disposal of general industrial waste by 52.17% for our fiscal year 2021 goal of 8.65% reduction and thus achieved our goal.

In addition, the details of the disposal are as follows.



## 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

The Hirose Electric Group uses green ICT to collect, analyze, visualize, and share information in real time to improve the efficiency of paperwork and production, and decrease the movement of people and goods, thereby contributing to a reduction in environmental impact.

We are also striving to reduce our environmental impact through power-saving and green ICT (centralization and virtualization technologies).

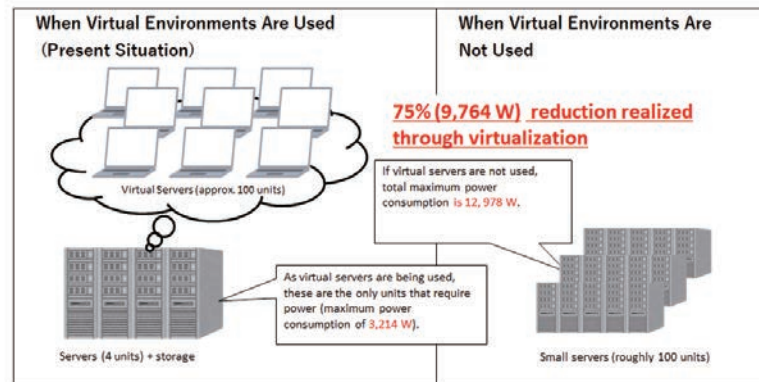
During fiscal year 2021, we engaged in the following initiatives.

### Power consumption reductions through virtualization of servers

The Hirose Electric Group uses many servers for, among other things, business systems and file servers. By virtualizing roughly half of these servers, we have reduced the costs and man-hours associated with procurement and maintenance management. Server virtualization is a mechanism for running multiple operating systems on a single physical server, and having it function as multiple servers.

Server virtualization also reduces environmental impact. According to our calculations, server virtualization has resulted in a 75% (9,764 W) reduction in maximum power consumption. Additionally, fewer physical servers will reduce the amount of heat generated in the server room, which will reduce power consumption for air conditioning, and reduce plastic and metal use amounts, which are materials used in the manufacturing of servers.

We will continue to further virtualize and consolidate our servers.



### Going paperless by digitizing applications

The Hirose Electric Group has introduced a business improvement platform to digitize various operations, reduce man-hours required for work, and increase efficiency.

This system is used to electronically complete applications for product process changes and ID issuance for various systems. This system eliminates the need for paper printing and document delivery to obtain seals of approval.

Going forward, we intend to expand the user base of this system to include parties at overseas offices and will aim to further improve operational efficiency and reduce environmental impact.

