

# Rinnai



## CSR Report

# 2016

Corporate  
Social  
Responsibility  
Report 2016

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## Supplemental Data:

1. Oguchi Factory	7. Rinnai Precision Co., Ltd.
2. Seto Factory	8. RT Engineering Co., Ltd.
3. Asahi Factory	9. Japan Ceramics Co., Ltd.
4. Yanagisawa Manufacturing Co., Ltd.	10. Noto Tech Co., Ltd.
5. Rinnai Technica Co., Ltd.	11. Techno Parts Co., Ltd.
6. RB Controls Co., Ltd.	

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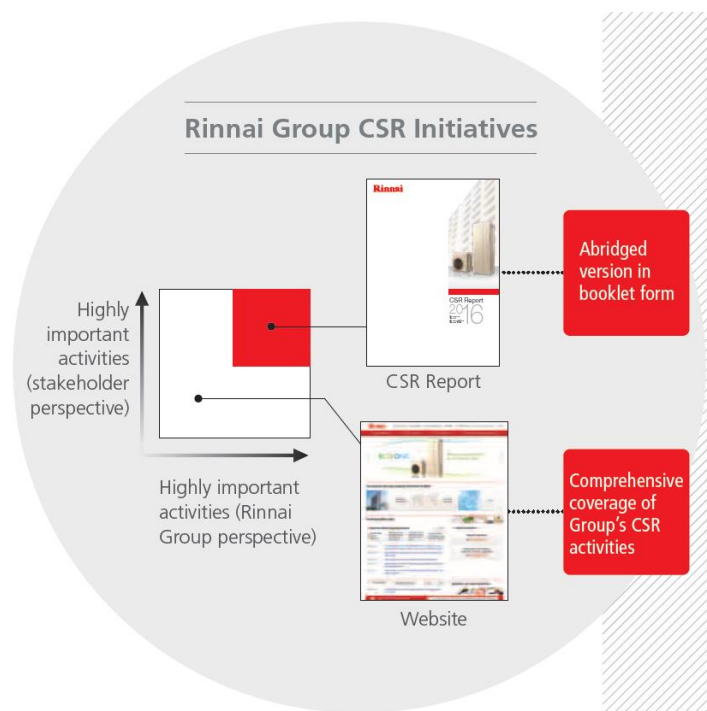
# CSR Report 2016

## Editorial Policy

Rinnai puts out a CSR Report to convey to stakeholders management's approach to CSR, to describe the activities undertaken groupwide, and to encourage a deeper understanding of the Group's operations to as many people as possible.

## Rinnai's Activities

To provide an overview of our CSR activities in an easy-to-understand way, we produce an abridged version of our CSR Report in booklet form. Information not contained in the booklet—such as case studies, specific details, and related data—is posted on the website.



## Scope

Rinnai Group  
(Rinnai Corporation and companies under the Rinnai Group umbrella in Japan and overseas)

## Reporting Period

This report focuses on events that occurred in fiscal 2016—April 1, 2015, to March 31, 2016—but also touches upon measures implemented and recent activities undertaken prior to fiscal 2016 as well as future business direction, targets and plans.

## Referenced Guidelines

Sustainability Reporting Guidelines (G4), the fourth and most recent generation of guidelines by the Global Reporting Initiative (GRI)  
ISO 26000:2010  
Environmental Reporting Guidelines (fiscal 2012), issued by Japan's Ministry of the Environment  
Environmental Accounting Guidelines (fiscal 2005), issued by Japan's Ministry of the Environment

## **Publication Schedule**

September 2016 (Japanese version), previous: October 2015, next: August 2017 (planned)

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# Top Message

## Message from the Chairman

Since its establishment in 1920, Rinnai has been developing, manufacturing, and selling gas and other heat energy appliances based on its objective of “using heat energy to provide society with comfortable lifestyles.”

Thanks to support from customers, we have grown into a comprehensive heat energy appliance manufacturer, and we now have operations in 16 nations and regions around the world, including Japan.

One reason for our growth is our commitment to quality. Based on our corporate philosophy, “Quality is our destiny,” we are stepping up quality-based initiatives in Japan and over-seas. We are working to improve quality across all stages of our operations, from product development and manufacture to distribution customer service, and maintenance.

Another reason is localization. While deploying technologies acquired in Japan, we propose scenarios matched to the needs of local communities, cultures, and consumers in overseas markets. Our local subsidiaries also welcome national and regional people into management positions to demonstrate our stance in emphasizing localization.

Committed to protecting the environment, Rinnai is focusing on prevention of global warming. Seeking to help reduce CO<sub>2</sub> emissions from people’s homes, we are promoting the proliferation of our *ECO ONE* hybrid water heaters with heating systems and our *Eco Jozu* high-efficiency water heaters, both of which feature minimal CO<sub>2</sub> emissions.

Overseas as well, we plan, develop, manufacture, and sell environmentally friendly products tailored to national and regional attributes. As a comprehensive heat energy appliance manufacturer, Rinnai will contribute to the creation of a sustainable society by promoting products that are safe, reliable, comfortable, and environmentally friendly.



Susumu Naito,  
Chairman

## Message from the President

**We will help create a sustainable society as a comprehensive heat energy appliance manufacturer, with the key themes “safety and peace of mind”, “comfort and health”, and “environment”.**

### **We will use energy deregulation as an opportunity to establish a robust brand.**

Seeking to further solidify its brand image as a comprehensive heat energy appliance manufacturer, in April 2015 the Rinnai Group embarked on a medium-term business plan, entitled Evolution and Succession 2017. In the fiscal year ended March 31, 2016, the first year of the plan, the domestic market was somewhat lackluster, but overseas markets were generally healthy. Accordingly, consolidated net sales increased 8.4% year on year, to ¥319.9 billion, and operating income rose 12.4%, to ¥34.5 billion.

As readers may be aware, deregulation of the Japanese electricity market began in April 2016, with the gas market to follow starting in April 2017. Amid intensifying competition in the energy sector, sales promotion activities for gas appliances, previously handled by existing

large-scale town gas providers, will be curtailed, and manufacturers may need to take over those tasks. However, we do not believe this to be a negative factor. Rather, it is an opportunity to highlight the excellence and high quality of our products to a broad spectrum of customers. In addition to product development, therefore, we will focus on activities to establish a positive brand image.

Overseas, we are stepping up initiatives in both advanced and emerging nations. In addition to building a new plant in China, for example, we have set up a new base in Dubai, United Arab Emirates. Our overseas sales ratio was 47.0% in the year under review, and we expect this to grow in the future.

With the help of Gastar Co., Ltd., which became a subsidiary of Rinnai Corporation in April 2016, we will reinforce our manufacturing and sales operations in Japan’s northeast Kanto Region. Rinnai and Gastar have engaged jointly in product manufacturing for many years, and Gastar fully understands Rinnai’s commitment to quality. Going forward, the two companies will together make and sell products, guided by Rinnai’s corporate philosophy, “Quality is our destiny.”



Hiroyasu Naito, President

### **Promoting the spread of our ECO ONE hybrid water heater with heating system to help reduce CO<sub>2</sub> emissions from homes**

In the domestic market, we will work to increase sales of our *ECO ONE* hybrid water heater with heating system, which combines a high-efficiency gas water with heating system and an electric heat pump. Sales of *ECO ONE* are increasing steadily. For example, a condominium building in which *ECO ONE* systems are installed in all residential units has been officially certified as a low-carbon building (see page 75). Moreover, a growing number of residential construction companies are employing *ECO ONE* as a powerful tool for promoting the net zero energy house (ZEH) concept. At Rinnai, we will promote the spread of *ECO ONE*, as well as our high-efficiency Eco Jozu water heaters, to help reduce CO<sub>2</sub> emissions from people’s homes.

To help customers use our gas appliances with peace of mind, we are stepping up efforts to establish a safety inspection system for long-term-use products, and focusing on raising the number of products targeted for such inspections. We are also addressing “heat shock” and other problems that cause accidents in bathrooms, where around 10,000 people in Japan lose their lives annually. Specifically, we have conducted PR explaining the effectiveness of bathroom heaters in eliminating the temperature difference between the bathroom/dressing room and adjacent rooms (see page 24). We will continue this initiative going forward. We will also continue inspections, repairs, and parts replacements of dishwasher/dryers found to be defective in 2012, as well as some fan-forced bathwater heaters made and sold by Gastar, identified as defective in 2014.

Overseas, meanwhile, we develop and propose products matched to the attributes and environmental policies of each nation and region. Through meticulous responses, we hope to make contributions that protect our environment.

### **Management emphasis on transparency**

#### **Establishing workplaces where women can excel**

We are focusing on strengthening management and establishing healthy workplace environments. On the corporate governance side, in June 2016 we added one outside director, for a total of two. While deploying external perspectives in management, we will practice corporate management that is more transparent than ever before.

For a long time, the Rinnai Group has respected the human rights of its employees both in Japan and overseas, and has endeavored to create worker-friendly environments. We have also implemented various schemes, such as a system supporting the advancement of women. In addition, we have promoted activities to maintain and improve the physical and mental health of employees. These efforts have been highly acclaimed. For example, Rinnai Corporation has been included in the “Health and Productivity Index 2016” presented by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange (TSE). We will continue working to increase corporate value as a company in which employees work with enthusiasm.

With respect to local communities, each of our business operations engages in various independent initiatives while also supporting local culture and contributing to local society through ongoing efforts, including support for the Nakagawa Canal Restoration and Culture/Art Activity Assistance Project (ARToC10).

Going forward, the Rinnai Group will continue working to create prosperous, comfortable lifestyles and help protect the environment through its core business. Committed to meeting the expectations of society, we will also strive to create a sustainable society.

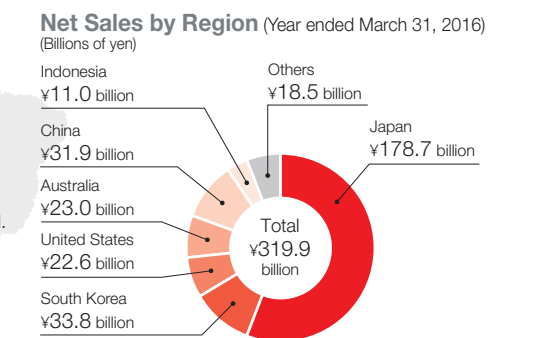
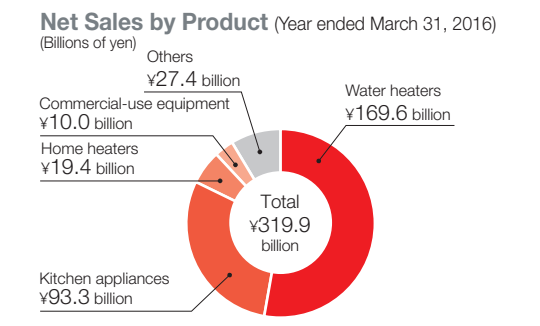
Rinnai Group Network

● Manufacturing and sales companies ● Sales companies ● Other Business



**Corporate Data** (As of March 31, 2016)

Incorporated: September 1, 1920  
 Established: September 2, 1950  
 Paid-in capital: ¥6,459,746,974  
 Head office: 2-26, Fukuzumi-cho, Nakagawa-ku, Nagoya 454-0802, Japan  
 Number of employees: 9,940 (consolidated), 3,579 (non-consolidated)  
 Number of Group companies: 44 (domestic 15, overseas 29)



**JAPAN**

- Rinnai Corporation
- **Branches:** Tohoku, Kanto, Chubu, Kansai, Kyushu
- **Domestic sales offices:** Hokkaido, Kita-Tohoku, Sendai, Niigata, Tokyo, Kita-Kanto, Higashi-Kanto, Minami-Kanto, Tokai, Shizuoka, Hokuriku, Nagano, Osaka, Keji, Hyogo, Chugoku, Shikoku, Fukuoka
- **Factories and related centers:** Technology Development Center, Production and Technology, Development Center, Integrated Logistics Center, Rinnai Parts Center, Oguchi Factory, Seto Factory, Asahi Factory, Akatsuki Factory
- Rinnai Canada Holdings Ltd.
- Yanagisawa Manufacturing Co., Ltd.
- Rinnai Technica Co., Ltd.
- RB Controls Co., Ltd.
- Rinnai Precision Co., Ltd.
- RT Engineering Co., Ltd.
- Japan Ceramics Co., Ltd.
- Noto Tech Co., Ltd.
- Techno Parts Co., Ltd.
- Rinnai Net Co., Ltd.
- RG Co., Ltd.
- Rinnai Enterprises

**SOUTH KOREA**

- Rinnai Korea Corporation
- RB Korea Ltd.
- RS Korea Ltd.
- Mikuni RK Corporation
- Rinnai Plus Corp.

**CHINA**

- Shanghai Rinnai Co., Ltd.
- Shanghai RB Controls Co., Ltd.
- Guangzhou Rinnai Gas and Electric Appliance Co., Ltd.
- Hainan Rinnai Minsheng Kitchen Appliances Sales Co., Ltd.
- Shanghai Rinnai Thermo Energy Engineering Co., Ltd.

**AUSTRALIA**

- Rinnai Australia Pty., Ltd.
- Brivis Climate Systems Pty Ltd.
- Jordans NSW Corporation
- Gas Appliance Services Corporation

**Water Heaters and Heating Systems**

Water heaters, water heater with bath-filling system, water heater with heating system, hybrid water heater with heating system, bathroom heater/dryer, mist sauna, floor heating systems, and others



ECO ONE hybrid water heater with heating systems

Bath Hot bathroom heater/dryer

**Kitchen Appliances**

Tabletop cookers, built-in hobs (stove-tops), ovens, dishwashers, range hoods, rice cookers, and others



DELICIA gas built-in hob (stove-tops)

Built-in dishwasher

**Home Heaters**

Fan heaters, fanned flue heaters, infrared heaters, and others



Gas fan heater (5.8kW type)

**Commercial-Use Equipment, Others**

Industrial ceramics machines, commercial-use ranges, rice cookers, clothes dryers, infrared burners, components, and others



Commercial-use gas clothes dryer

# Corporate Mission and Vision

## Fundamental Concepts

### Quality is our destiny

## Company Motto



和

Harmony:  
Develop personal character of the highest caliber

氣

Spirit:  
Base your efforts on a consistent philosophy

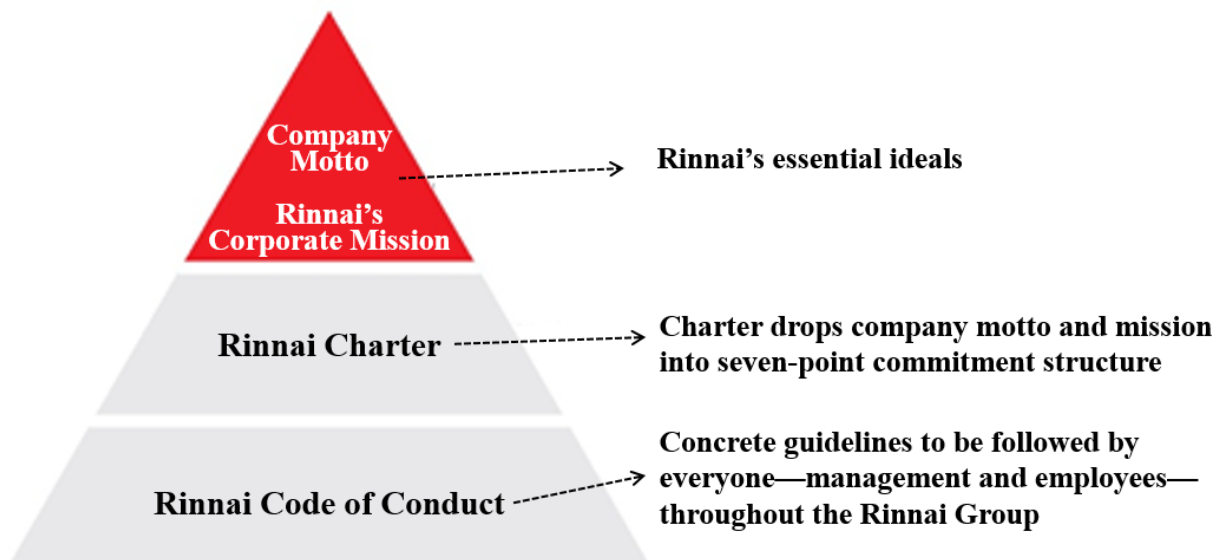
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Sincerity:  
Know the fundamentals and consider issues with precision and clarity

## Rinnai's Corporate Mission

Rinnai utilizes heating to provide society with a comfortable way of life.

## Schematic Diagram of Company Ideals



## Three Key Themes

Since its establishment, Rinnai has grown and developed through an unshakable focus on three themes. Part and parcel of the Rinnai Spirit, these themes are and always will be integral to our success.

<p><b>Heat and Lifestyles</b></p>	<p>Rinnai’s corporate mission hinges on the use of “heating” to provide society with “comfortable lifestyles.” Our strength is in sophisticated heating technologies, and we will utilize this capability to facilitate the creation of pleasant living environments.</p>
<p><b>Quality</b></p>	<p>Rinnai’s catchphrase—“Quality is our destiny”—epitomizes a corporate obsession with quality. So it is only natural that we would keep production and other <i>monozukuri</i> (manufacturing) efforts in-house to sustain high-level standards. This enables us to deliver safety and peace of mind to our customers.</p>
<p><b>Contributing to Local Communities</b></p>	<p>At Rinnai, we firmly believe that contributing to a better lifestyle culture in local communities is vital to our role as a good corporate citizen. Basic strategies for expanding our presence abroad require that sales and services are executed with local conditions in mind and that manufacturing takes place in the markets where the products will be sold.</p>



## Medium-Term Business Plan, “Evolution and Succession”

(April 2015–March 2018)

“Evolution and Succession” is our medium-term business plan that began in April 2015. Under the plan, each of the Rinnai Group companies will ensure the “succession” of our commitment to product quality and *monozukuri* (craftsmanship)—based on the spirit of our founder and fundamental belief that “Quality is our destiny”—while emphasizing our “evolution” toward a new era. In the process, we will target major progress as a comprehensive heat energy appliance brand as we approach Rinnai’s 100th anniversary in 2020.

### Major Steps Forward as a Comprehensive Heat Energy Appliance Brand in the Lead-up to 2020 (Rinnai’s 100th Anniversary)

Aims		Challenge toward Evolution	Succession of Rinnai Spirit		
<b>Product vision</b>	Comprehensive heating appliance manufacturer that delivers environmentally responsible products	1. Respond to changing environment 2. Pursue core priorities aimed at evolution 3. Reform business model	“Quality is our destiny”		
<b>Regional vision</b>	Global company that improves the lifestyles of people all over the world		“Using heat to provide society with comfortable lifestyles”		
<b>Business vision</b>	Company with a unique business model that attracts people and business partners				
		Year ended March 31	Fiscal 2016 (actual)	Fiscal 2017 (plan)	Fiscal 2018 (plan)
		Net sales	¥319.9 billion	¥337.0 billion	¥350.0 billion
		Operating income	¥34.5 billion	¥37.0 billion	¥39.0 billion
		Operating margin	10.8%	11.0%	11.1%

#### Domestic business model



Strengthen *ECO ONE* production system (New wing at Akatsuki Plant)

*ECO ONE* hybrid water heater with heating system

Leverage our *ECO ONE* hybrid water heater with heating system to rebuild our business model for system-based products

#### Gas appliance peripherals business model (Japan)

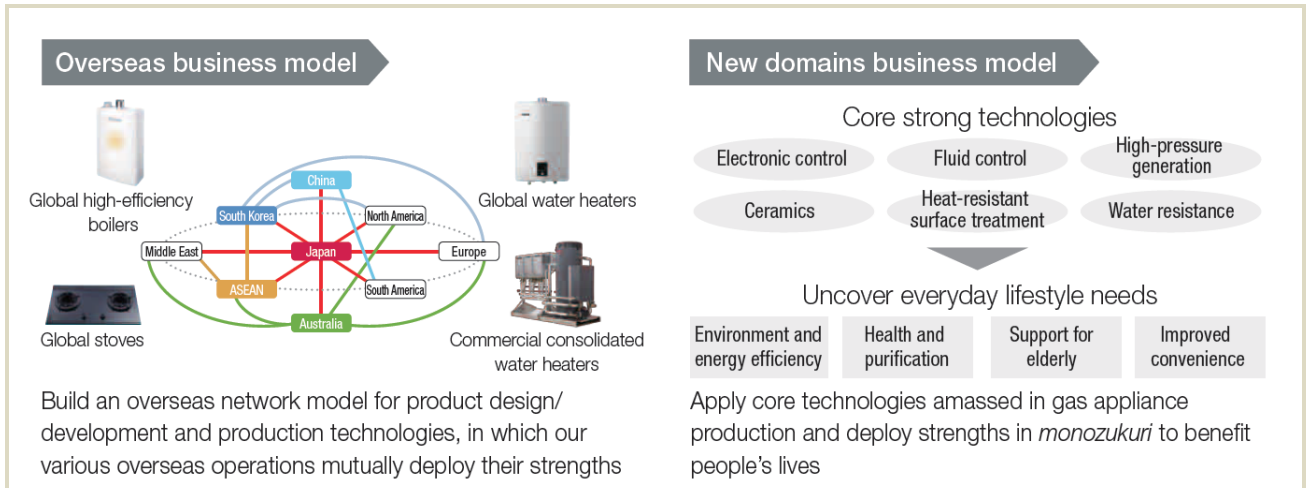


Range hood, Floor heating, Bathroom heater/dryer

Kitchen, Living room, Bathroom

Dishwasher/dryer, Hot-water-based room heater, Bathroom remote control

Expand sales of peripherals (apart from gas appliances) to build a reputation as a comprehensive heat-energy appliance manufacturer









# Rinnai Group CSR

## Approach to CSR

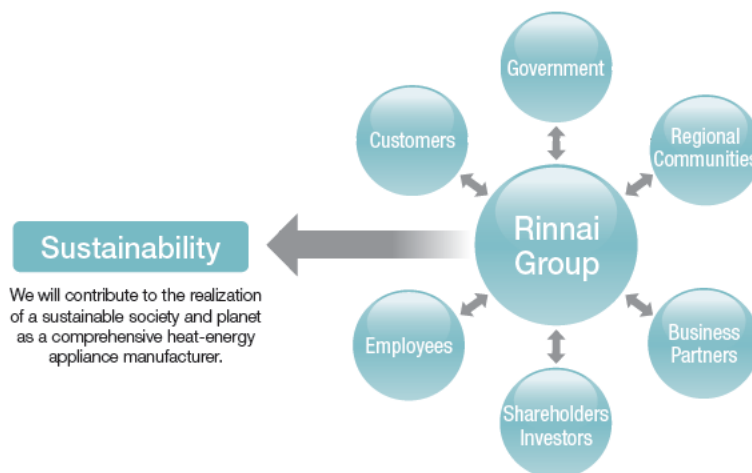
The Rinnai Group’s corporate mission is to use heat to provide society with comfortable lifestyles. With this in mind, we deliver heat-energy appliances with excellent features in terms of safety and peace of mind, comfort, and the environment. We seek to improve lifestyle cultures of people around the world and offer a better outlook for the planet.

The Group pursues CSR activities through core operations based on the three commitments it has emphasized since its foundation—“heat and lifestyles,” “quality,” and “contributing to local communities”—complemented by “the environment,” for a total of four key themes.

<p><b>Environment</b></p> 	<p>Hot water and heating appliances account for much of the energy used in the average home. By developing, manufacturing, and selling appliances with exceptional energy efficiency, Rinnai helps reduce emissions of greenhouse gases from homes.</p>
<p><b>Heat and Lifestyles</b></p> 	<p>We deploy our advanced heat-related technologies and know-how to develop products that people can use in a safe, comfortable, and efficient manner. In this way, we help people lead abundant lifestyles.</p>
<p><b>Quality</b></p> 	<p>We adhere to the basic tenet that “Quality is our destiny.” To this end, we pursue a “zero defects” objective when designing, making, and selling our products, to ensure they remain fault-free until they are no longer used by the customer.</p>
<p><b>Contributing to Local Communities</b></p> 	<p>In principle, we focus on local production and local sales in advancing our overseas business. Our aim is to help improve the lives of local people around the world by delivering products and services that meet the climates, lifestyle cultures, and customs of various nations and regions.</p>

## Returning Added Value to All Stakeholders

Together with stakeholders, we will strive for continuous growth by returning the economic value obtained through Rinnai’s business activities to stakeholders, thus fostering sustained mutual advancement.



## Environmental Policy

Rinnai's environmental initiatives are underpinned by the "Basic Philosophy on the Environment," "Environmental Slogan," and "Basic Environmental Activities" ("7 E Strategic Initiatives" set out below). Our efforts extend beyond the development of environmentally responsible products that reduce energy consumption when in use and initiatives aimed at reducing greenhouse gases.

We recognize how our diverse activities—including the development, procurement, production, sale, and disposal of products—are inextricably linked to the global environment. Accordingly, all Group employees engage in environmental initiatives across all business domains.

### Basic Philosophy on the Environment

Rinnai's basic philosophy is to embrace environmental protection on a global scale and contribute to society through the pursuit of excellent, people- and planet-friendly technology, and product development, production, sales and service infused with a sense of humanity.

### Environmental Slogan

"Our actions are imbued by the wisdom of many and undertaken with due consideration to the sustainability of a people- and earth-friendly environment."

### Basic Environmental Policy

- 1. Provide environmentally conscious products that have minimal impact on the environment.**  
Through the diligent pursuit of product development stressing reduced consumption of resources and energy and higher recycling rates as well as eco-minded materials procurement (E-Procurement), we will provide environmentally conscious products (E-Products) that have minimal impact on the environment and contribute to a healthier planet.
- 2. Create green factories and offices with the environment in mind.**  
We will emphasize activities that save energy, reduce waste and limit or eliminate hazardous chemical substances, and we will work toward the establishment of environmentally sustainable factories and offices—E-Factory and E-Office—that fit in with the natural surroundings.
- 3. Consider how sales and service activities might affect the environment.**  
We will reduce the impact that sales (E-Marketing), services (E-Service) and other business activities in general might have on the environment.
- 4. Formulate an environmental management system and continuously improve it.**  
We will formulate an environmental management system and continuously enhance its scope through the establishment and management of appropriate environmental objectives and targets.
- 5. Ensure activities are in compliance with regulations and restrictions, including laws, and self-established standards.**  
Obviously, we will abide by laws, ordinances, agreements and other regulations and restrictions, but we will also set and adhere to self-established standards corresponding to social demands. We will always strive to enhance our response to meet revised regulations and evolving standards.
- 6. Raise environmental awareness among employees and work with communities to contribute to society.**  
We will raise environmental awareness among all employees through environment-themed training, and we will promote activities undertaken jointly with regional communities and other groups to achieve public good. This perspective is called e-mind.
- 7. Disclose information to employees and the communities in which we work.**  
We will disclose environment-related information, such as policies and strategies, to keep employees and society at large in the loop about our perspectives and actions on environmental issues.

### Basic Environmental Activity

#### “7E” Strategic Initiatives: Green Activities Involving All Employees in All Business Areas



### International Assessment of CSR Performance


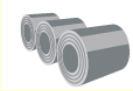

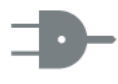





Rinnai has been selected for inclusion in the FTSE4Good Global Index, a worldwide socially responsible investment (SRI) index, for 11 consecutive years since 2004.

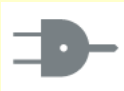


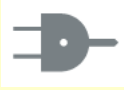








## The Rinnai Group's Value Chains and Their Impacts on Society

### Social Impacts and Activities of the Rinnai Group

We recognize all of the impact our actions have on society and conduct our operations in an environmentally-friendly manner in every area in which we do business to fulfill our social responsibility from procurement to disposal of our products.

Input Main resources inputted (raw materials and energy)	Rinnai Group Value Chain	Output Main emissions	Main Concerns	Main environmental activities of the Rinnai Group
 <p><b>Raw materials</b> Iron, copper, stainless steel, brass, aluminum, plastics, rubber, etc.</p>	 <p><b>Procurement</b></p>	 <p><b>Air emissions</b> 770,000t</p>	<p>Resource depletion, global warming, atmospheric pollution, water pollution, soil pollution, hazardous chemicals and conflict minerals</p>	<ul style="list-style-type: none"> <li>· Implementation of various environmental efforts with suppliers and group companies to make our processes better for everything from parts procurement to the final product</li> <li>· Collection and management of information on control of hazardous chemicals in collaboration with suppliers and group companies</li> </ul>
 <p><b>Energy</b> · Electricity: 95,250,000kWh · Gas: 9,080,000m<sup>3</sup> · LP gas: 3,075 t · Other materials: 2,491 kl (Conversion to crude oil)</p>  <p><b>Water</b> • Ground water: 90,000m<sup>3</sup> • Public water: 620,000m<sup>3</sup></p>	 <p><b>Development and Manufacturing</b></p>	 <p><b>Air emissions</b> CO<sub>2</sub>: 70,000t NO<sub>x</sub>: 71t</p>  <p><b>Wastewater</b> 630,000m<sup>3</sup></p>  <p><b>Solid waste</b> (Includes valuable substances) 30,000t</p>	<p>Resource depletion, global warming, atmospheric pollution, water pollution, soil pollution, hazardous chemicals and noise</p>	<ul style="list-style-type: none"> <li>· Development/design of products using combustion and control technologies to reduce environmental impact on the output side</li> <li>· Improvement of productivity and reduction of energy production by streamlining manufacturing</li> <li>· Reduction of waste emissions and maintenance of zero emissions (zero waste disposal by landfill)</li> </ul>

 <p><b>Energy</b></p>	 <p><b>Sales and Logistics</b></p>	 <p><b>Air emissions</b> CO2: 10,000t</p>	<p>Resource depletion, global warming, atmospheric pollution and noise</p>	<ul style="list-style-type: none"> <li>· Improvement of fuel efficiency by shortening transportation distances (e.g., by changing routes and consolidating distribution centers)</li> <li>· Improvement of fuel efficiency by encouraging eco-driving</li> <li>· Adoption of packing that is easier to unload and move</li> <li>· Pursuit of selling and expanding products that have a lower environmental impact</li> </ul>
 <p><b>Energy</b></p>  <p><b>Water</b></p>	 <p><b>Product Usage</b></p>	 <p><b>Air emissions</b> 9,170,000t</p>	<p>Resource depletion and global warming</p>	<ul style="list-style-type: none"> <li>· Proposal of sustainable, comfort-able, green lifestyles through use of energy-saving products</li> </ul>
<p>[Scope] Rinnai and consolidated subsidiaries [Development / Manufacturing] Rinnai Corporation [Procurement / Sales / Logistics / Product Usage / Disposal] [Subject Period] Fiscal 2016 (April 2015 - March 2016)</p>	  <p><b>Disposal</b></p>	 <p><b>Air emissions</b> 9,324t</p>	<p>Resource depletion, global warming, water pollution and soil pollution</p>	<ul style="list-style-type: none"> <li>· Application of design for the environment, e.g., to make products easy to disassemble in accordance with product assessment standards</li> </ul>

The value chain is the chain of business activities and processes undertaken by a company to generate and deliver value (products and services) to the customer.

## Stakeholder Engagement

The Rinnai Group places great importance on communication with a variety of stakeholders and applies the valuable feedback and requests we receive in our business activities.

### Two-Way Communication Initiatives

Throughout the Rinnai Group, we place great importance on communication with customers, employees, shareholders, investors, business partners, local communities and the general public.

We take on board comments and requests from our customers through channels such as exhibitions and our online shopping site, and use them to help us improve our products and services. We exchange information with our business partners on subjects such as management policies and products, and also work together to improve management through activities such as our Level-Up Workshop and Shipping Subcommittee.

We will continue to engage in communication with all of our shareholders on a daily basis, so that we can evolve our business activities and improve levels of satisfaction even further in the future.



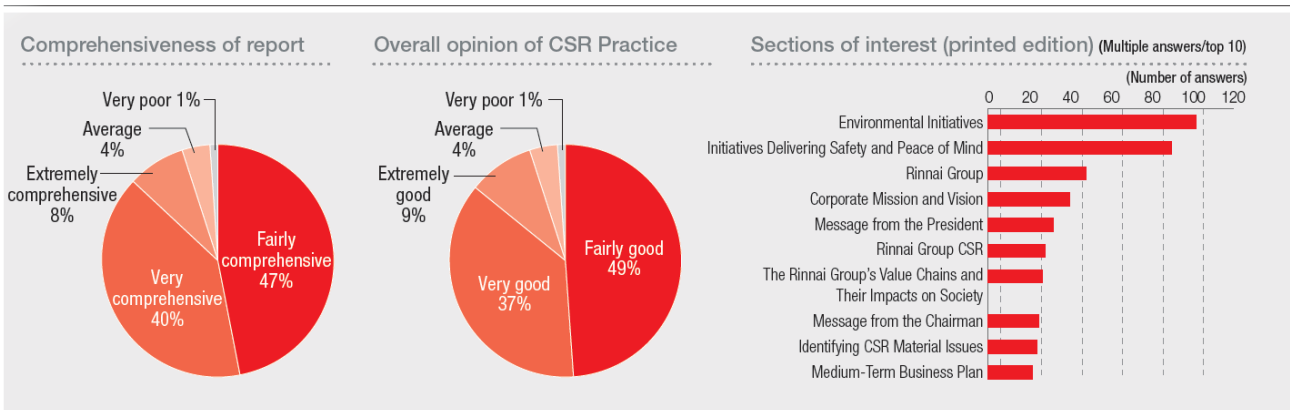
Main Stakeholders	Means of Communication	Opinions and Issues Raised and Our Responses
Customers	<ul style="list-style-type: none"> <li>•Customer Center</li> <li>•Official online shopping site “R.STYLE”</li> <li>•Exhibitions and other events</li> <li>•After-sales services (inspection and repairs)</li> </ul>	<ul style="list-style-type: none"> <li>•We conscientiously answer a range of inquiries from customers concerning products and parts, and post frequently asked questions (FAQ) on our website.</li> <li>•Customers who have had repairs done are surveyed to gauge their satisfaction with elements of service such as “ease of getting through by phone” and - “politeness of operators.” Details of responses are then fed back to operators so that they can remedy unsatisfactory areas.</li> <li>•Respondents to a questionnaire survey of registered users indicated that they would prefer user registration to be handled by stores. In response, in July 2012 we revised our user registration procedure and made improvements by, e.g., providing better explanations and making it clearer to customers that they can request stores to do the registration paperwork for them.</li> <li>• As some people are unaware of Maintenance and Inspection System of Long-Life Products, we inform customers of this system when we have contact with them (e.g., when making repairs).</li> </ul>

<p><b>Employees</b></p>	<ul style="list-style-type: none"> <li>• Intranet and in-house newsletter</li> <li>• Training and related events</li> <li>• Individual discussions</li> <li>• Corporate ethics advisory service</li> <li>• Workplace meetings</li> </ul>	<ul style="list-style-type: none"> <li>• We have established a number of programs to create a more pleasant working environment, including our Come-Back program, reduced working hours, and telecommuting arrangements, and we will continue to pursue improvements to the physical and psychological working environment.</li> <li>• Responding to requests from employees to be given feedback on their personnel evaluation results, we have introduced arrangements for one-to-one meetings with superiors and encourage headquarters to provide such feedback.</li> <li>• We heard from a number of employees that wanted to use the shortened work hour system up until July when their child entered elementary school, and it has been revised to include up until July 31st of the school year.</li> <li>• Child nursing leave has been revised to 10 days instead of 5 days per year.</li> <li>• We are continuously committed to providing parental support and promoting women's employment, and are enhancing our programs beyond statutory requirements.</li> </ul>
<p><b>Shareholders, Investors</b></p>	<ul style="list-style-type: none"> <li>• General shareholders' meetings</li> <li>• Results briefings</li> <li>• Investor relations meetings</li> <li>• Factory tours</li> <li>• Questionnaires</li> </ul>	<ul style="list-style-type: none"> <li>• We carefully explain our “Evolution and Succession 2017” medium-term business plan at results briefings and individual IR meetings, and endeavor to improve understanding of the Group’s management policy and strategy.</li> <li>• We regularly organize facility and factory tours for institutional investors to give them a better understanding of our strengths and competitive advantages, and to outline our approach to manufacturing and technical capabilities.</li> <li>• We hold results briefings and individual IR meetings to answer inquiries and explain our underlying thinking on dividend policy.</li> </ul>
<p><b>Business Partners</b></p>	<ul style="list-style-type: none"> <li>• New Year meetings / Policy presentations for suppliers</li> <li>• Supplier liaison group</li> <li>• Online communication tool, “R-LINE”*</li> <li>• Level-Up Workshop</li> </ul>	<ul style="list-style-type: none"> <li>• We receive inquiries from suppliers on our most recent production levels and provide production data for individual products and details of future production plans via regular Supplier Liaison Group meetings.</li> <li>• Responding to requests from suppliers for advice on, e.g., improving quality and productivity, we organize Level-Up Workshops and Management Improvement Workshops for major suppliers to provide them with guidance on making improvements in the workplace and help suppliers to make management improvements.</li> </ul>
<p><b>Community, Society (including government)</b></p>	<ul style="list-style-type: none"> <li>• Participation in local/ community development activities</li> <li>• Support for cultural activities and the arts</li> <li>• Employee volunteer activities</li> <li>• Support for extracurricular school activities (factory tours, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• We are asked by people living near our plants and offices to assist with events and festivals aimed at enlivening their communities, and we actively assist and take part in such events as a member of these communities.</li> <li>• We assist in cultural and artistic events in the Nakagawa Canal area and other regions, and provide ongoing support for exchanges and creative activities at the grassroots level.</li> <li>• In response to requests for assistance with community learning and school education, we organize events such as seminars on the history of manufacturing at Rinnai and factory tours for schoolchildren.</li> </ul>

\*R-LINE is our online channels for sharing information and communicating with suppliers.



**CSR Report 2015 Questionnaire Results (n=424)**



**Selected Questionnaire Feedback**

**Q. What do you expect from the Rinnai Group in terms of energy?**

- I would like to see the Rinnai Group actively working to support family infrastructures, especially in developing countries, in order to improve energy efficiency in the future.
- I would like to see the Rinnai Group focus on not only the efficient use of energy, but also environmental preservation. It would also be great to see some inexpensive energy devices developed that can be used in developing countries.
- I am not sure what should be the main energy we use in our daily lives. It feels like there is a strong emphasis on consumers, but I wanted to know a little bit more examples that comprehensively use heat energy.

**Q. General opinions and impressions**

- In the volunteer and community-based activities section, it introduces some volunteer efforts at overseas companies, but I am interested in what you are doing in Japan. It would be great if you did the same work in Japan as well.
- The digest version is much more compact overall and is easy to understand. However, I thought it was a bit long and some of the sentences could have been omitted. For the values regarding the mid-term business plan, it would have been easier to understand if you listed the business results for three terms to compare them with the past results.
- The content felt very sincere. It uses many graphs and pictures, and I thought the content was very easy to understand. However, I thought it would have been more memorable if more original content was included.



# Identifying CSR Material Issues

## Process of Identifying CSR Material Issues

We actively take on board the opinions and expectations of various different stakeholders and incorporate them into our CSR activities, in the interests of the continued development of both the Rinnai Group and all of its stakeholders. As well as enhancing our corporate value, we believe that ongoing activities such as these help our stakeholders to grow and contribute to the creation of a more sustainable society.

We make every effort to identify social challenges relating to the Rinnai Group, through day-to-day communication activities with stakeholders coupled with study and analysis of applicable guidelines and SRI indices. We also identify CSR material issues in relation to our management strategies, revolving primarily around corporate planning divisions.