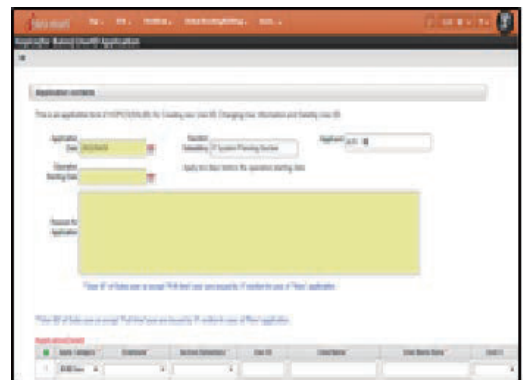


Image of the electronic application form



## 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.

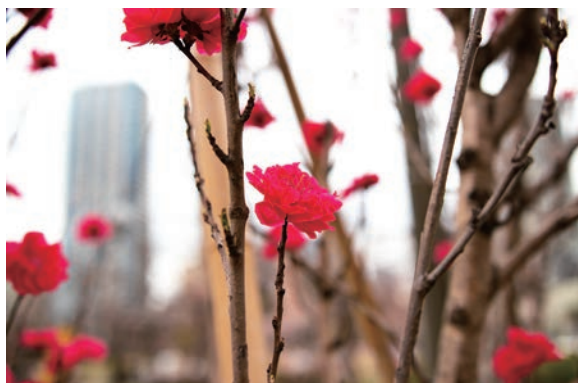
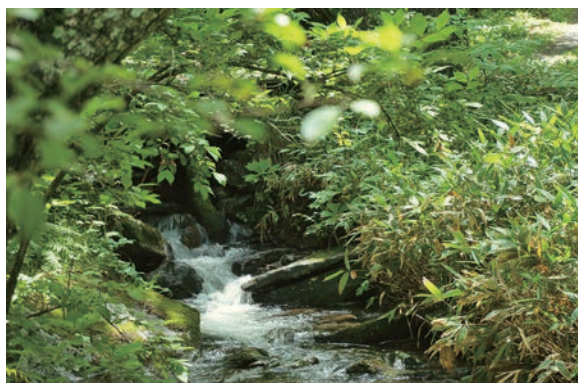
We are also working to conserve biodiversity through our environmental target activities.

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.

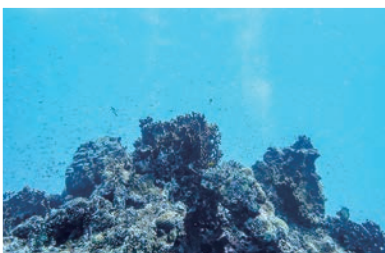
### Raising awareness of biodiversity — Club activities —

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

The Hirose Electric Group typically holds a technology exhibition in Tokyo and Osaka once every three years. The exhibition will feature a wide range of connectors, cutting-edge connection technologies and solutions that meet next-generation needs, as well as high-performance, high-reliability product variations, attracting many visitors, including many from overseas.



Scene of the Hirose Technology Exhibition

### Communication with Suppliers

The Hirose Electric Group holds a regular TOP training workshop (workshop on quality) and a meeting to exchange New Year's greetings with its suppliers in order to forge a closer partnership. In addition, with a view to incentivizing suppliers to implement environmentally friendly practices, we make a list that ranks suppliers based on a range of evidence submitted by the suppliers themselves, and make the list public.



TOP training workshop



Meeting to exchange New Year's greetings

\*In fiscal year 2021, the TOP training workshop and New Year's greeting meeting have been cancelled due to the novel coronavirus pandemic.

### 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

Koriyama City is located in the center of Fukushima Prefecture and is the third largest city in the Tohoku region after Sendai and Iwaki. Koriyama enjoys a longstanding reputation as a lodging town on the Oshu Highway, and today it functions as a key transportation hub where the Tohoku Shinkansen bullet train connects the Tohoku region with the Tokyo metropolitan area, and the Tohoku Expressway and Ban-Etsu Expressway intersect. Koriyama City is also known as the “Vienna of Tohoku,” and is famous for its active music scene, which encompasses choirs, brass bands, rock festivals, and many other musical activities regardless of genre.

The Koriyama Plant, located in the city of Koriyama, has worked to reduce its environmental impact in fiscal year 2021 through the following initiatives.

#### (1) Separation and collection of scrap metal

We have engaged in the separation and collection of scrap metal since fiscal year 2012. By sorting and collecting by metal type and plating process, we are contributing to the reduction of industrial waste through efficient recycling. We also conduct regular patrols to ensure that separations and collections are being performed correctly.

#### (2) Environmentally friendly manufacturing

The Koriyama Plant produces some of the components required for connector assembly. The Plant engages in high-quality, environmentally friendly manufacturing by conducting on-site production, which reduces the Plant’s environmental impact from things like exhaust gases emitted and packaging materials used during transportation, and enables reduction in waste through the prompt provision of feedback even when production problems occur.

We will continue to promote sustainable and environmentally friendly manufacturing.



Yusuke Nagasawa  
Parts Manufacturing  
Section

### **[Koriyama Plant] Introduction of Oil-free Compressors**

We would like to talk about oil-free compressors that have been in use at the Koriyama Plant since fiscal year 2017.

#### (1) Reduction of defects through clean air supply

Since the air supplied does not contain oil, defects caused by oil adhesion can be eliminated and waste due to defects can be reduced.