### Identification Process

#### ▶ Step 1

##### Outline existing engagement

- Outline communication activities with stakeholders
- Ascertain opinions and matters of interest to individual stakeholders

#### ▶ Step 2

##### Review CSR Report (previous year version)

- Conduct stakeholder questionnaire with the aim of reviewing our CSR report
- Ascertain matters of interest to stakeholders based on questionnaire results and opinions expressed

#### ▶ Step 3

##### Analyze international standards and guidelines

- Analyze CSR-related international standards and sustainability reporting guidelines (ISO 26000, GRI G4 Guidelines, etc.)

#### ▶ Step 4

##### Analyze SRI indices and questionnaires

- Analyze trends such as changing perspectives on SRI and matters of public interest (Dow Jones Sustainability Indices, FTSE4Good Index Series, Toyo Keizai Corporate Social Responsibility Survey, etc.)

#### ▶ Step 5

##### Study other companies

- Study CSR management practices, key stakeholders and material issues identified by other companies
- Analyze methods of reporting CSR activities

#### ▶ Step 6

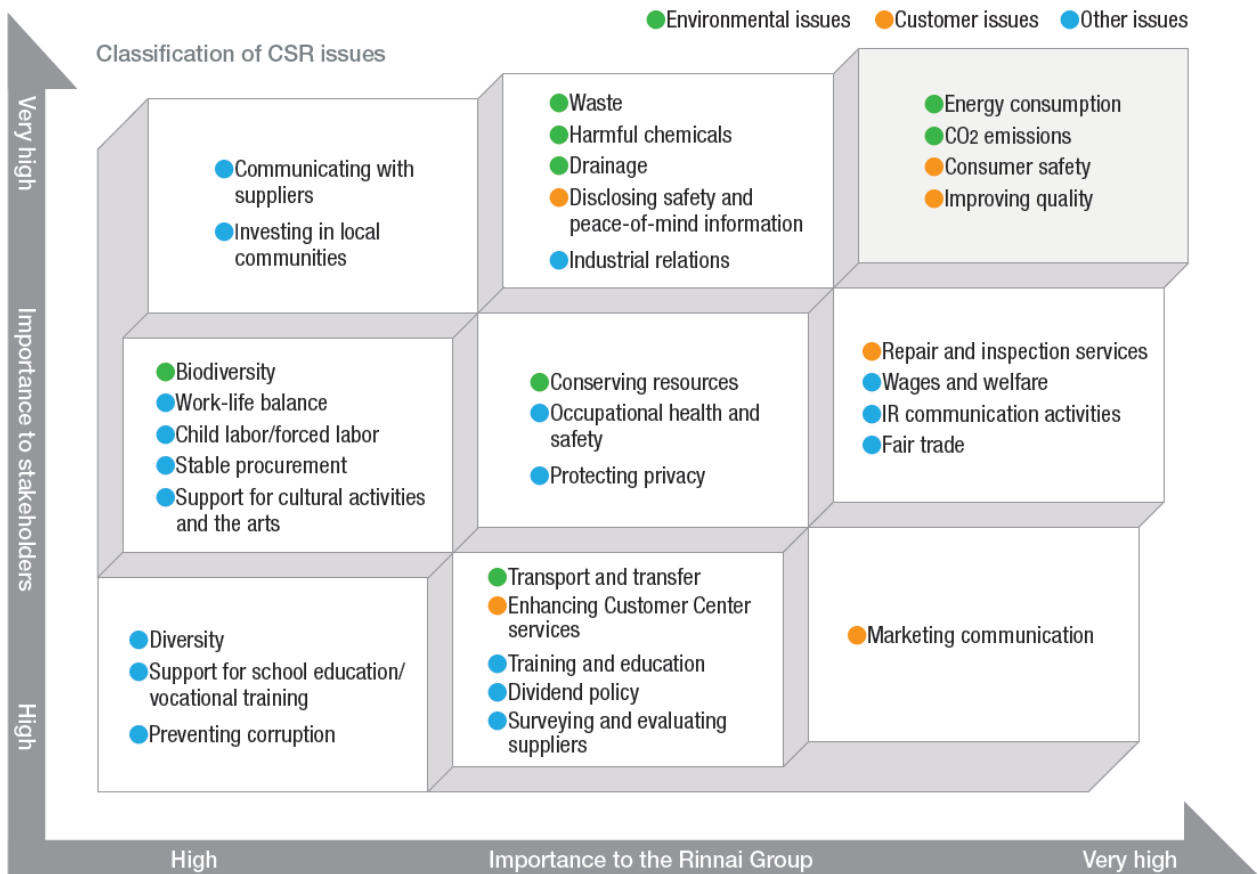
##### Determine social challenges and identify material issues

- Determine social challenges relating to the Rinnai Group, and analyze their level of importance to stakeholders and Rinnai
- Examine consistency with Rinnai management strategy and identify CSR material issues

## Determining and Identifying CSR Material Issues

We have determined social challenges relating to the Rinnai Group, analyzed their level of importance to stakeholders and the Group, and identified CSR material issues.

As well as being matters of interest to stakeholders, these are high-impact issues that are also positioned as top priorities within the Rinnai Group’s management strategy.



\* We have identified issues that are thought to be particularly important at the current time.

\* We intend to review identified issues as necessary in line with changes in society.

## Focus of Initiatives

### Environmental Initiatives

#### CSR Material Issues

- Energy consumption
- CO<sub>2</sub> emissions

Roughly half of all energy consumed by Japanese households is used for hot water and heating. Reducing energy consumption and CO<sub>2</sub> emissions in the hot water and heating sector is therefore a top priority.

#### Target Area and Stakeholders

Target area: Global (Main focus of initiatives: Japan)

Target stakeholders: All

#### Details of Initiatives

We intend to develop and encourage households to use water heaters and heating units with an emphasis on energy saving and environmental performance, in an effort to reduce energy consumption and reduce household CO<sub>2</sub> emissions.

#### Target Indicators

Amount it contributes to reducing CO<sub>2</sub> emissions by using the product

### Initiatives Delivering Safety and Peace of Mind

#### CSR Material Issues

- Consumer safety
- Improving quality

Reducing kitchen fires and fatal bathroom accidents is naturally an important priority alongside eliminating accidents resulting from product defects.

#### Target Area and Stakeholders

Target area: Japan

Target stakeholders: Customers

#### Details of Initiatives

We are working towards achieving “zero defects” by eliminating defects at every stage of the product lifecycle—from development, production, and sale through to obsolescence—and pursue a range of activities to publicize information and raise awareness of preventing accidents in the home.

#### Target Indicators

Improvements in the service person questionnaire evaluation results and number of certified service persons

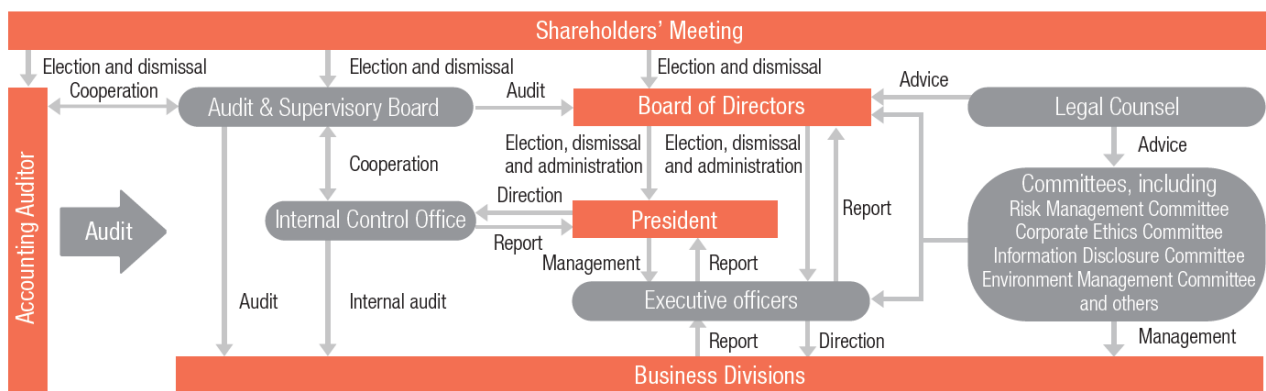
Management System

# Corporate Governance

## Basic Policy

From the perspective of a sharper competitive edge for the Group and sustained improvement in corporate value, Rinnai has made efforts to augment practices and enrich the scope of corporate governance top management priorities. We aim to reinforce the functions of corporate structures, such as the Board of Directors and the Audit & Supervisory Board, and seek a higher level of management transparency, which will be achieved through quick and accurate disclosure of pertinent information to various stakeholder groups and through access to a wide range of information.

Corporate Governance Structure



## Board of Directors

The Board of Directors has decision-making authority for important management issues affecting Rinnai and oversees the execution of duties by directors. The Board has eight members (including two outside directors) and as a rule meets once a month. Moreover, to clarify the management responsibilities of each business year and gain trust from shareholders, Rinnai regulates the term of director to be one year.

## Executive Structure

We have introduced an executive officer system in order to create a flexible management structure capable of responding swiftly to changes in the business environment. Some directors, from the president down, serve concurrently as executive officers, and their role is to convey the details of decisions made by the Board of Directors to the managers of the divisions responsible so that they can be implemented. Quarterly company-wide management meetings and individual management meetings are also held to confirm how business is progressing and to share information on the challenges faced.

## Structure for Monitoring Management Performance

Audit & Supervisory Board has four Board Members, two of whom are outside members. Audit & Supervisory Board Members attend important meetings, including those of the Board of Directors. They also monitor internal control status—that is, progress on the establishment of internal controls and implementation of associated practices—with a focus on the results achieved by directors and executive bodies, and they check on the status of operations and asset management at the head office and principal branches. In addition, Deloitte Touche Tohmatsu LLC undertakes accounting audits and verifies the soundness of accounting-oriented internal controls from a third-party perspective.

## Reason for Choice of Current Corporate Governance Structure

The Company appoints two outside members to both the Board of Directors and the Audit and Supervisory Board. We consider neutral and objective monitoring of management by outside parties to be an important element of good corporate governance, and believe that outside directors and auditors fulfill this role and ensure that management monitoring by outside parties functions properly.

## Development and Strengthening of Internal Controls

Internal controls are developed in accordance with our “Basic Policy on Development of Internal Control System,” which was adopted by the Board of Directors to ensure that business is executed appropriately and efficiently. The state of implementation is confirmed by means including risk management and internal audits, and the content of the basic policy is revised regularly every year.

To respond to the internal control reporting requirements under the Financial Instruments and Exchange Act, the Internal Control Office (an independent division) reviews the Company’s basic policy of internal controls, and assesses the effectiveness of development and functioning of controls to ensure the reliability of financial reports.

## Director and Auditor Compensation

The maximum amounts of compensation paid to directors and auditors and other related matters are determined by resolutions of general meetings of shareholders. Our internal regulations provide for basic matters concerning directors’ compensation, including method of determination, revisions, and reductions, and the amounts paid are determined in accordance with these provisions by resolution of the Board of Directors in the case of directors’ compensation, and through deliberations by the auditors in the case of auditors’ compensation. At Rinnai, directors are paid a fixed amount commensurate with their assigned duties. (We did have a retirement benefit system for directors, but this was terminated at the general meeting of shareholders held on June 27, 2008.)

Any directors or auditors who receive total consolidated compensation of ¥100 million or more are listed individually in the financial statements. Note that the details of compensation paid to directors of the company in fiscal 2016, ended March 31, 2016, are for compensation paid to the seven internal directors, and compensation in that year came to ¥383 million. (This figure does not include salaries paid to directors who serve concurrently as employees.)

## Information Disclosure

For timely and appropriate disclosure of important information on the Group, we facilitated the internal regulations and established “Disclosure Policy”, which is listed on our website, as the guidelines for information disclosure.

# Risk Management

## Risk Management Policy

As social structures become more complex, the risks faced by companies are becoming more diverse. As the Rinnai Group continues to expand its business globally within this environment, we are committed to risk management in order to ensure stable business activities that sustain the trust of customers and society as a whole.

## Risk Management Promotion System

A “Risk Management Committee” made up mainly of executive officers and divisional heads and chaired by the president meets regularly to identify key risks with the potential to impact on our survival, credibility, business activities, and assets. It also determines the divisions with primary responsibility for each risk, develops mechanisms to prevent them from materializing, rapidly resolves crises, minimizes any damage that may occur as a result, and prevents recurrences. The committee works with all divisions and group companies to head off risks and enhance risk response capabilities.

## Identified Risks (Examples)

- Risk of non-compliance or management in violation of applicable legislation, etc.
- Risk of destruction or damage to factories, buildings or production facilities due to a disaster or accident
- Risk of suspension or delays with raw material procurement activities
- Risks relating to the environment
- Risk of bodily injury
- Risks relating to information leaks
- Risk of damage to mission-critical systems
- Risk relating to social media
- Risks relating to infection from new strains of influenza, norovirus, etc.

## Promotion of Businesses Continuity Plan

When companies have no sufficient measures for natural disasters such as earthquakes and storms and the prevalence of infectious diseases, the business operations may be suspended for a long time, result in a significant damage and give a serious impact on stakeholders. As a company which produces thermal energy appliance to support people's lifestyles, we believe it is our responsibility to maintain the stable supply of our products even under such circumstances.

We have positioned business continuity management as our of top priorities, in the event of any risks to the production or supply of important products required by our customers, and are constantly working to formulate and review business continuity plans (BCP), particularly for our domestic production divisions. Based on our experiences from the Great East Japan Earthquake on March 11, 2011, and the Kumamoto earthquakes of April 14, 2016, we are exploring alternative raw material suppliers and procurement sources, and continue to use multiple procurement sources on a daily basis, so that we are prepared for any large-scale earthquakes in the future, including the Nankai Trough.

## Stable Procurement

See page 94 “Measures for Risk Management and Stable Procurement”.

## Information Securities Measures

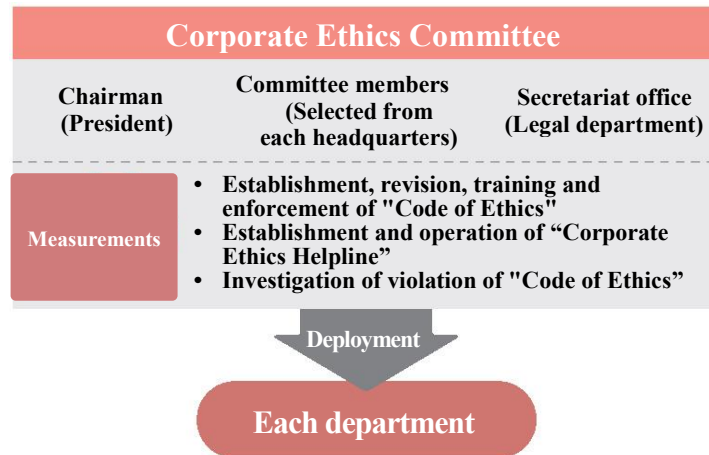
While society becomes more demanding toward company's security reinforcement issues, our Group as a whole promotes the adequate management of security systems by strengthening the awareness for proper information handling through the establishment of the rules for confidential information management and the personal information management. User authentication technology was adopted company-wide to manage accesses to IT system and an entry/withdrawal management system with ID cards has been introduced to various business locations including Technology Development Center one by one.

In addition, to avoid information leakage, we have been enforcing a strict management of the external use of personal computers, encryption of data stored in media to be used outside of the office, unauthorized access by outsiders and virus and spam countermeasures.

# Compliance

## Compliance Promotion System

To remain a sound corporate group which wins the trust of society, the Corporate Ethics Committee was established in April 2004 headed by our President as its chairman. To promote compliance as part of our corporate culture, individual employees strive to live up to their social responsibilities and create a workplace that encourages people to actively engage in their work.



## Rinnai Group "Code of Ethics"

The Rinnai "Code of Ethics" is a small booklet which combines Rinnai's Corporate Philosophy and Code of Conduct, which embodies the detailed behavioral standards that all executives and employees are required to obey. The Compliance Committee member allocated to each workplace provides all employees in the workplace with "Code of Ethics" training each year for its enforcement.

The English-version "Code of Ethics" was issued and distributed to the 18 overseas Group companies, and local language versions were distributed to Group companies in China and South Korea.



"Code of Ethics" booklets of various countries



"Code of Ethics" training sessions at P.T. Rinnai Indonesia (left) and Rinnai Brasil Heating Technology Ltd. (right)



## Compliance Promotion Activities

### Compliance Traini

Within the company, the President himself takes the initiative by sending messages on corporate ethics to employees to improve their awareness of compliance issues.

Moreover, regarding specific laws that individual departments have close relationship with, the Legal Department takes the lead by providing legal education every year. In fiscal 2016, a total of 577 Group employees undertook training to improve their knowledge of the law. We also provide ethical education for new recruits and for employees in specific job classes every year, with a total of 213 employees attending sessions in fiscal 2016.

We also provide compliance-related information to employees at group companies in Japan via other channels, including the Group’s intranet, which we use to publish information on topics such as legal revisions and articles explaining law that applies to our operations.



Legal education

#### Number of compliance training participants in fiscal 2016

Course	Participants
Legal training	577
Ethical training	213

## Confirmation and Modification of Compliance Activities

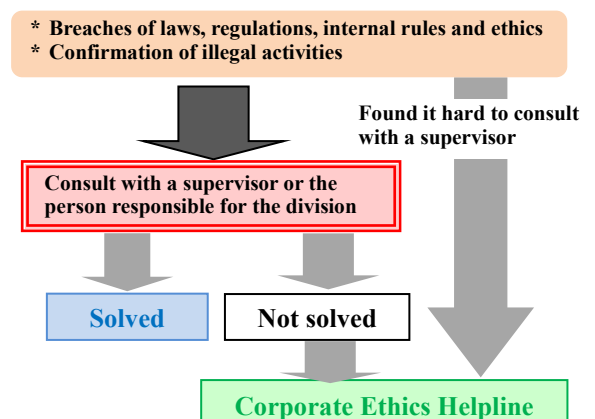
Every year, we conduct employee questionnaires to ascertain how deeply ingrained elements of our Corporate Philosophy have become. In fiscal 2016, these showed that 99.7% of respondents were familiar with the corporate motto and 99.6% understood our corporate mission. We will continue to actively promote compliance activities to maintain these high levels.

## Facilitation of Internal Reporting System

If, in the course of business activities, an employee at a domestic company under the Group umbrella suspects possible breach of laws or the internal rules or unfair practices, and it is difficult to approach a superior or the person responsible for the division with such suspicions, the employee may report the perceived infraction to the Corporate Ethics Helpline.

In this system, we stipulated that the person who reported the incident will not receive any unfair treatment by the fact that he/she consulted the matter and we also pay a full attention to the protection of privacy of the person who made the report.

In fiscal 2016, the helpline received eight reports and requests for advice. Appropriate measures have been taken, including investigation and confirmation of the facts in these cases of alleged misconduct.





## Reward and Disciplinary Committee

To maintain fair working environment, we apply strict measures to an employee who breached the internal rules, Code of Ethics or committed unfair practices based on the working rules under the guidance of the Reward and Disciplinary Committee.

## Protecting Personal Information

Rinnai applies internal rules based on the Act on the Protection of Personal Information. In addition, our Privacy Policy was instituted for the handling of personal information and posted on our website. Utilizing these, we strive to ensure appropriate storage, handling and protection of customer data.

Accordingly, we established the position of chief privacy officer and privacy officer at the head office and require the appointment of privacy officers at all workplaces, including the offices of Group companies in Japan, to educate employees who handle personal information, and to establish physical and technical systems to insure the safe management of personal information in each workplace. The privacy officers also conduct an internal audit once a year to verify the quality of personal information management in each workplace.

In fiscal 2016, a problem arose with our system for managing customer information and some customer registration information was lost while this was being dealt with. We deeply regret any inconvenience caused to customers as a result.

## Compliance Violations

There were no serious compliance violations in fiscal 2016.

## Major Award Winning History

Rinnai received following awards from April 2015 to August 2016.

Rinnai Corporation		
2015	June	Aichi Invention Award 2015 from Aichi Invention Association
	September	Good Design Award 2015
2016	January	Selected as a 2016 Health & Productivity Company by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange
	August	Appropriate Packaging Award of Japan Packaging Contest 2016

Rinnai Technica Co., Ltd.		
2015	October	Certified as a Kakegawa Health Promotion Practice Office by Kakegawa city, Shizuoka prefecture

Rinnai America Corporation		
2015	August	Partners of Choice Awards sponsored by David Weekley Homes

Rinnai Korea Corporation		
2016	March	Brand Survey by KMAC: Korea's Most Admired Companies No.1 at the residential boiler section
	June	Korean Standard-service Quality Index (KS-SQI) by Korean Standards Association: No.1 at the service (Boiler) section

P.T. Rinnai Indonesia		
2015	September	Platinum Award in the tabletop cooker category of the 2015 Indonesia Best Brand Awards sponsored by SWA
	November	Indonesian Customer Satisfaction Award 2015 in the Gas Stove category

Rinnai Holdings (Pacific) Pte Ltd.		
2016	May	Regional Award of BEI ASIA AWARDS

Rinnai Australia Pty., Ltd.		
2015	October	The Best Supplier Award in the water heaters/heating units category sponsored by Plumbing Merchants Association

Brivis Climate Systems Pty Ltd		
2015	June	Good Design Award in the Hardware and Building category

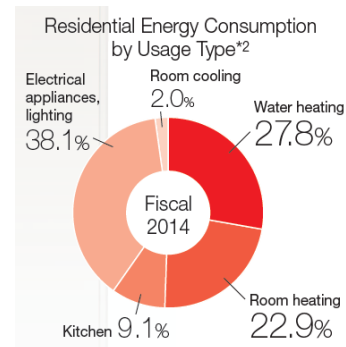
Rinnai Brazil Heating Technology Ltd.		
2015	July	Superior Enterprise Award as a 40th anniversary company by the State of Sao Paulo

Environmental Initiatives

# Innovative Home Scenarios Offered by Third-generation *ECO ONE*



Water and room heating account for more than half of the energy consumed by Japanese households, so reducing the amount of CO<sub>2</sub> emitted from homes is an urgent priority. In 2020, all newly constructed houses must comply with energy-efficiency standards set by the Ministry of Economy, Trade and Industry. As moves to reduce residential CO<sub>2</sub> emissions gather pace, more and more people are turning to our *ECO ONE* hybrid water heater with heating system, which reduces primary energy consumption\*<sup>1</sup> by around 40% and thus contributes to declines in CO<sub>2</sub> emissions. In this section, we introduce environmental initiatives pursued by Rinnai, as well as the image of an innovative home created through such initiatives.



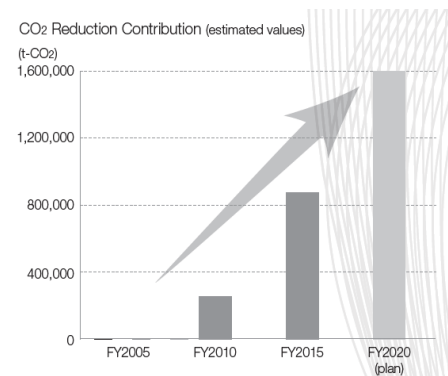
\*1 Primary energy consumption: Refers to the amount of energy (hot water) obtained from coal, petroleum, natural gas, and the like when in their natural state. This allows different appliances, including those powered by electricity, gas, and petroleum, to be compared under similar conditions. Recently adopted as an evaluation standard for energy-efficient homes.

\*2 Source: “Energy White Paper 2016” (Agency for Natural Resources and Energy)

## Towards 2020: Challenge to Double Our Contribution to CO<sub>2</sub> Emissions Reduction

Heat-energy appliances, such as *ECO ONE*, emit the greatest volume of CO<sub>2</sub> during actual consumer usage in all stages of their life cycles, from procurement of materials to final disposal. Suppression of global warming, therefore, requires two important goals—improvement of energy efficiency (including combustion efficiency of the appliances themselves) and proliferation of environmentally friendly products.

According to the CO<sub>2</sub> reduction contribution\*<sup>3</sup> index, and using 2005 as the base (zero) year, we have been making steady progress, with a 250,000-ton contribution in 2010 and an 880,000-ton contribution in 2015. Our medium-term environmental target for 2020 is 1.6 million tons, and to this end we will pursue initiatives aimed at saving energy in homes and cutting CO<sub>2</sub> emissions.



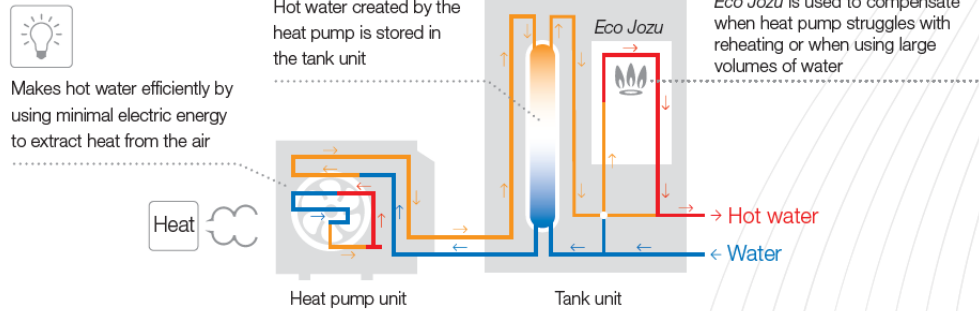
\*3 CO<sub>2</sub> reduction contribution: The amount of CO<sub>2</sub> emissions reduced thanks to improved performance of Rinnai-brand water heaters, compared with fiscal 2005.

Calculation criteria Target products: Water heaters sold by Rinnai Corporation in Japan  
Usage period: 10 years

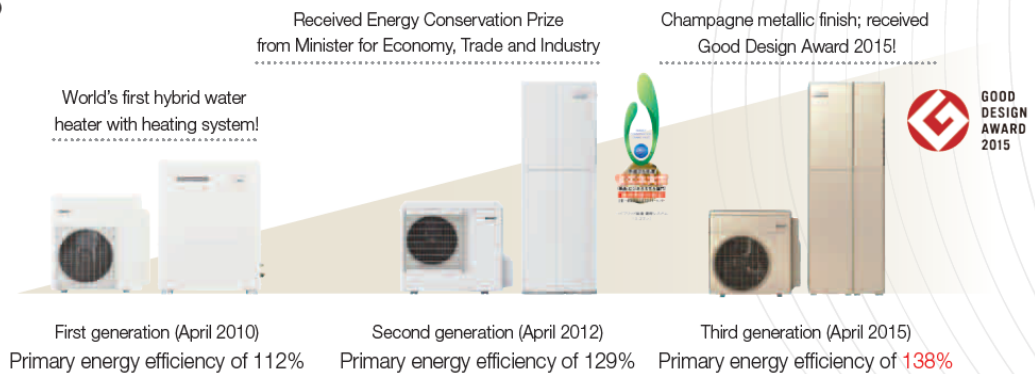
## ECO ONE: World's First System to Combine a High-efficiency Gas Water Heater with Heating System and a Heat Pump

ECO ONE, which provides water and floor heating energy, is a hybrid water heater with heating system combined an electric heat pump with a high-efficiency gas water heater. Born in 2010, ECO ONE uses both gas and electricity as power sources and has continued leading the industry in terms of environmental performance and design. For the example, the second-generation ECO ONE received an Energy Conservation Prize, and the third generation earned a Good Design Award.

What is ECO ONE?



Evolution from first to third generation



## Many Convenient Functions for Multiple Scenarios

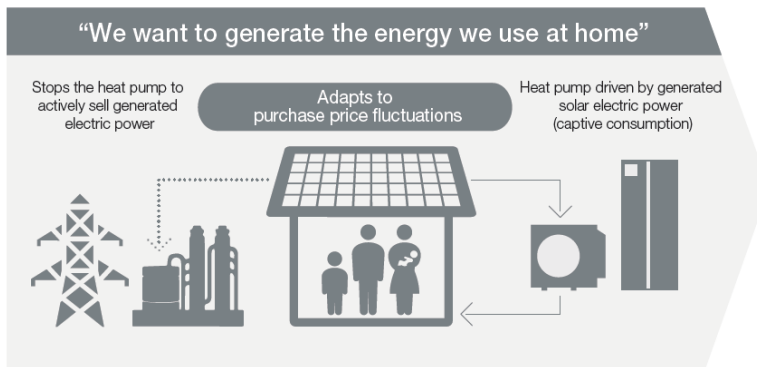
Rather than compromising to save energy, you can now do so with comfort. This is *ECO ONE*'s greatest attraction. It has evolved into a water heater with heating system that provides reliable comfort both in normal and emergency situations.

### [Typical scenarios]



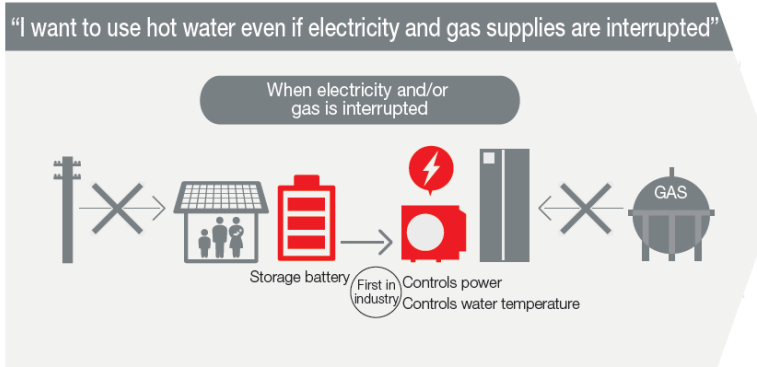
#### **Can be controlled at any time**

Bath can be filled or reheated using a dedicated application from a smartphone or tablet device.



#### **Connected to solar power generation system**

Compares and automatically makes optimal selection during solar power generation time zone after comparing electricity unit sale price and gas unit price



#### **Water heated even when energy is limited (during disasters, for example)**

The system obtains power from a storage battery, a valuable life resource at times of disaster.

## Third-generation *ECO ONE*:

### Better Performance and Design Based on "Future Home" Perspective

The third-generation *ECO ONE*—developed and created with production technologies based on the concepts of environmental friendliness, luxury, and aesthetics—has better energy efficiency and a sleeker external appearance than its predecessors. Here, we introduce the thoughts incorporated into the new *ECO ONE*'s creation.



From the left: Taiki Harada, Product Technology Development Office, Production Engineering Division; Katsunori Maekawa, Design Office, Research & Development Headquarters; and Satoshi Chikamawari, New Technology Design Office, No. 1 Product Development Division, Research & Development Headquarters

### Eco-friendly Product Designed from the Customer’s Viewpoint

To encourage more people to select *ECO ONE*, we focused on external appearance and design from the customer’s viewpoint when developing the third generation. Specifically, we assumed that the system may be installed in easily visible places, such as entranceways and gardens, so we adopted a “champagne metallic” color that goes well with the exterior walls of Japanese homes. To achieve both design appeal and durability, we eliminated the seam lines between outside components.

On the environmental front, we prioritized efficiency with respect to primary energy, an evaluation standard for energy-efficient homes. We also removed the cosmetic exterior cover and changed the thickness of the outer plates to make the system lighter.



### Multiple Variations to Suit Diverse Living Environments

To facilitate installation, we have allowed flexible configurations of the main components that constitute *ECO ONE*, so it can be set up in cramped spaces and adapted to multiple usage requirements (geographical conditions, such as climate and/or high-density dwellings, as well as heating equipment to be connected). Customers can also select the location of the exhaust outlet. In these and other ways, we are working to enhance the variations for adaptability to various installation locations.



### Third-generation *ECO ONE*: Perfected Using Our Knowledge and Processing Technologies

We were particularly adamant about removing the seam lines between outside components, so we used large single-piece plates. This was not possible with previous models, but we deployed our amassed expertise and knowledge about *monozukuri* (craftsmanship) in order to achieve an attractive appearance by eliminating the seam lines. Using our own processing technologies led to a successful outcome. This passionate approach of our development and design team, embodied in *ECO ONE*, was also embraced by our technology team, which refined processing technologies at the manufacturing stage to successfully complete a more advanced generation of *ECO ONE*.

## Quest for Sustainable Social and Living Environments: Helping Create Energy-efficient Homes

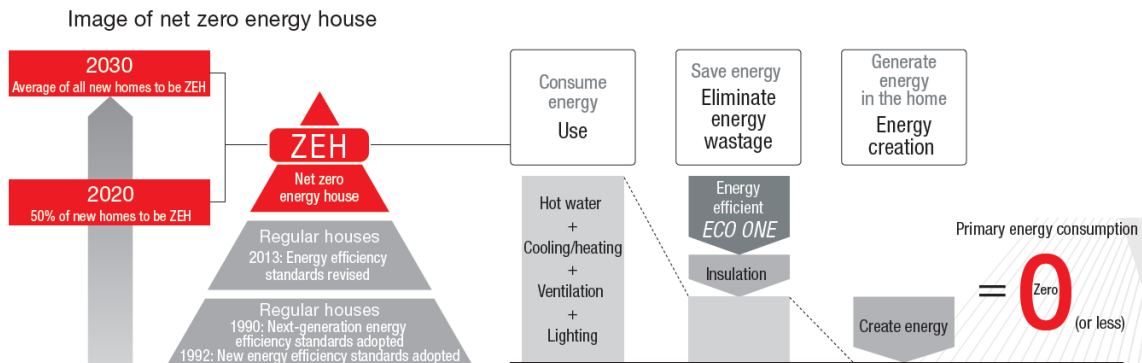
The Japanese government has announced reduction targets for greenhouse gas emissions aimed at protecting our planet. Achieving those targets requires the greatest possible reduction of primary energy consumption in people's homes. To this end, we are promoting the proliferation of energy-efficient homes as outlined below.

### Low-carbon Buildings

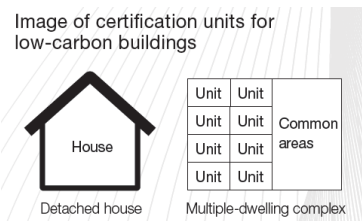
Low-carbon buildings are structures that are specially engineered to limit CO<sub>2</sub> emissions. The home, which serves as the foundation of our lives, uses large amounts of energy, such as electricity and gas. In addition to increasing the insulation levels of buildings, therefore, we need to introduce advanced energy-saving equipment and machines in order to make the entire house energy efficient.

### Net Zero Energy House (ZEH)

A net zero energy house (ZEH) is one that ultimately emits zero net energy, meaning that the amount of energy it produces is more than or almost the same as the amount of energy it consumes. There are expectations that this concept will spread among detached houses in Japan.



Creating low-carbon homes or ZEH requires the installation of energy-efficient equipment and machines in all types of housing configurations, including detached houses and multiple-dwelling complexes, and a public certification system has been launched to encourage proliferation of such homes. Multiple-dwelling complexes have particularly stringent energy-efficiency standards that include efficiency targets for each story and room. Structures that meet these standards are certified as “low-carbon buildings,” and purchasers of such properties are eligible for special housing loans and other forms of economic assistance.



## Meets Stringent Energy-efficiency Standards Even with Floor Heating Installed



Featuring extremely low levels of primary energy consumption, *ECO ONE* meets energy-efficiency standards for low-carbon buildings and ZEH, even those that use hot water for floor heating in addition to normal uses. By promoting the spread of hot water-based floor heating, we will strive to create energy-efficient homes that provide comfortable living without compromise.



**List Residence Yoga: Multiple-dwelling Complex in Which All Units have *ECO ONE* + Floor Heating (Japan’s first residential complex with all-low-carbon units)**

List Residence Yoga is a condominium complex in which all units feature *ECO ONE* and hot-water-based floor heating. It is Japan’s first residential complex to be certified as a low-carbon building. In addition to benefiting the global environment, low-carbon buildings provide great advantages to purchasers, including reduced utility costs and preferential treatment in such areas as taxation and loan interest rates.



Condominium building containing 48 units in Yoga, a leafy sub-urban part of Setagaya-ku, Tokyo. Convenient to the city center, Yoga is very popular for people of all generations. With third-generation *ECO ONE* systems in every unit, the complex is attracting significant media publicity and widespread attention.

**Appeal of *ECO ONE* and Expectations of Rinnai  
(in the words of List Residence Yoga’s development managers)**

**Easily meets standards for low-carbon buildings**

***ECO ONE* a powerful weapon for energy-efficient homes**

List Residence Yoga is a condominium complex targeting people raising children and those in the post-retirement stage of life. With acquisition of low-carbon building certification as a sales point, we designed the complex on the condition that *ECO ONE*—most superior water heater with heating system in terms of primary energy efficiency—would be installed in all units. To confirm compliance with low-carbon building standards, inspections were conducted at all of the 48 units in the complex. Thanks to the excellent performance of *ECO ONE*, our initial plan required almost no modification, and we were able to obtain low-carbon building certification. A representative of a company to which we requested CO<sub>2</sub> emission calculations said, “It’s amazing that a condominium building with floor heating could receive certification. Normally that would be impossible.” With the third-generation *ECO ONE*, the equipment itself is compact enough to allow horizontal configuration, making it easier to install and leaving wider living spaces for occupants.

Our company focuses on the environment and is involved in numerous projects that meet energy efficiency standards. Accordingly, we share the same corporate approach as Rinnai with respect to “making a social contribution through environmentally friendly products.” We feel a kindred spirit as partners with similar aspirations. We hope that Rinnai will continue providing the world with high-performance, safe, wonderful products like *ECO ONE* that reflect the needs of society.



Naoaki Yasunaga,  
Deputy Manager,  
Tokyo Development Business  
Dept., List Development Co., Ltd.



Yosuke Tosaka,  
Manager,  
Tokyo Development Business  
Dept., List Development Co., Ltd.



## Efforts to Make Products Better

### Efforts in Design for the Environment

We follow Design for the Environment (DfE) principles, in accordance with our in-house “Product Assessment Rules” so as to make appliances more energy- and resource-efficient and recyclable. We assess the environmental impact of products at every stage of their lifecycle, from planning and design, to develop appliances with a smaller environmental footprint than previous models.

#### Design for the Environment Guidelines (excerpt)

- Resource conservation
- Reduction of environmental impact at the manufacturing stage
- Reduction of environmental impact of products in use
- Potential for recycling
- Safety
- Simplified collection and transportation

### Energy- and Resource-Savings in the Bathroom and Kitchen

#### ECO ONE Hybrid Water Heater with Heating System

##### Energy-saving and environmentally friendly

- Primary energy efficiency when heating water: 138%
- R32 used as refrigerant for heat pump (reduces global warming coefficient to approximately one-third of conventional refrigerant (R410A))

##### Resource saving

- Approximately 20kg lighter pump (approximately 25% smaller than our previous model)
- Miniaturized heat pump (approximately 25% smaller than our previous model)

##### Made in Japan

ハイブリッド給湯・暖房システム  
ECO ONE



ECO ONE

Hybrid water heater with heating system

#### Heat Source for Gas Water Heaters with Heating Systems

##### Energy-saving

- Energy efficient
- Water heating side: 95%
- Space heating side: 89%

##### Environmentally friendly

- Low NOx emissions: 60ppm or less

##### Resource-saving

- Approximately 6kg lighter (approximately 13% lighter than our previous model)

##### Made in Japan



RUFH-E2406AW2 Series  
Highly efficient gas water heaters with heating systems

## “Bath Hotto” Bathroom Heater/Dryer

### Energy-saving

- This system features an “Eco drying mode,” which slowly dries clothes with cool air before running a drying cycle, as well as a heat-saving function that keeps the bathroom warm. These features cut energy consumption and reduce running costs by about 32% over our previous model.