#### (2) Reduction of waste from operations

Supplying clean air eliminates the need for an oil filter at the supply point and the discharge of consumables. In addition, the compressor drain water does not contain oil, thus eliminating the need to treat contaminated water and reducing environmental impact.



Oil-free compressors

Yusuke Nagasawa  
Parts Manufacturing  
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



Tohoku Hirose Electric

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.



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 is located in an environmentally rich location, adjacent to the Kitakami River, the largest river in the Tohoku region, and Mount Kurikoma, the so-called "queen" of the Ou Mountains, in the distance to the west.

In order to protect this rich natural environment, we practice corporate activities that take into consideration the impact on the local living ecosystem.

In fiscal year 2021, the Ichinoseki Plant focused on conversion to IoT, such as the introduction of RPAs\*, in order to digitize paper documents and reduce the man-hours associated with simple tasks.

By reviewing each of the tasks that workers had been performing as a matter of course, we identified tasks that were no longer necessary and worked to eliminate waste. RPA automation reduces the active time of electronic equipment by reducing the number of simple tasks performed by humans, thereby contributing to power savings and other benefits.

As a carbon neutrality initiative, we had previously derived a portion of our energy from renewable sources by installing solar energy generators in the Plant, but in fiscal year 2021 we began efforts to switch to electricity derived from renewable sources like hydroelectric and geothermal power plants by reviewing where we purchased our energy from, ultimately allowing us to achieve 100% renewable energy use starting in fiscal year 2022.

In addition to the continuation of these activities, we will reduce our impact on the global environment and promote activities to protect biodiversity by ensuring that we maintain manufacturing that does not use environmentally hazardous substances.



Takahiro Ishikawa  
Plating Section

\*RPA (robotics process automation) is a form of software robotics technology that automates clerical tasks primarily performed on PCs