### Resource-saving

- Designed to facilitate shared use of the ventilation fan, the main unit is about 3kg (22%) lighter than our previous model.
- About 29% smaller in volume than our previous model.

### Comfort

- Low-temperature device specifications facilitate connection to *ECO ONE* hybrid water/space heating system.

### Made in Japan



Bathroom heater/dryer with splash-mist sauna (RBHM-C419K1P)

## Water-Saving Dishwasher/Dryers

### Water-saving

The installation of two pumps specifically for the washing nozzles at top and bottom ensures cleaning performance while saving water and also facilitates various washing cycles.

- Saves about one liter of water compared with our previous models.

### Environmental performance

- Can be used with baking soda detergent that is friendly to people as well as the environment.

### Made in Japan



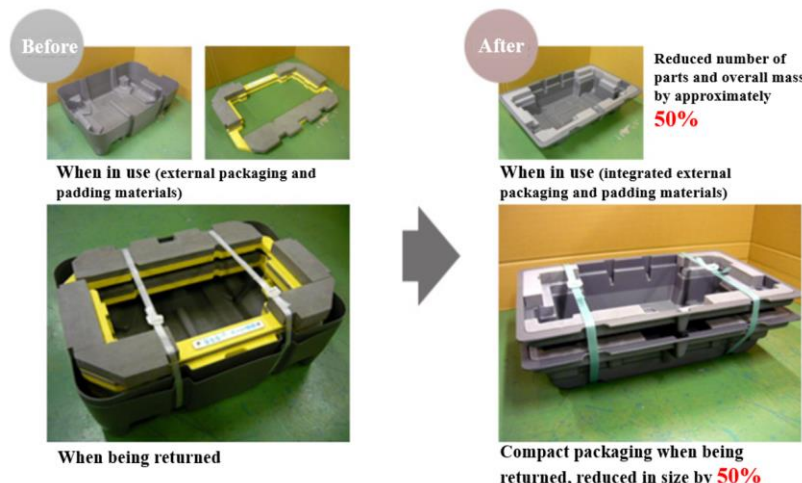
Water-saving dishwasher/dryer (RKW-404LPM)

## Efforts to Improve Packaging

We are promoting the use of packaging made with easy-to-recycle cardboard. We are also working to expand the use of returnable packaging with an eye to the reuse of packaging materials, while reducing the weight and volume of packaging through effective utilization of packaging materials.

### Example 1: Returnable packaging

By integrating the container and cushioning material, we reduced the number of packaging components used and cut packaging weight by about 50% (2.5 kg/unit). This packaging design won an award in the Large and Heavy Duty Equipment Packaging Category in the 2014 Japan Packaging Contest.



**Example 2: Fan heater packaging specifications revised**

The eight parts that made up the bottom box were integrated into one piece, reducing the weight by about 16% (350g/unit). The external dimensions of the outer box were also reduced, by approximately 25% (in volume).

Before



Bottom consisting of eight parts



Product in packaging

After



Fewer parts used and weight reduced by approximately **16%**

Bottom integrated into a single piece



Packaging specifications simplified and size reduced by approximately 50%

**Example 3: Packaging for gas fireplace (New Zealand)**

Rinnai New Zealand developed a new kind of packaging for gas fireplaces that can be repurposed by customers and their families after delivery, rather than thrown away as in the past. The outer box in which the gas fireplace was placed can be reassembled into a castle for kids to play in, and even features turrets and a functioning door. This design won third prize in the Graphic Category of New Zealand's Best Design Awards of 2014.



After assembly



Corrugated fiberboard packaging



On display at an exhibition

## Product Recycling Initiatives

At least 80%-90% of the materials used to make gas appliances consist of recyclable materials such as iron and copper. Gas appliances that have reached the end of their useful lives are collected and disposed of through two channels: by local authorities in the case of appliances that require no installation work, and by contractors in the case of appliances that do require such work.

The Environmental and Recycling Action Committee formed by the Japan Industrial Association of Gas and Kerosene Appliances, of which we are a member, regularly surveys the state of disposal of end-of-life gas and oil appliances. In addition to using questionnaires, the committee conducts recycling verification tests at recycling plants, as necessary, and confirms and shares information on the status of disposal. Surveys confirmed that end-of-life gas and oil appliances are being properly disposed of and that the recycling rate remains high. These results will be useful in product design and improvement activities.



### Recycling Household Electrical Appliances

Japan's Home Appliance Recycling Law went into effect April 2001 with the goals to reduce the amount of waste going to landfills and incinerators and to promote more effective use of resources. Since then, old appliances thrown out by consumers have been recycled into new products. Rinnai now has two products — a unit-style air-conditioner and a clothes dryer — that fall under the category of recycled products.

### Recycling Containers and Packaging

Under the Containers and Packaging Recycling Law, which seeks to make more effective use of resources, manufacturers and businesses that use the products are required to recycle product containers and packaging discarded by households. In accordance with the law, Rinnai has outsourced the recycling of containers and packaging to designated businesses that undertake associated services on the Corporation's behalf.

# Environmental Management System with Our Suppliers

## Promoting Management of Chemical Substances Present in Products

The impact that chemicals have on humans and the global environment varies according to their toxicity and level of exposure or ingestion. To protect their citizens' health and also the global environment, countries around the world are developing legislation that governs the management of chemicals used during the manufacture of products and chemicals in products, and Europe has particularly tight controls in the form of standards such as RoHS and REACH.

The Rinnai Group practices strict management of chemical substance present in products with its suppliers not only in order to comply with all relevant legislation, but also to minimize use of chemicals that might affect people and the environment at all stages of the product lifecycle so as to supply products that are both safe and environmentally friendly.

### Principal EU regulations

- RoHS: Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- REACH: Registration, Evaluation, Authorization and Restriction of Chemicals

We manage the chemicals present in products by following “Chemical substance management policy” that regulate the chemicals present in materials procured by us in accordance with “E-Procurement Standards” for green procurement. We also monitor regulatory developments around the world and are committed to practicing stricter chemical management in collaboration with other members of the Rinnai Group and our suppliers.



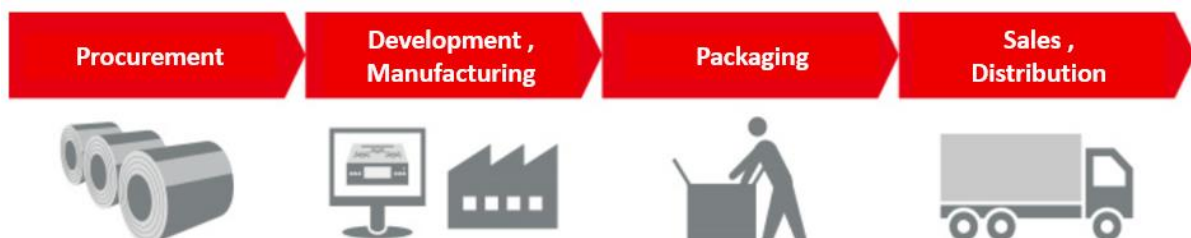
E-Procurement Standard [Ver.3] (left) and Policy on Chemical Substance Management [Ver.3.0]

Practical training (Shanghai Rinnai Co., Ltd.)

## Making Our Supply Chains More Environmentally Friendly

In order to enhance environmental performance throughout our supply chains, we work with suppliers to protect the environment and make manufacturing processes more environmentally friendly.

Sharing our knowledge of the challenges faced at each stage in order to improve the flow of goods and materials from procurement through to production and distribution, we have pursued activities such as the following to mitigate the impact on the environment (by reducing carbon dioxide and waste emissions, saving water, and so on). These activities have also contributed to lower energy costs, shorter lead times, and improvements in quality.





### Example 1: Improvements to printed materials

User manuals and other printed materials that are directly handled by the customer are sorted, packed, and shipped to factories with the utmost care, both to avoid getting them creased or dirty and to make sure that they do not become mixed up with other printed materials.

Working with 13 plants and offices, including the printers that produce user manuals and wiring diagrams, we are making improvements to printing and logistics processes too, as a result of which we have succeeded in reducing the amount of excess packaging generated upstream and mitigating the impact on the environment, while at the same time maintaining the quality of the printed materials that we use.



Adoption of simpler packaging

Examples of improvements:

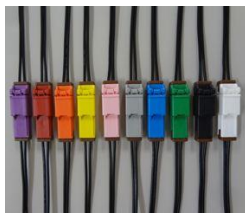
- Direct printing of covers
- Standardization of labels
- Adoption of returnable packaging

Effects:

- Reduction in CO<sub>2</sub> emissions: Approx. 42 tCO<sub>2</sub>/year
- Reduction in waste (paper) emissions: Approx. 22t/year

### Example 2: Development of next-generation connectors

We partnered with connector, harness, and wire manufacturers to develop a next-generation connector. Transcending the boundaries between firms, we worked on a solution put forward from an assembly manufacturer's perspective to develop a connector that reduces the impact on the environment throughout the supply chain.



Connectors in a range of colors



Meeting with suppliers

Advantages of the new connectors:

- Increased range of colors prevents mis-connections during assembly work.
- Adoption of a coloring scheme during the connector production process and reduced use of packaging lessen the environmental impact of manufacture.

Effects:

- Reduction in waste emissions: Approx. 21 t/year
- Reduction in water consumption: Approx. 19,000 ℓ/year

### Example 3: Screws redesigned to suit our products

Having taken a closer look at the tens of thousands of tiny screws we use at the factory every day, we worked with suppliers to devise screw specifications to suit our products.

By uniquely modifying the screws we use, we have managed to improve thread fastening performance while saving resources (by using fewer materials) and energy (by speeding up the fastening process). Packaging methods have also been rethought to make them easier to perform.



Inserting screws

Effects:

- Reduction in raw materials: Approx. 2t per year
- Reduction in electricity consumption: Approx. 5,300 kWh/year
- Reduction in CO<sub>2</sub> emissions: Approx. 2t CO<sub>2</sub> per year
- Reduction in packaging: Approx. 2t per year

#### Revising packing methods



Packed in small cardboard cartons



Switched to reusable containers

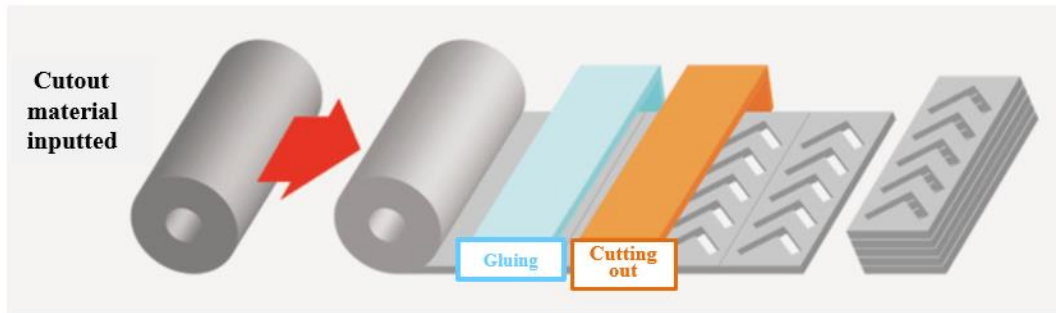
### Example 4: Packing production method revised

We have made changes to how we make and distribute the packing used in water heaters to reduce the impact on the environment and improve workability.

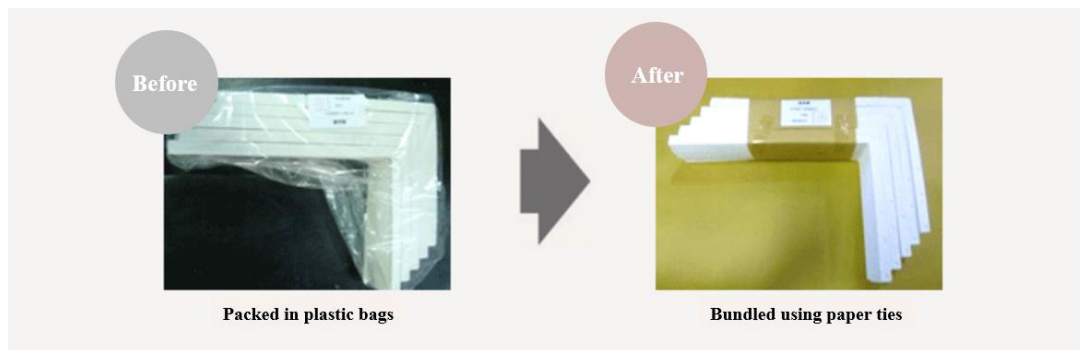
Examples of changes:

- Cutting layout optimized
- Gluing and cutting processes integrated (reducing lead time)
- Packaging specifications changed (to streamline sorting and shipping work)

#### Steps in packing production process



#### Packing method changed



Effects:

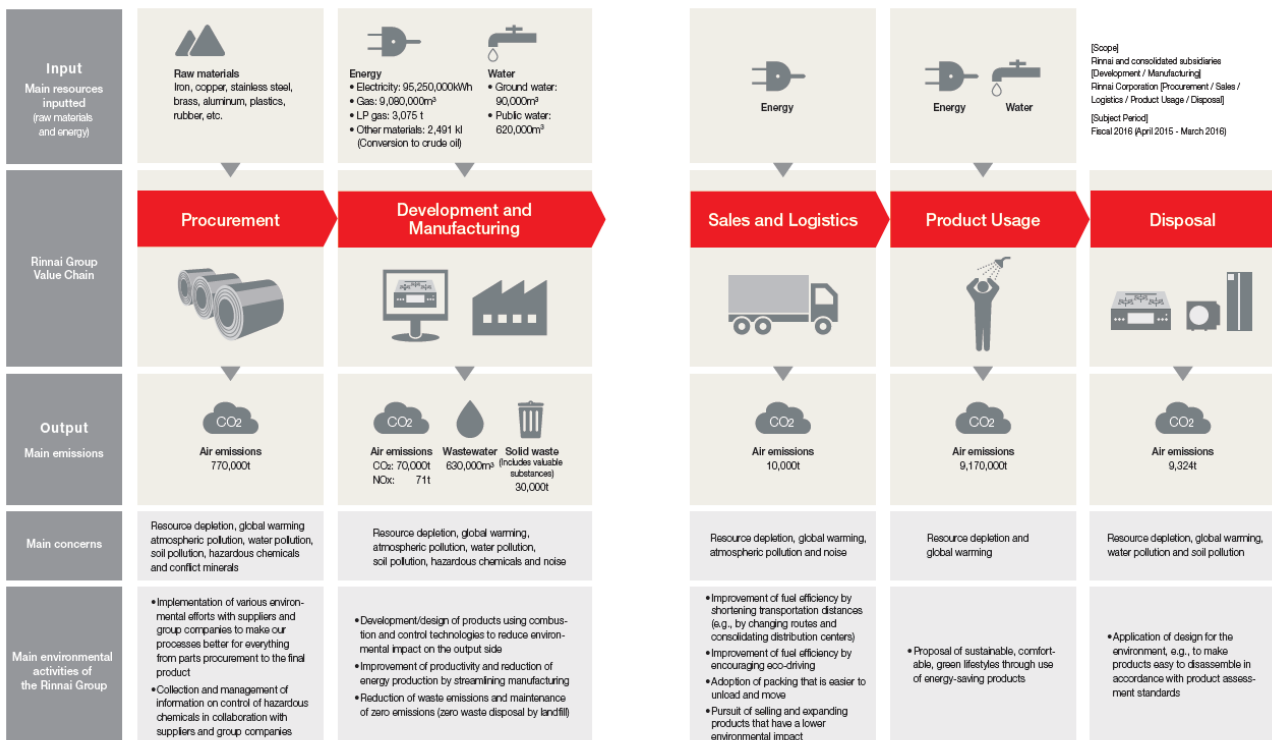
- Reduction in CO<sub>2</sub> emissions: approximately 2t-CO<sub>2</sub>/year
- Reduction in waste emissions: approximately 7t/year

## Environmentally Conscious *Monozukuri*

Rinnai is committed to reducing its impact on the environment by pursuing all kinds of technological innovations and exercising all the manufacturing expertise and experience of appropriate working procedures that it has accumulated since its inception.

## Impact on the Environment of the Rinnai Group

Quantitatively monitoring environmental impact is crucial to protecting the environment. We have begun to monitor the environmental impacts of our business activities throughout our supply chains.



☑ The value chain is the chain of business activities and processes undertaken by a company to generate and deliver value (products and services) to the customer.

## Supply Chain CO<sub>2</sub> Emissions

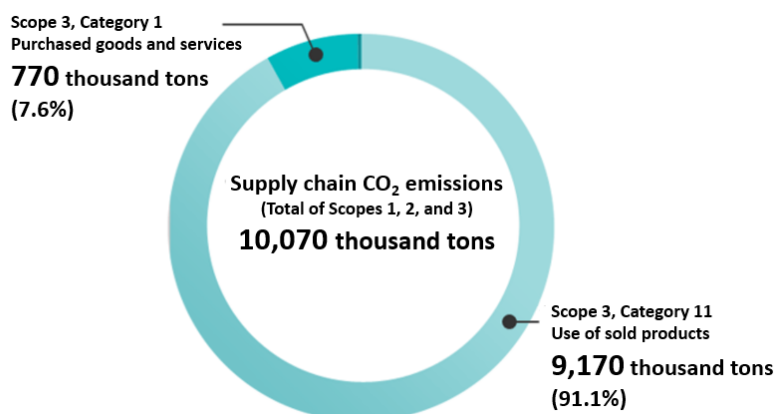
We have begun estimating our emissions following the Japanese Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain. Focusing on the 11 categories that produce the greatest emissions (use of products sold), we are taking targeted action to reduce emissions.

### Emissions by Scope in Fiscal 2016

Scope	Category	CO <sub>2</sub> emissions (t)	Percentage	
Scope 1		35,612	0.4%	
Scope 2		36,006	0.4%	
Scope 3	1	Purchased goods and services	768,241	7.6%
	2	Capital goods	29,203	0.3%
	3	Fuel- and energy-related activities (not included in scope 1 or scope 2)	2,711	0.0%
	4	Upstream transportation and distribution	10,433	0.1%
	5	Waste generated in operations	743	0.0%
	6	Business travel	579	0.0%



7	Employee commuting	1,738	0.0%
8	Upstream leased assets	—	—
9	Downstream transportation and distribution	—	—
10	Processing of sold products	—	—
11	Use of sold products	9,173,479	91.1%
12	End-of-life treatment of sold products	9,324	0.1%
13	Downstream leased assets (downstream)	—	—
14	Franchises	—	—
15	Investments	—	—
Total of Scopes 1, 2, and 3		10,068,069	100%



\*Scope 1: Emissions from operations that are owned or controlled by the reporting company.

\*Scope 2: Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company.

\*Scope 3: All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

\*Scope of accounting

Rinnai Corporation and consolidated subsidiaries (Development / Manufacturing] (Scopes 1 and 2)

Rinnai Corporation (Procurement / Sales / Logistics / Product Usage / Disposal) (Scope 3)

\*Subject Period: fiscal 2016 (April 2015 to March 2016)

- The CO<sub>2</sub> conversion coefficient used to calculate CO<sub>2</sub> emissions is calculated in accordance with the Guidelines on Accounting for Greenhouse Gas Emissions from Businesses (Ministry of the Environment, July 2003). However, the values published by suppliers are used for town gas and methane gas.
- The calorie conversion coefficient is calculated based on the Table of Standard Calorific Values by Energy Source (Agency for Natural Resources and Energy, February 2002 edition). However, the values published by suppliers are used for town gas and methane gas, and 9.84 MJ/kWh is used for electricity.