### [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.

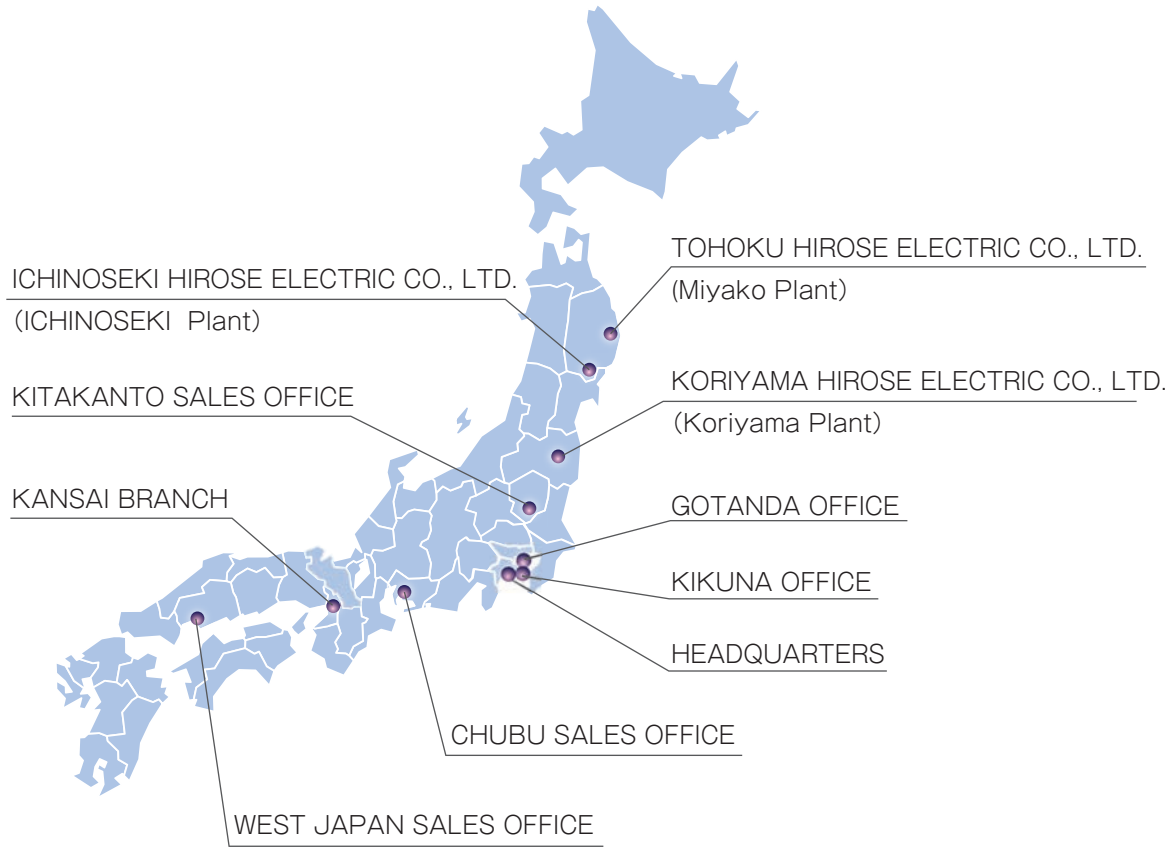


Phthalate Esters Analyzer



Tomohiro Sakai  
Quality Control Section





<Hirose Electric Co., Ltd.>

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Japan

4) KANSAI BRANCH

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2) ICHINOSEKI HIROSE ELECTRIC CO., LTD.

Ichinoseki, Iwate prefecture, Japan

3) KORIYAMA HIROSE ELECTRIC CO., LTD.

Koriyama, Fukushima prefecture, Japan

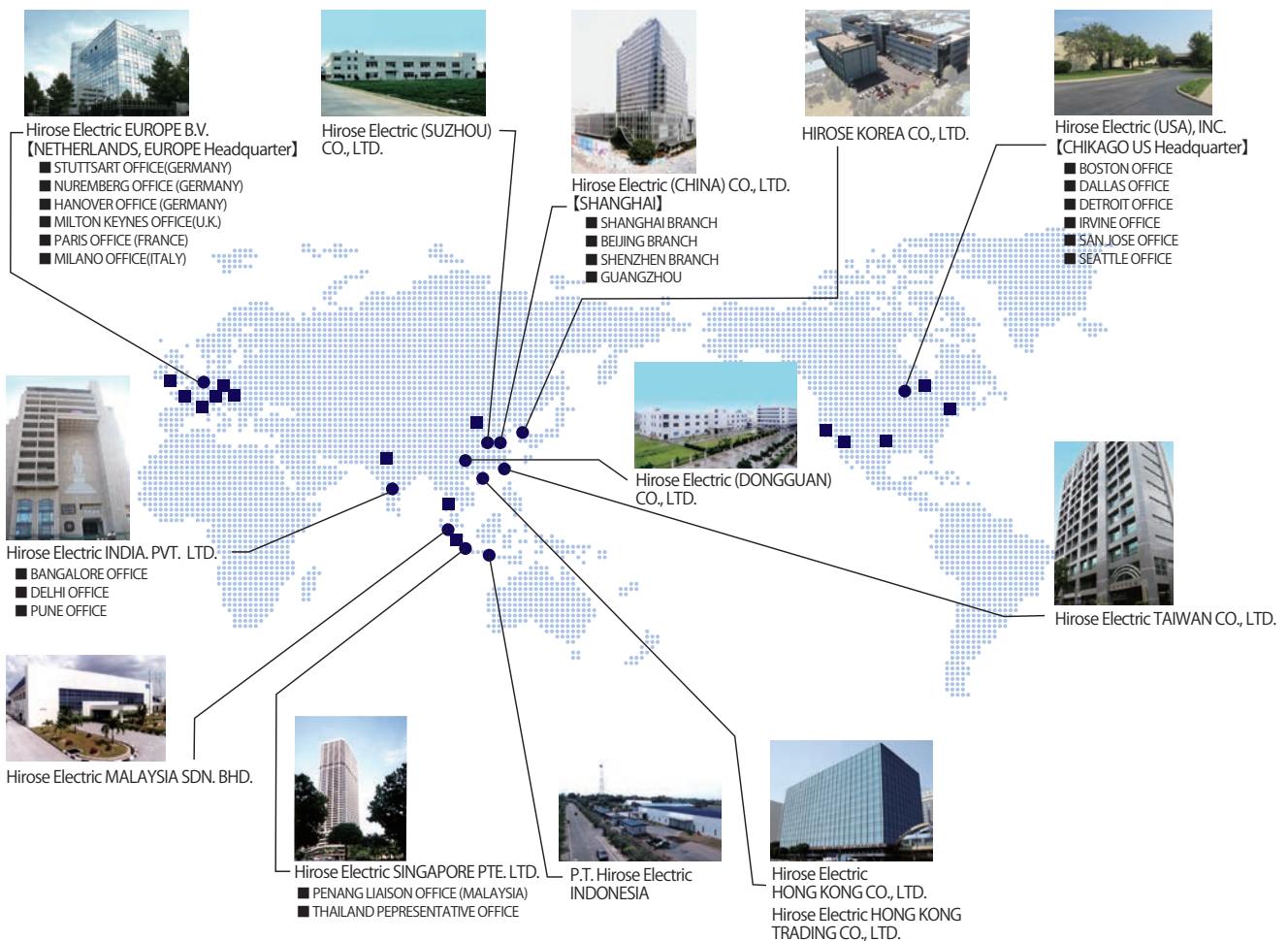


## Activities of Overseas Sites to Reduce Environmental Impacts

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 1980s 1990s	<p>1970s Ceases cadmium plating</p> <p>1980s Stops the use of asbestos and specified bromine fire retardants</p> <p>1990s Eliminating the use of CFCs in manufacturing processes.</p>	
1999~ 2000  2002		<p>Ichinoseki Hirose Electric Co., Ltd., Koriyama Hirose Electric Co., Ltd. and Tohoku Hirose Electric Co., Ltd. acquires ISO14001 certification</p> <p>Hirose Electric (including the above domestic plant) expands the certification area and switches to an integrated ISO14001 certification.</p>
2003 2004  2005  2006  2007  2008 2009  2010  2011  2012  2013 2014 2015 2016 2017 2018 2020	<p>2003 Promotes lead-free products</p> <p>2004 Stops the use of chlorine organic solvents (dichloromethane) Formulates the Hirose Electric Group Code of Conduct</p> <p>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</p> <p>2006 Complies with the RoHS directive (All major products no longer contain RoHS prohibited substances)</p> <p>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</p> <p>2008 Formulates the information security policy</p> <p>2009 Formulates the business continuity plan (BCP)</p> <p>2010 Begins to increase halogen-free products Establishes the CSR Committee</p> <p>2011 Promotes reduction in use of resources and CO<sub>2</sub> emissions Begins preparations to comply with the revised RoHS</p> <p>2012 Begins activities to preserve biodiversity Revises the Hirose Electric Group Code of Conduct</p> <p>2013 Ceases manufacture of products that contain dibutyltin compounds</p> <p>2014 Begins preparations for revision of ISO14001</p> <p>2015 Begins preparation for the expected revision to the RoHS directive (banning of phthalate-containing products)</p> <p>2016 Completes migration to ISO14001:2015</p> <p>2017 Responds to the revision to the RoHS directive (banning of phthalate-containing products and guidance on alternative products)</p> <p>2018 Completes responses to the revision to the RoHS directive (Discontinuation manufacture of products containing phthalates and guidance on alternative products)</p> <p>2020 Setting environmental targets linked to SDGs</p>	<p>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)</p> <p>Joins the Joint Article Management Promotion Consortium (JAMP)</p> <p>Hirose Electric (Suzhou, China) acquires ISO14001 certification</p> <p>Participates in the UN Global Compact Participates in domestic subcommittee, VT62474, of IEC/TC111</p> <p>Withdraws from domestic subcommittee, VT62474, of IEC/TC111</p>

# 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 2022', 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 2021

Looking at the business results for fiscal year 2021, despite the COVID-19 pandemic which started in 2020, the entire Group has achieved further increases in sales and profits in fiscal year 2021 as a result of steady global expansion. This result is partly attributed to the appropriate functioning of CSR measures, including those for the environment.