Electricity		0.378	kg-CO <sub>2</sub> /kWh
Gas	Town gas	2.197	kg-CO <sub>2</sub> /m <sup>3</sup>
	LPG	3.000	kg-CO <sub>2</sub> /kg
	Butane	3.000	kg-CO <sub>2</sub> /kg
	Methane	2.020	kg-CO <sub>2</sub> /m <sup>3</sup>
Oil	Heavy oil	2.710	kg-CO <sub>2</sub> /L
	Kerosene	2.489	kg-CO <sub>2</sub> /L
	Light oil	2.619	kg-CO <sub>2</sub> /L
	Gasoline	2.322	kg-CO <sub>2</sub> /L

▲ CO<sub>2</sub> conversion coefficients (kgCO<sub>2</sub>/unit)

Electricity		9.84	MJ/kWh
Gas	Town gas	46.10	MJ/m <sup>3</sup>
	LPG	50.20	MJ/kg
	Butane	50.20	MJ/kg
	Methane	40.90	MJ/m <sup>3</sup>
Oil	Heavy oil	39.10	MJ/L
	Kerosene	36.70	MJ/L
	Light oil	38.20	MJ/L
	Gasoline	34.60	MJ/L

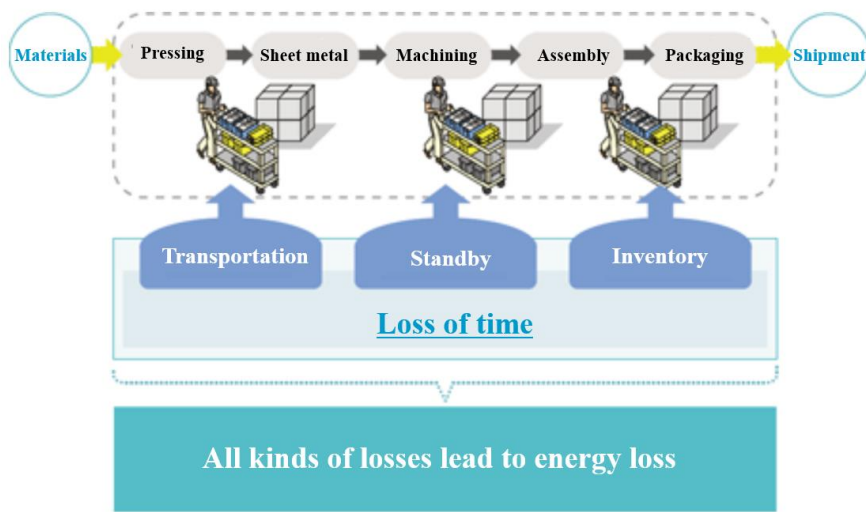
▲ Calorie conversion coefficients (MJ/unit)

## Efforts to Prevent Global Warming

As a “specified business operator” under the revised Act Concerning the Rational Use of Energy, we are pursuing energy efficiency improvements in line with an established energy management policy and targets.

### Action to Conserve Energy

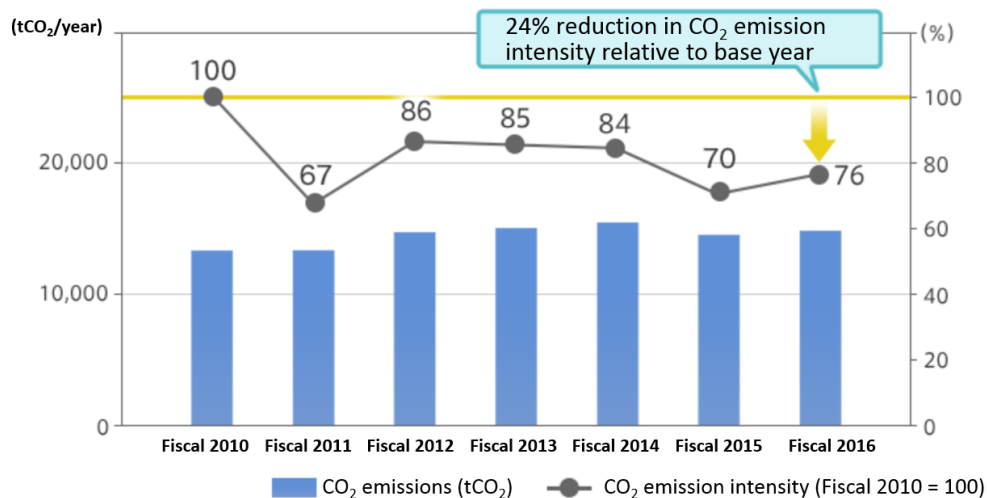
We believe that streamlining the manufacturing process improves productivity and slashes total energy needs. Adopting an end-to-end approach to production that embraces every process from pressing to assembly and packaging, we are working to reduce the time that products and supplies are at a standstill somewhere, whether when being transported, awaiting work on the production line, or being stored in a warehouse, in recognition of the fact that all kinds of losses lead to energy losses.



The Rinnai Group’s environmentally friendly approach to manufacturing (excerpt)

### CO<sub>2</sub> Emission Intensity <sup>\*1</sup> Reduced by 24% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing CO<sub>2</sub> emission intensity by at least 6% relative to fiscal 2010, ending March 31, 2010, by fiscal 2016, ended March 31, 2016, and in fiscal 2016 we achieved a 24% reduction.



(\*1) CO<sub>2</sub> emission intensity: CO<sub>2</sub> emission intensity per standard unit defined by Rinnai. The target is to achieve a reduction of at least 1% per annum.

Scope of accounting: Rinnai Corporation

## Results of Activities

Upgrades/new installations (investments)	Upgrading to high-efficiency lighting and air conditioning systems, upgrading to high-efficiency vending machines, etc.
Optimization (administration)	Reducing lighting, controlling temperature and limiting usage of air conditioning, introducing a voluntary ban on using elevators, configuring office equipment to turn off or switch to standby mode if left unused for prolonged periods, reducing usage of photocopiers (double-sided printing, using condensed printing settings), reducing usage of drinks machines, etc.
Optimization (manufacturing)	Optimizing set pressure and start/stop times on compressors, improving furnace efficiency in order to reduce operating times, reusing exhaust heat from boilers, etc.
Others	Introducing early-morning overtime scheme and reducing late-night overtime (no need for air conditioning in early morning), issuing peak alerts via power monitoring system, bringing forward and extending “Cool Biz” operations, eliminating air leaks, organizing “waste patrols”, using green curtains and bamboo screens to reduce strain on air conditioning, etc.

## Summer Power-Saving Activities at All Plants and Offices

We have waged ongoing campaigns to save power (primarily by cutting electricity consumption) at all our operations since fiscal 2012, ended March 31, 2012. These have incorporated action to improve use of lighting and air conditioning in all our workplaces, resulting in summertime power savings of 1.56 million kWh.



Replacement of conventional lights with LED ones (Rinnai Brazil)



A patrol checking for air leaks (RT Engineering)



A green “curtain” of plants at one of our offices

## Use of Renewables

The Rinnai Group is working to increase use of renewable energy sources, such as solar and wind power, at all its operations in Japan and around the world. In fiscal 2015, we generated 60,000 kWh from renewable sources.



Photovoltaic system (Tohoku sales branch)



Photovoltaic system and solar waterheating (Shanghai Rinnai Co., Ltd.)



Wind and photovoltaic system  
(head office parking area)



Photovoltaic system  
(Technology Center)

## Improvements to Logistics

We are pursuing action to improve logistics operations in accordance with a plan for rationalization of energy use formulated as a “specified consigner” under the Act on Rational Use of Energy. ([link](#))

## Action to Promote Eco-Driving

Please see page 47 “Safe and Eco-Friendly Driving Initiatives”

# Action on Waste and Water Resources

## Reduced Waste Output and Zero Emissions

We strive to maintain zero emissions\*<sup>1</sup> and reduce waste output.

\*<sup>1</sup> Definition of zero emissions: More than 99.5% of waste is recycled (including heat recovery)

### Efforts to Curb Generation of Waste [waste reduction activities]

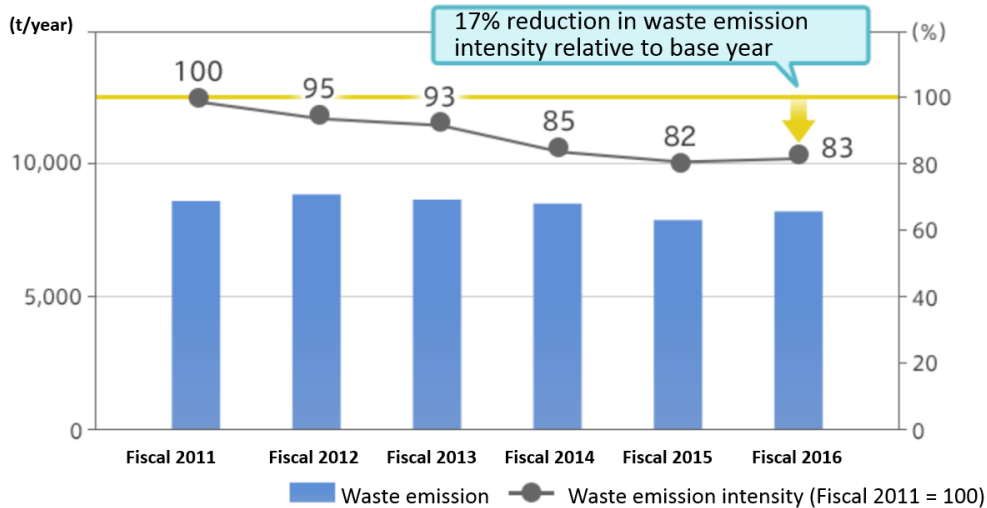
- Don't buy something that will end up as garbage: abolition of the excessive packing in cooperation with clients
- Return reusable items to respective point of purchase: usage of returnable materials for transportation in cooperation with clients
- Reuse: improvement of reuse ratio of residual chemicals
- Don't make waste: improvement of available percentage of materials
- Recycle/ reduce volume: improvement of fractionation method, transaction with superior waste disposers



Returnable packaging (Rinnai Brazil)

## Waste Emission Intensity<sup>(\*)2</sup> Reduced by 17% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing waste emission intensity by 5% relative to fiscal 2011, ending March 31, 2011, by fiscal 2016, ended March 31, 2016, and we achieved a reduction of 17% in fiscal 2016. Total waste emissions are down 4.7% from fiscal 2011, and are being steadily reduced compared to the base year.



(\*1) Waste emission intensity: Waste emissions per standard unit defined by Rinnai. The target is to achieve a reduction of at least 1% per annum.  
 Scope of accounting: Rinnai Corporation

### Improvement of Production Process Yields

We are working to increase effective utilization of pressed parts (materials) by a number of strategies in order to reduce the impact on the environment.

These include:

- Modification of pressing processes and die constructions to enable stable production of quality products
- Use of computer-aided engineering (CAE) to minimize scrap emissions and trim the dimensions of materials used

### Improvement of Recycling Quality

We are working to raise the “quality” of our recycling in order to make more effective use of waste as fuel and other resources. We are doing this in several ways, including by revisiting how materials are sorted and collected, and by shifting from thermal recycling to material recycling.

### Industrial Waste Disposal

We rigorously screen waste disposal contractors before signing contracts, including checking business conditions and making onsite visits. To ensure that waste is being disposed of properly, we send representatives to visit contractors every year, to carry out visual confirmation and exchange information on matters such as types of waste, waste manifest management for disposal methods and conditions, and standards of waste disposal. In fiscal 2016, we confirmed that 38 contractors were conducting waste management in an appropriate manner.





Visiting disposal sites



Waste being sorted at a disposal site

## Polychlorinated Biphenyl Waste Management

Polychlorinated biphenyls (PCB) are used for purposes such as insulating oils and are subject to the Act on Special Measures concerning Promotion of Proper Treatment of PBC Wastes, which requires companies to reinforce storage and safely dispose of PCB by the end of March 2027. Although we are continuing with measures aimed at disposing of PCB as soon as possible, in the meantime, we are taking steps to prevent leaks in the event of equipment failure during storage, keeping PCB under lock-and-key to prevent loss or damage, and monitoring equipment using nameplates, until disposal of PCB can be completed.

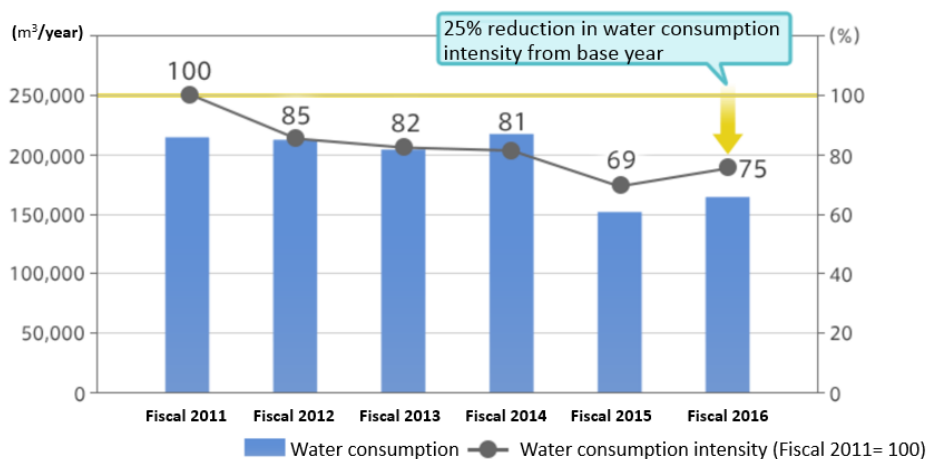
We are also taking measures to ensure that scrap appliances found to contain trace elements of PCB are adequately stored and appropriately disposed of at facilities certified by the Minister for the Environment from fiscal 2011 onwards.

## Protecting Water Resources

We recognize that water resources are an important resource, and are taking steps to reduce use of utility water and groundwater. We routinely take active steps to save and recycle water, and also strive to manage wastewater so that emissions do not harm the environment.

### Water Consumption Intensity (\*2) Reduced by 25% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing water consumption intensity by at least 5% relative to fiscal 2011, ending March 31, 2011, by fiscal 2016, ended March 31, 2016, and we achieved a 25% reduction in fiscal 2016. Total water consumption is down 23.5% from fiscal 2011, and is being steadily reduced compared to the base year.



(\*2) Water consumption intensity: Water consumption per standard unit defined by Rinnai. The target is to achieve a reduction of at least 1% per annum.

Scope of accounting: Rinnai Corporation

## Action to Save Water

Improvements such as the following have been made to paint processes to make them more environmentally friendly, resulting in water savings and also reduced use of chemicals to treat wastewater.

Water conservation activities are a key ongoing theme of environmental training throughout the Rinnai Group's manufacturing operations, and they are producing excellent results.

Key improvements include:

- Changes to methods used to feed water to head-end processes
- Installation of systems for recirculating and filtering virtually all chemical solution in tanks
- Use of treated wastewater in office washrooms, etc.
- Regular checks for and in-house repair of leaks from pumps, etc.

Effects of environmental improvements made by group companies involved in manufacturing:

- Reduction in water consumption: Approx. 22,000 m<sup>3</sup>/year
- Reduction in waste emissions: Approx. 40 t/year



Wastewater treatment plant  
(Yanagisawa Factory)

## Wastewater Quality Management

To ensure that the water treated at wastewater plants causes no harm to rivers, it is constantly monitored before discharge to ensure that its pH is kept to within even stricter limits than required by law.



Water monitoring unit



Analyzing wastewater

## Efforts to Prevent Pollution

### Reducing or Eliminating Use of Harmful Chemical Substances

Failure to conduct proper management of certain chemical substances could lead to environmental pollution.

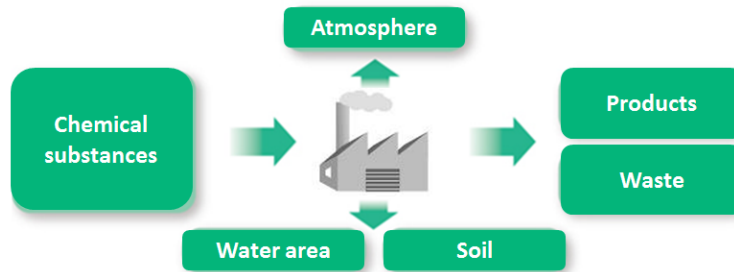
Accumulation of such substances over a long period may also affect the health of people and the ecosystem. To minimize the impact of such substances on the environment, we take measures for reducing or eliminating use of harmful chemical substances in our production processes, such as reviews of materials containing certain substances and improvement of processing facilities.



## Management of Usage Amount of Chemical Substances

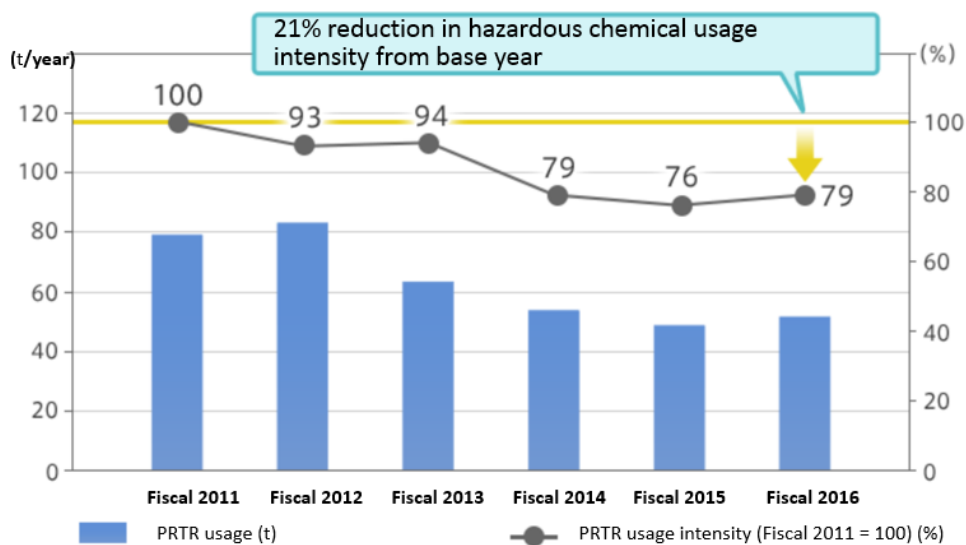
At each production site, we check and manage the amounts handled, released, and transferred of the 462 Class 1 chemical substances designated under the PRTR law, for which 500 kg or more is handled each year.

**Flows of release and transfer of chemical substances (PRTR substances)**



### Hazardous Chemical Usage Intensity <sup>(\*)</sup> Reduced by 21% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing hazardous chemical usage intensity by at least 5% from fiscal 2011, ending March 31, 2011, by fiscal 2016, ended March 31, 2016, and we achieved a 21% reduction in fiscal 2016.



(\*)1 Hazardous chemical usage intensity: Usage of hazardous chemicals per standard unit defined by Rinnai. The aim is to achieve a reduction of at least 1% per annum.  
 Scope of accounting: Rinnai Corporation

### Example: Reduction of use of cleaning thinner

As part of our efforts to make paint lines more environmentally friendly, we have rethought the layout and capacities of equipment (such as paint valves) and changed piping lengths to reduce rinse times. The result has been an approximately 45% reduction in the amount of waste cleaning solution used and a reduction in the amount of PRTR chemicals contained in cleaning solution.

Effects:

- Reduction in cleaning thinner usage: 4.5 t/year (-45%)
- Reduction in PRTR chemicals: Approx. 360 kg/year

## Efforts to Prevent Pollution

### Preparing for Emergencies

All offices run annual drills premised on adverse events, such as environmental accidents. To minimize environmental risk, we have also reviewed procedures setting out actions to take in the event of a crisis and have prepared emergency provisions.



Emergency response drill

### Environment-Focused Equipment Inspection

To prevent accidents that would impact the environment, we identify equipment with the potential to adversely affect the environment and run concerted environment-focused inspections on these pieces of equipment on an annual basis. We make every effort to preempt and prevent serious accidents that could impact on the environment, through measures such as inspecting individual items of equipment, checking that measuring instruments are functioning correctly, and running emergency simulations.

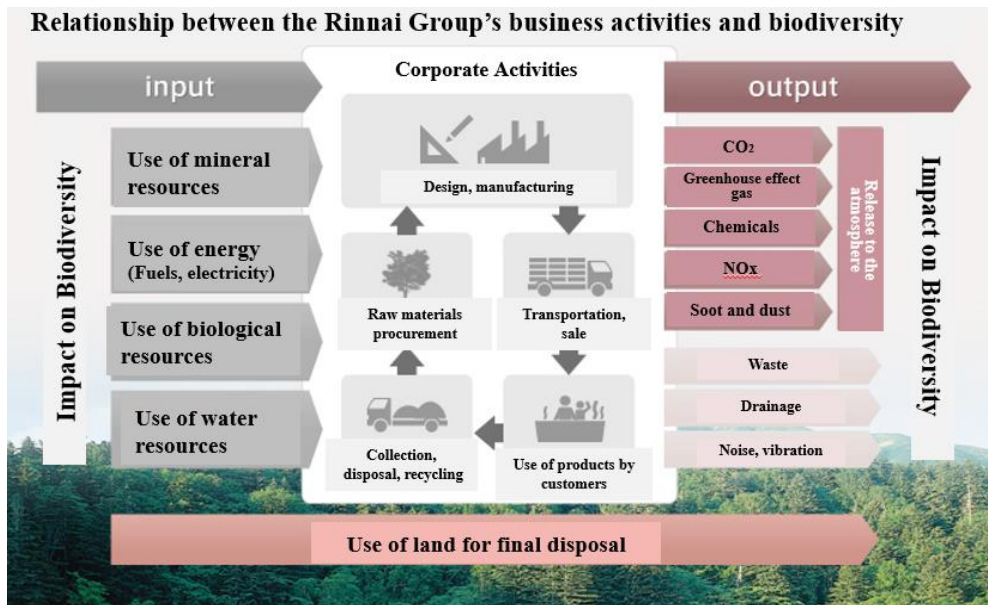


Equipment inspection

## Protecting Biodiversity

As one of the cornerstones of sustainability, protecting biodiversity is one of humanity’s most urgent priorities. The natural environment and ecosystems are susceptible to impact as a result of the location of our facilities, the procurement of resources for our business activities, and the emission of environmentally hazardous substances into the atmosphere, soil and water. As a company, we recognize that our business activities are inextricably linked to biodiversity, and that we need to think about ways to sustainably access the benefits that ecosystems provide.

The Company approved the "Declaration on Biodiversity by Nippon Keidanren (the Federation of Economic Organizations). We organize internal seminars to raise employee awareness of the relationship between our business activities and biodiversity. We also promote activities that help to preserve biodiversity (carbon dioxide, waste, atmosphere, water, etc.), by reducing environmental impact for instance.



### Promotion of Cleanup Activities around Our Sites

The Rinnai Group organizes periodic cleanups along commuting routes and around its plants. These are carried out by employees as part of efforts to protect the surrounding natural environment, and a total of 1,445 employees took part in these activities in fiscal 2016.



Cleanup activities underway around our plants and offices

## Status of Legal Compliance

Naturally, we comply with laws and regulations, but we seek to do better than the minimum required and have set our own benchmarks as targets to achieve. We also perform checks, mainly daily monitoring, routine evaluations and environmental audits, and strive to reduce the release of hazardous chemicals and other pollutants into the air and local water systems. We reinforce equipment operation and maintenance practices and take preemptive action if facility status looks as though it may exceed the level we deem permissible. If we can meet our own tough standards, we will surely meet the levels required by government.



From the left, measurement of soot and smoke, water quality, and odor measurement

### Status of Compliance with Laws and Regulations

There were no violations of pollution control or other environmental legislation in fiscal 2016.



# Measures to Improve Logistics

The Company promote its energy-use rationalization plan as a specified shipper under the revised Rationalization in Energy Use Law. We appropriately administrate and review the energy use status concerning product logistics, in cooperate with logistics partners. From multilateral viewpoints, we implement measures for logistic efficiency to reduce energy use.

## Improvements to Logistics

The Group’s products are produced at plants located mainly in Japan and then distributed around Japan and to other countries in Asia, Europe, North America, and beyond.

Our Integrated Logistics Center monitors primarily the logistics routes used by the Group’s manufacturing operations in Japan, distribution volumes, and carbon dioxide emissions. At the same time, it is working to raise work efficiency and improve operations by, for example, delivering products in sets and reducing shipments back upstream in order to improve transportation efficiency, reduce the impact on the environment, and cut costs.

In 2014, we merged our logistics operations in Aichi Prefecture, where our manufacturing operations are concentrated, into two centers. Since then, we have been systematically consolidating core warehouses dispersed across Japan, and as a result have succeeded in reducing holdings of overlapping inventories, non-essential and non-urgent production, and “horizontal transportation.”\*

\*“Horizontal transportation”: transportation that doesn’t include final destination (customer site), such as the route between Rinnai factory and its warehouse

### Trend of Shipping Volume and CO<sub>2</sub> Emission

Fiscal year ended March 31	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016
Shipping volume (ton x km)	6,519	6,483	6,333	6,687	6,587	6,836	6,763	6,429
CO <sub>2</sub> emission volume (TCO <sub>2</sub> )	10,013	9,901	9,837	10,238	10,440	10,967	10,756	10,545

### Initiatives Being Pursued

- Expansion of consolidated shipping within the Group
- Review and adjustment of product delivery routes
- Effective use of round-trip shipments
- Modal shift\*
- Increase in stacking per pallet
- Encouragement of eco-driving

\*Modal shift: Shift of transportation from roads to other forms of bulk transportation (rail or sea).



Improve carry efficiency by the shape change of a corrugated cardboard

**Example: Fuel consumed during transportation reduced by switching to consolidated shipping**

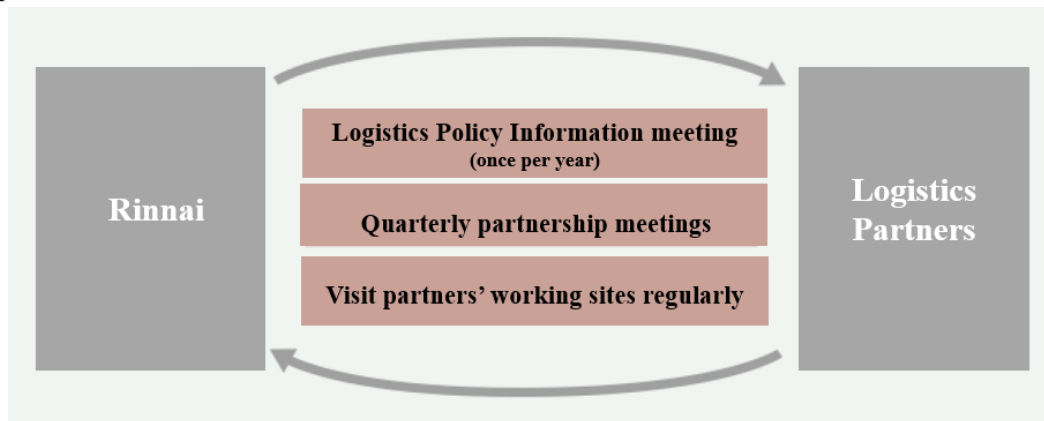
The adoption of consolidated shipping by manufacturing affiliates RB Controls and Noto Teck to distribute products has reduced the number of round-trip journeys required between Ishikawa and Aichi by one and cut emissions by 62 tCO<sub>2</sub> per year.



RB Controls, logistics center

**Communication with Logistics Partners**

Once a year, we hold a logistics policy information meeting to help service providers gain deeper insight into the logistics policy, targets and measures of the Company and logistics department. In addition, we arrange quarterly partnership meetings to reduce environmental impact in relation to the transportation and storage of products, and to improve the quality. We also visit partners' working sites regularly to share issues with them and help them make improvements.



**Example: Action to improve logistics quality**

**System of item-by-item control and inspection using QR codes introduced**

QR codes, which identify each product, are affixed to all products and utilized in many processes at logistic centers such as when products are brought in and out. By reading the data of QR code, we have drastically improved the quality of logistics by preventing errors and improving the traceability of each item. In addition, the combined use of wireless terminals, real-time operation instruction and actual result collection is contributing to improved work efficiency.

**Action to eliminate mis-shipments**

Responding to the needs of our logistics partners, we are switching to use of *kanji* instead of *katakana* for delivery invoices and shipping labels in order to improve readability and eliminate mis-shipments caused by mis-readings.

**Product code (with QR code)**



**Product Label**

Information includes product code, gas type, production number, production date, production line, etc.

## Safe and Eco-Friendly Driving Initiatives

We have introduced a system for quantifying and centrally managing fleet operations at our sales offices and other relevant operations, and we are also working to make employees more aware of how they can drive in a safer, more efficient, and eco-friendly manner. The system is designed to automatically email managers if a driver drives too fast, accelerates rapidly, or brakes suddenly, and this has improved average fuel efficiency by approximately 5% per annum since it was introduced. The system is also helping to reduce traffic accidents and violations on public roads, and we plan to roll out similar initiatives company-wide in the future.



Company vehicles (Chubu Branch)

## Driving Seminars

We bring in outside instructors to teach regular “safe and eco-friendly driving seminars” for employees who use company vehicles (mainly in sales and management) with the aim of preventing traffic accidents and preventing global warming. A total of 32 employees have attended these seminars, which provide instruction in and explain topics such as the basics of traffic safety and ways of practicing eco-friendly driving.



A “safe and eco-friendly” driving seminar (left) and anti-idling reminder at our Chugoku Sales Office (right)



## Environment Education and Promotion of Awareness

### Fully Inclusive Environmental Activities

The Rinnai Group engages in activities designed to enhance environmental protection and raise environmental awareness at individual plants and offices. Every June is designated “Environment Month,” during which time various participatory environmental awareness-raising activities are organized.

### Rinnai Group Environment Awards Programs

The Rinnai Group Environmental Awards are held annually to recognize outstanding environmental activities and stimulate more action on the environment throughout the Group. These awards recognize major contributions to the environment and society, and are open to all our operations in Japan and around the world. The seventh awards ceremony was held at the Rinnai Group Convention.

A record 103 entries were received in fiscal 2016, from which 10 prize winners in categories including Manufacturing, Offices, Sales, and Contribution to Society were selected.



Award ceremony (left), and panel display showing outstanding achievements

### Rinnai Group Environmental Grand Prize Results for Fiscal 2016

Prize	Category	Recipient	Theme of activity
First Prize	Manufacturing and logistics	Product Preparation Dept., Seto Factory	Environmental improvements to printed materials (materials to products)
Second Prize	Product and production technology design	Product Development Div. I Research & Development Headquarters	3rd generation <i>Eco-One</i> hybrid water/space heating system
Second Prize	Overseas	Rinnai Brasil	Elimination of use of solar panel paint
Second Prize	Contribution to society	Ms. Mayuko Hanai, Information System Div., Corporate Planning Headquarters	PR activities undertaken by “vegetable sommeliers” to promote local production and consumption
Second Prize	Management and sales	Sales Promotion Office, Planning Div., RB Controls Co., Ltd.	Marketing of bathroom lighting system (“line lighting”)
Third Prize	Product and production technology design	Product Development Div., RB Controls Co., Ltd.	Development of compact recessed LED lighting (75 mm diameter)
Third Prize	Manufacturing and logistics	Facility and Machine Dept., Machine Office, Production Engineering Div.	Attainment of 100% yield in stainless steel pipe production

Third Prize	Manufacturing and logistics	Technology Management Dept., Production Engineering Div.	Wastewater treatment technology and costs
Third Prize	Manufacturing and logistics	Heat exchange dept., First Manufacturing Dept., Seto Factory	Reduction of swarf generated by hollowing of materials
Third Prize	Management and sales	Information Systems Div., RB Controls Co., Ltd.	Reduction of electricity consumption by server virtualization

### Learning from Other Companies: Visits to Environmental Pioneers

Persons in charge of environmental issues regularly visit other companies that are pioneers in the field of action on the environment. During these visits, they see and learn about these companies' environmental technologies and facilities, share views with their counterparts, and use this knowledge to improve day-to-day environmental protection at Rinnai. (About once a year)



Group photo

### Environment Cards Distributed to All Employees

To keep all our employees abreast of the Rinnai Group's environmental policies, we issue everyone with pocket-sized "Environmental Cards" that summarize our basic environmental philosophy, environmental slogan, and 7E strategic initiatives. These cards have space on the back for employees to write their own personal goals for environmental action in the home and the workplace in order to help make them more eco-conscious. Individual plants and offices also implement their own innovative schemes to raise awareness of the environment and costs, such as by issuing handy cards that show environmental costs at a glance.



Environment Card



Cards outlining environmental costs

## Encouragement of Communication on the Environment among Employees

We publish a regular in-house environmental newsletter *Eco no Coe* to keep our employees around the world up to date with the Group's own environmental activities and environmental trends elsewhere in Japan and other countries. Published since 1999 as a means of raising environmental knowledge and awareness and encouraging communication on the subject among employees.



*Eco no Coe, Summer Issue*

### **Eco no Coe's Campaign: Activities to Raise Environmental Awareness through Cultivation of Heirloom Vegetables**

As part of our program of activities to raise environmental awareness, we have organized an "Heirloom Seed Campaign" incorporating a questionnaire on regional food culture, and seeds for growing heirloom vegetables that have been traditionally grown in Aichi Prefecture were sent to questionnaire respondents. The idea behind the campaign is that by growing these heirloom vegetables, participants will have the opportunity to learn about and rediscover the value of food culture and the natural environment at the local level.

Showcasing the cultivation of these vegetables from seeds and the recipes that can be made using them in *Eco no Coe* was found to generate more communication on environmental activities.

This inhouse campaign was undertaken referring to a "Green Echo Activity" by the Environmental Partnership Organizing Club.

Looking ahead, we will expand awareness-raising activities of this kind in keeping with the goal of Green Echo Activities.



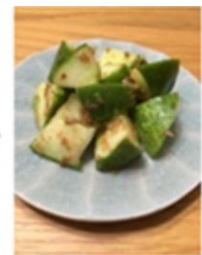
Odakana grown in the workplace



Odakana *ohitashi*



Picking Aodai cucumbers



Aodai cucumber *aemono*

**\* Heirloom vegetables**

Vegetables such as *Kyo-yasai* and *Kaga-yasai* that have long been grown locally.

**\* Environmental Partnership Organizing Club ("EPOC")**

A private organization involving leading companies in the Chubu region around Nagoya. Spanning a range of different industries and lines of business, these companies work together on activities to build a recycling-oriented economy and society.

**\* Goal of Green Echo Activities**

To expand environmental action by developing environmental awareness in three steps: "feeling," "thought," and "action." Green Echo Activities commenced in fiscal 2015.



## Encouraging Eco Friendly Commuting

The Technology Development Center encourages employees to voluntarily commute in an eco-friendly manner by designating certain days as “no car days.” On these days, employees come to work by public transport or bicycle in order to reduce carbon dioxide emissions and the noise pollution caused by traffic congestion near the center. This not only reduces the impact on the environment, but also provides employees with healthy moderate exercise.



Bike racks  
at the Technology Development Center

- Reduction in CO<sub>2</sub> emissions: Approx. 1t CO<sub>2</sub>/year

## Green Purchasing

Plants' and offices' procurement managers are encouraged to buy “green” by purchasing environmentally friendly office supplies such as recycled paper. Our “7E Strategic Initiatives” environmental action plan adopts the “green purchasing rate” as an indicator of offices' environmental performance, and we are working to keep this rate at 91% or over every year.

\* “Green procurement” and “Green purchasing”: “Green procurement” is to acquire goods directly related to our production activity, and “Green purchasing” means purchase of office-related supplies and facilities. We define products that are covered by the Green Purchasing Act or that bear the Eco Mark, Energy Star Mark, etc. as “green supplies,” and encourage their purchase and procurement.

## Participation in Environmental Exhibitions

Please see Page 115 “Exhibit at Eco Products 2015”.

# Environmental Management System

Rinnai maintains an environmental management system based on ISO 14001. We effectively utilize this management system and constantly strive to promote environment management practices aimed at environmentally conscious *monozukuri* and to raise environmental performance. Our goal is to contribute to the formation of a society capable of sustainable development.

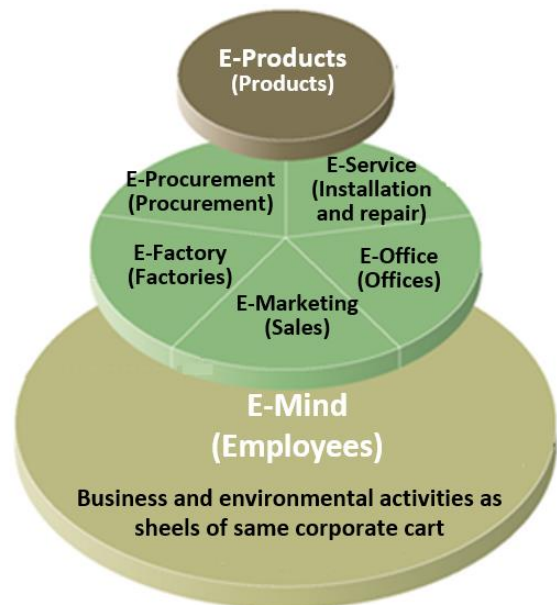
## Approach to the Environment

Rinnai has adopted an environmental basic philosophy, environmental slogan, and “7E Strategic Initiatives” environmental action plan (fiscal 2016 to fiscal 2018) in accordance with its Environmental Basic Policy, and these guide the implementation of environmental activities undertaken with the involvement of the entire workforce in all business domains.

Recognizing that our activities have a close bearing on the global environment, we pursue company-wide action to not only reduce greenhouse gas emissions generated during use of our products but also to mitigate their impact at every stage of the lifecycle, from development, procurement, and production all the way through to distribution and disposal.



**Rinnai's act on environmental issues**



**7E Strategic Initiatives**

## ISO 14001 Certification

To underpin the systematic and continuous development of environment-oriented activities in line with our stated basic environmental policy, we encourage all members of the Rinnai Group to embrace efforts to acquire and maintain ISO14001 certification.

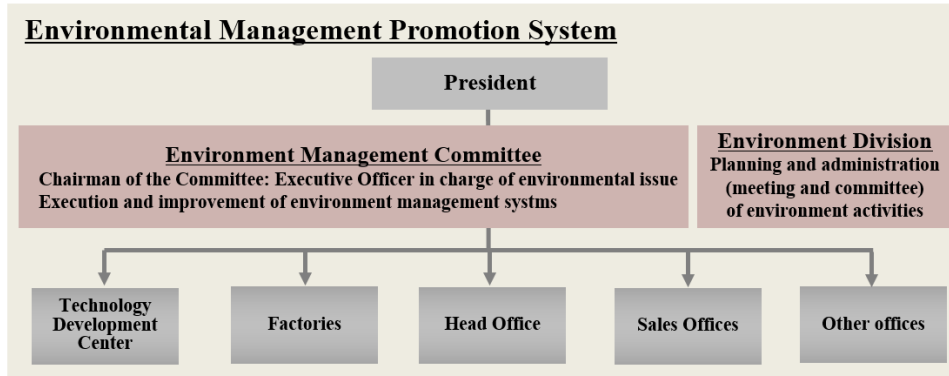


Hokkaido Sales Office



## Promotional Framework for Environmental Activities

Headed by the President, the Environment Management Committee guides corporate efforts to achieve targets based on environmental policy. This committee is chaired by the executive officer responsible for the environment and has the participation of representatives from all divisions. Its mandate is to promote environment-oriented activities from a big-picture view.



## Environment Management Activities

The Environment Management Committee discusses and decides important items including the basic environmental basic policy, the goal and a medium to long-term plan. The committee thoroughly informs individual divisions of decisions made by the committee and promotes concrete activities in line with annual plans. We review our objectives as necessary and diligently strive to meet our targets. To perform specific activities, each division has a liaison group and holds routine meetings to make issues known to everyone in the respective division and continue improvement activities.