Of the 15 CSR targets for fiscal year 2021, 13 have been achieved, including two new targets, "Enhance customer satisfaction" and "Promote CSR procurement," which were in progress during the previous fiscal year. These achievements are the results of effective activities with respect to your supply chain from the previous fiscal year.

Regarding environmental initiatives, it is highly commendable that the major achievements were made with respect to the first two items of "reduction of energy consumption: 21.35% (target: 8.65%)" and "reduction of greenhouse gas emissions: 10.85% (target: 8.65%)." With respect to the former initiative, in particular, you managed to achieve results that were triple your target levels, and we believe this is the result of meticulous efforts on your part in all business areas, from your production sites to your office environments. It is also highly commendable that, in this report, the data of CO2 sales intensity, which corresponds to Scope 1, 2, and 3, is disclosed, allowing us to confirm the progress of quantitative analyses of environmental impact throughout the business life cycle.

On the other hand, it is unfortunate that the summary data of "Environmental Impacts due to Business Activities," which you had been publishing until the previous fiscal year, has been deleted, making it impossible to see the overall environmental impact of your business activities. It is strongly recommended that you will include this information once again in your report for the next fiscal year.

## Future activities

From the latter half of fiscal year 2021 onward, as social circumstances become increasingly chaotic due to drastic changes in international affairs, including the conditions of the COVID-19 pandemic, CSR (society, people, and the environment) responses, including risk management, will require a more integrated and prompt approach. COVID-19 responses, in particular, will require a shift from "post-COVID" responses to "with-COVID" responses, and we anticipate that a wide range of responsive measures will be required, including global reforms to production systems, procurement systems, and work styles.

Under these circumstances, the Group philosophy "A Small Company Connecting Wisdom" is the strictly spiritual principle that supports your business. In order to implement and sustain this philosophy, further strengthening the company-wide management system through appropriate information sharing and collaboration among all divisions and departments is expected with regard to CSR measures.

As part of this effort to improve the quality of activities, the last year's Opinion Report requested that CSR response targets be made more concrete (quantified as much as possible), and found it unfortunate that this was not yet reflected in your activities in fiscal year 2021. It was also recommended that the company clearly state the targets for the following fiscal year in order to confirm the effectiveness of the PDCA of the management system with regard to environmental measures. However, it appears that this recommendation has not been reflected in your efforts either. We hope that your company will further raise the level of your activities through the effective operation of a management system.



## ■ Response to the Third-party Opinion ■

We would like to thank Professor Ryosuke Ugo of the Department of Materials and Human Environment Sciences, Shonan Institute of Technology, for once again sharing with us his valuable comments on our environmental activities.

Professor Ugo's opinions were based on the examination of our company's reports for three consecutive years, and an understanding of the changes to, and the results of, our various initiatives, and left us at Hirose Electric with the strong impression that we will need to closely examine his critiques, and work to ensure that we will be able to disclose even better results and achievements from our activities.

Our corporate activities in fiscal year 2021 were, once again, conducted while faced with the many challenges represented by the COVID-19 pandemic. Despite this, however, our corporate activities in the industrial equipment, automotive, and portable consumer equipment markets have grown more active when compared against our activities in fiscal year 2020, and, thanks to increased opportunities for direct communication with our customers, we have been able to connect our efforts to new forms of business. Although we are faced with lingering uncertainties for the future manifested by the ongoing semiconductor shortage, as global efforts to resolve this shortage are beginning to take shape, we expect to see future improvements to these circumstances.

As abnormal weather conditions continue worldwide due to ongoing global warming, we believe that companies will be expected to realize a low-carbon society and to engage in environmental responses. In order to definitively realize such a society, and such responses, it is crucial that we specify (quantify) our own goals, just as Professor Ugo noted.

We will announce our plan to achieve carbon neutrality by 2050 at our technology exhibition "CONNECTION22" to be held this fiscal year, and will continue to implement the PDCA cycle in order to make the matters identified by Professor Ugo a reality.



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