Environmental Management Committee (left) and a divisional liaison group

## External and Internal Environmental Audits

The ISO 14011 Certification Division undergoes a routine audit, once a year, by an external screening/registration body to verify that the environmental management system is being properly applied. The routine audit in fiscal 2015 did not turn up any major non-conformances.



External audits

As part of internal audits, Auditing team, comprising impartial internal auditors chosen from within the Corporation who have no direct connection to the division under audit, assess conformity to the established environmental management system and review division activities. Auditors visit worksites of divisions tapped for an audit and perform detailed inspections. Direct contact between auditors and divisions facilitates greater understanding of division activities and auditor concerns. Internal audits in fiscal 2016 identified no major non-conformances, three areas for minor improvements, and 40 observations. The areas for minor improvements and observations were immediately addressed.



Internal audits

## Environmental Training

Raising each employee’s environmental awareness is important for promoting environmental activities. To provide as many employees as possible with opportunities to raise their environmental awareness, we plan and offer training programs for developing and fostering human resources who will actually engage in environmental activities, as well as new employee training and rank-specific training programs.

### Main environmental trainings

- Environmental training for environmental internal auditors
- Environmental training for person in charge of environmental issues
- Environmental training for Group employees in Japan and abroad
- Environmental training for new employees



Environmental training for person in charge of environmental issues

## Internal Auditor Training

Internal auditors play a significant role over and above their efforts to continuously improve the environmental management system. The execution of audit requires highly specialized knowledge and communication skill. To upgrade the skills of internal auditors, we conduct regular training by in-house instructors on such topics as laws and ordinances, internal regulations, internal audit observations and improvement measures, and environment-oriented trends.

Internal audit workshops

35 participants



Internal Auditor Training



## Environmental Training for Trainees from Group Companies in Japan and Abroad

To raise the standard of practice in the Group as a whole, we provide trainees with regular environmental training. This covers topics including our approach to the environment, approaches to environmentally friendly manufacturing, and case studies illustrating how improvements can be made.

In fiscal 2016, training focused on methods of improving wastewater treatment and flows of supplies and products.



Employees receiving environmental training

**[ISO 14001: 2004] Environmental management system certification acquisition status**

	Location	Certified year/month
Rinnai	Research and Development Headquarters	October 1997
	Production Engineering Division	October 1997
	Oguchi Factory	October 1997
	Seto Factory	December 2000
	Environment Division	December 2000
	Asahi Factory	November 2003
	Quality Assurance Headquarters	November 2003
	Head Office	December 2008
	Kansai Branch	May 2010
	Logistic Control Office	May 2010
	Kanto Branch	May 2011
	Chugoku sales office	May 2011
	Rinnai Parts Center	May 2011
	Kyushu Branch	April 2012
	Hokkaido sales office	April 2012
	Niigata sales office	April 2012
	Tohoku Branch	May 2013
	Shikoku sales office	May 2013
Higashikanto sales office	April 2014	
Kitakanto sales office	April 2016	
Domestic Group Company	Gastar Co., Ltd.	October 2001
	Rinnai Technica Co., Ltd.	December 2003
	Yanagisawa Manufacturing Co., Ltd.	June 2004
	Rinnai Precision Co., Ltd.	December 2005
	Japan Ceramics Co., Ltd.	January 2006
	RT Engineering Co., Ltd.	March 2006
	RB Controls Co., Ltd.	March 2006
	Noto Tech Co., Ltd.	January 2007
Overseas Group Company	Rinnai Korea Corporation	July 1997
	RB Korea Ltd.	October 2006
	Shanghai Rinnai Co., Ltd.	December 2008
	Rinnai Brasil Heating Technology Ltd.	June 2011
	Rinnai New Zealand Ltd.	July 2013

**Environment Management System "Eco Action21"**

Location Name		Certified year/month
Domestic Group Company	Techno Parts Co., Ltd.	August 2011

# Fiscal 2016 Environmental Action Plan and Performance

Targets, performance, and assessments in key areas of activity in fiscal 2016

(7E Strategic Initiatives: E-Products, E-Factories, E-Marketing, E-Services, E-Offices, E-Mind)

Key to self-assessment of annual target attainment (attainment rate) ○100% △at least 70%

Scope: Rinnai Corporation

Field of Activity	Fiscal 2016 Target	Fiscal 2016 Results	Assessment
E-Marketing (Sales)	<ul style="list-style-type: none"> <li>Reduction in CO<sub>2</sub> emissions by water heaters through increased sales of high-efficiency products (Note 1): -60,000 tCO<sub>2</sub>/year reduction</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions during use by customers -54,000 tCO<sub>2</sub>/year</li> </ul>	△
	E-Service (Installation & Repair) <ul style="list-style-type: none"> <li>Provision of information on DiE products               <ul style="list-style-type: none"> <li>Showcasing and raising of awareness of products at exhibitions</li> <li>Production and distribution of catalogs, leaflets, and pamphlets</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Products exhibited and awareness of them raised at exhibitions in Japan and other countries</li> <li>Catalogs, leaflets, and pamphlets produced and distributed</li> </ul>	○
E-Products (Product Development)	<ul style="list-style-type: none"> <li>Prevention of global warming               <ul style="list-style-type: none"> <li>Development of high-efficiency appliances</li> <li>Reduction of standby electricity consumption</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>High-efficiency appliances developed               <ul style="list-style-type: none"> <li>Gas water heater for overseas markets</li> </ul> </li> <li>Standby electricity consumption reduced               <ul style="list-style-type: none"> <li>Gas bath water heater</li> <li>Forced flue heater</li> </ul> </li> </ul>	○
	<ul style="list-style-type: none"> <li>Prevention of atmospheric pollution               <ul style="list-style-type: none"> <li>Continued development of low-NOx water heaters</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Low NOx water heaters developed               <ul style="list-style-type: none"> <li>Gas water/space heat source</li> <li>Gas bath water heater</li> <li>Gas water heater</li> </ul> </li> </ul>	○
	<ul style="list-style-type: none"> <li>Resource conservation and recycling               <ul style="list-style-type: none"> <li>Continued product assessment</li> <li>Resource conservation through weight- and water-saving measures</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Products assessed</li> <li>Lighter products developed               <ul style="list-style-type: none"> <li>Hybrid water/space heater system</li> <li>Gas water/space heat source</li> <li>Bathroom heater</li> <li>Fan heater</li> </ul> </li> <li>Water-saving products developed               <ul style="list-style-type: none"> <li>Dishwasher/dryer</li> </ul> </li> <li>Packaging simplified</li> </ul>	○
E-Procurement	<ul style="list-style-type: none"> <li>Green product development and green procurement management</li> </ul>	<ul style="list-style-type: none"> <li>Materials procured and used following E-Procurement Standards</li> <li>Infrastructure for managing chemical substances developed and collaboration with suppliers strengthened</li> </ul>	○
E-Mind (Employees)	<ul style="list-style-type: none"> <li>Disclosure of environmental information               <ul style="list-style-type: none"> <li>Publication of fiscal 2016 CSR Report</li> <li>Disclosure of environmental information on website</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Fiscal 2016 CSR Report published (October)</li> <li>Environmental information published on website (October)</li> </ul>	○
	<ul style="list-style-type: none"> <li>Training organized in accordance with company and plant/office-level annual plans</li> </ul>	<ul style="list-style-type: none"> <li>Internal auditors trained, etc.</li> </ul>	○
E-Factories (Production) (Note 2)	<ul style="list-style-type: none"> <li>Reduction of CO<sub>2</sub> emission intensity At least -6% relative to fiscal 2010</li> </ul>	<ul style="list-style-type: none"> <li>Reduced by 24% from fiscal 2010</li> </ul>	○
	<ul style="list-style-type: none"> <li>Maintenance of zero emissions (recycling rate of 99.5%+)</li> <li>Reduction of waste emission intensity At least -5% relative to fiscal 2011</li> </ul>	<ul style="list-style-type: none"> <li>Zero emissions maintained and improved:</li> <li>At least -17% relative to fiscal 2011</li> </ul>	○
	<ul style="list-style-type: none"> <li>Reduction of water consumption intensity At least -5% relative to fiscal 2011</li> </ul>	<ul style="list-style-type: none"> <li>At least -25% relative to fiscal 2011</li> </ul>	○
	<ul style="list-style-type: none"> <li>Pollution control (Note 3)               <ul style="list-style-type: none"> <li>Reduction of hazardous chemical usage intensity At least -5% relative to fiscal 2011</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>At least -21% relative to fiscal 2011</li> </ul>	○
E-Offices	<ul style="list-style-type: none"> <li>Maintenance of office supplies and equipment green purchasing rate of 91%+</li> </ul>	<ul style="list-style-type: none"> <li>Green purchasing rate: 95.4% (based on value)</li> </ul>	○

(Note 1) High-efficiency products = hybrid water/space heaters, Eco-JOES, etc.

(Note 2) Intensity = load per standard unit defined by Rinnai (target reduction of at least 1% per annum)

(Note 3) Hazardous chemicals = Class I designated chemical substances as defined by the PRTR Act

# "7E Strategic Initiatives" Environmental Action Plan and Fiscal 2017 Targets

Divisions and group companies working together on 7E Strategic Initiatives to take environmental performance to the next level

Scope: Rinnai Corporation

Field of Activity	"7E Strategic Initiatives" Environmental Action Plan (fiscal 2016- fiscal 2018)	Fiscal 2017 Targets
E-Marketing (Sales)	<ul style="list-style-type: none"> <li>Contribution to 1,600,000 tCO<sub>2</sub> reduction in CO<sub>2</sub> emissions in water heater segment by 2020 through increased sales of high-efficiency products (Note 1)</li> </ul>	<ul style="list-style-type: none"> <li>Contribution to reduction of CO<sub>2</sub> emissions in water heater segment: 1,200,000 tCO<sub>2</sub>/year</li> </ul>
	E-Service (Installation & Repair)	<ul style="list-style-type: none"> <li>Provision of information on DfE products via channels including exhibitions, catalogs, leaflets, and pamphlets</li> </ul>
E-Products (Product Development)	<ul style="list-style-type: none"> <li>Prevention of global warming Action to develop high-efficiency appliances using condensing technology and reduce electricity consumption during standby and use, and continued development of energy-saving "front-runner" products</li> <li>Development of high-efficiency appliances using condensing technology</li> <li>Action to reduce electricity consumption during standby and use</li> </ul>	<ul style="list-style-type: none"> <li>Development of high-efficiency water heaters for overseas markets</li> <li>Reduction of standby electricity consumption                             <ul style="list-style-type: none"> <li>Clothes dryers for overseas markets</li> <li>Gas water/space heat source</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Energy conservation and recycling Energy conservation by making products and parts lighter and more compact, etc. and continued development of recycling-friendly products</li> </ul>	<ul style="list-style-type: none"> <li>Product assessment (of all new products)</li> <li>Development of lighter products                             <ul style="list-style-type: none"> <li>Tabletop gas stove for overseas markets</li> <li>Gas water/space heat source</li> </ul> </li> <li>Development of water-saving appliances                             <ul style="list-style-type: none"> <li>Dishwasher/dryer</li> </ul> </li> <li>Simplification of packaging</li> </ul>
E-Procurement	<ul style="list-style-type: none"> <li>Collaboration with suppliers and group companies to procure environmentally friendly parts (resource/energy saving, recycling, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Development of green products (promotion of use of materials in accordance with E-Procurement Standards)</li> <li>Maintenance and reinforcement of green procurement management (chemicals management)</li> <li>Promotion of measures to monitor suppliers' CO<sub>2</sub> emissions</li> </ul>
E-Mind (Employees)	<ul style="list-style-type: none"> <li>Disclosure of environmental information Disclosure of environmental information on products, environmental activities, etc. via CSR Report and website</li> </ul>	<ul style="list-style-type: none"> <li>Publication of Fiscal 2017 CSR Report</li> <li>Disclosure of environmental information on website</li> </ul>
	<ul style="list-style-type: none"> <li>Environmental training and awareness raising Active environmental training and awareness-raising activities targeted at employees, and continued raising of environmental awareness</li> </ul>	<ul style="list-style-type: none"> <li>Promotion of various training activities in accordance with company-wide and plant/office-level annual plans</li> </ul>
E-Factories (Production) (Note 2)	<ul style="list-style-type: none"> <li>Reduction of CO<sub>2</sub> emission intensity At least -8% relative to fiscal 2010 by fiscal 2018</li> </ul>	<ul style="list-style-type: none"> <li>At least -7% relative to fiscal 2010</li> </ul>
	<ul style="list-style-type: none"> <li>Maintenance of zero emissions (recycling rate of 99.5%+)</li> <li>Reduction of waste emission intensity At least -7% relative to fiscal 2011 by fiscal 2018</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance and improvement of zero emissions</li> <li>At least -6% relative to fiscal 2011</li> </ul>
	<ul style="list-style-type: none"> <li>Reduction of water consumption intensity At least -7% relative to fiscal 2011 by fiscal 2018</li> </ul>	<ul style="list-style-type: none"> <li>At least -6% relative to fiscal 2011</li> </ul>
	<ul style="list-style-type: none"> <li>Reduction of hazardous chemical (Note 3) use intensity At least -6% relative to fiscal 2011 by fiscal 2017</li> </ul>	<ul style="list-style-type: none"> <li>At least -6% relative to fiscal 2011</li> </ul>
E-Offices (Offices)	<ul style="list-style-type: none"> <li>Green procurement rate of 91%+ (maintenance) (including expanded product categories)</li> </ul>	<ul style="list-style-type: none"> <li>Green purchasing rate of 91%+ including expanded product categories</li> </ul>

(Note 1) In the E-Marketing category, "contribution to reduction of CO<sub>2</sub> emissions by products" has been adopted as a new performance indicator to accelerate energy conservation in the home, and action will be taken to achieve the targets shown by 2020.

\*High-efficiency products = hybrid water/space heaters, Eco-JOES, etc.

(Note 2) Intensity = load per standard unit defined by Rinnai (target reduction of at least 1% per annum)

(Note 3) Hazardous chemicals = Class I designated chemical substances as defined by the PRTR Act

## Environmental Accounting

To realize continuous growth while promoting environmental management, we must accurately quantify the cost of environmental protection and the results achieved. We must also ensure that our approaches are effective through appropriate allocation of management resources. We utilize guidelines set by Japan's Ministry of the Environment as the tools in executing these tasks.

Scope of accounting: Rinnai Corporation  
Period of accounting: April 1, 2015 to March 31, 2016

### Cost of Environmental Protection

(Unit: Ten thousand yen)

Breakdown of Costs for Environmental Protection		Key Activities	Costs
In the scope of operations	Pollution prevention	Mainly efforts to prevent air and water pollution	3,377
	Environmental protection	Mainly efforts to save energy	1,242
	Resource recycling	Recycling as well as treatment and disposal of industrial waste	3,833
Upstream/downstream		Collection/recycling and volume/weight reduction of materials such as product packaging	897
Management activities		Mainly monitoring and surveillance of environmental impact	9,558
Research and development		R&D on environmentally conscious products addressing energy- and resource-saving features and reduction and/or elimination of hazardous chemical substances	108,941
Community efforts		Mainly community activities and beautification/greening at places of business and surrounding areas	212
Total			128,060

(Unit: Ten thousand yen)

	Item		Content	Environmental Impact Reduction
Environmental Protection Effect	On-site results		Saving energy reduced greenhouse gases	331 t-CO <sub>2</sub> /year
	Upstream/downstream results	Environmental impact reduction through use of products	Reduction of NOx with products with low NOx emissions	68 t/year
			High-efficiency products reduced CO <sub>2</sub>	60,914 t-CO <sub>2</sub> /year

(Unit: Ten thousand yen)

Economic Effects Accompanying Environmental Protection Measures	Item	Economic Effect
	Costs cut through energy-savings and waste reduction	1,307

### About Environmental Protection Costs

- R&D costs are associated with the development of environment-related, leading-edge technologies and products for the heat-energy appliance market as well as products that, based on Rinnai's standards, mark an improvement over existing products.
- Costs covering other applications, which include non-environment-oriented activities, are apportioned according to internal rules.
- The calculations above exclude depreciation and amortization expense.

### About Success of Environmental Protection Efforts

- The success of environmental protection efforts through energy-saving efforts and waste reduction is not a change in overall volume but rather the assumed effect achieved through associated activities.
- The success of environmental protection efforts through the use of products with the capacity to reduce environmental impact is not an industry result but rather a year-on-year comparison based on Rinnai's sales of such products. We determined these estimates based on annual volume over normal usage.

### Economic Effect

- The economic effects achieved through energy-savings and waste reduction are not increases or decreases in overall costs but rather an effective amount regarded for its economic benefit through the associated activities.
- Deemed effects, such as avoiding risks and enhanced product sales, fall outside the scope of economic effects because the standard for evaluation is too vague.
- External economic effects, derived mainly through products that reduce environmental impact, also fall outside the scope of economic effects because the results are too difficult to pinpoint.



## Chronology of Environmental Activities at Rinnai

1993	March	Drafted Environmental Preservation Action Plan; established Environment Committee
	December	Won prize at 4th Energy Conservation Vanguard 21 for gas-blast type high heat griller RGM-4, 6, 8
1994	July	Market debut: low-NOx burner built-in water heater (NOx at less than 60ppm)
1996	March	Won top prize at 1st Eco-Design Awards, sponsored by Tokyo Gas, Osaka Gas and Toho Gas for water heater, fan heater and small hot-water heater
1997	March	Won special prize at 2nd Eco Design Awards for tabletop cooking stove
	June	Market debut: absorption-type gas air-conditioner (non-CFC)
	October	Acquired ISO 14001 certification at Oguchi factory
	December	Won prize at 8th Energy Conservation Vanguard 21 for tabletop oven RSBN-096
1998	April	Won top prize for gas clothes dryer and special awards for small hot-water heater and for absorption-type gas air-condition at 3rd Eco-Design Awards
	October	Market debut: <i>Yukko V</i> Series, featuring no styrene packing, low stand-by power consumption and low NOx emissions
1999	July	Established Environment Division
	September	Market debut: Ecomax burner and Eco burner-equipped gas cooking stove
	October	Market debut: condensing water heater boasting 95% heat efficiency and NOx emissions under 30ppm
2000	February	Won Minister of Economy, Trade and Industry Award for condensing water heater at ministry's 10th Energy Conservation Awards
	May	Drafted Rinnai Environmental Action Principles
	August	Published inaugural issue of Environmental Report
2001	January	Won Chunichi Newspaper Prize portion of Chunichi Industrial Technology Awards for condensing water heater
	June	Won Technology Grand Award from Japan Gas Association for condensing water heater
2003	June	Won Technology Award from Japan Gas Association for development of glass-top gas cooking stove
	October	Won Electric Equipment Packaging Category Award in the Good Packaging division at Japan Packaging Contest 2003 for built-in 75cm-wide glass-top gas cooking stove
2004	October	Won Logistics Prize at Japan Packaging Contest 2004 for bathroom heater/dryer
2005	June	Won Technology Grand Award from Japan Gas Association for development of latent heat recovery high-efficiency hot water/heating unit
	September	Participated in Team Minus 6%, a national movement to prevent global warming
2006	October	Won Electric Equipment Packaging Category Award in the Good Packaging division at Japan Packaging Contest 2006 for gas fan heater
2008	September	Gas tankless water heater sold in the United States captured 2008 Super Nova Star Award

		(Stars of Energy Efficiency) in the United States from the Alliance to Save Energy
	October	Won Electric Equipment Packaging Category Award in the Good Packaging division at Japan Packaging Contest 2008 for gas fan heater
<b>2009</b>	February	Market debut: <i>Eco-Jozu</i> hot-water/heating unit RVD-E Series
<b>2010</b>	January	Market debut: <i>Eco-Jozu</i> water heater with bath-filling systems RUF-E Series Participated in Challenge 25 campaign, a national movement to prevent global warming
	February	Won Silver Award at Aichi Environmental Award 2010 sponsored by Aichi Prefecture for global promotion of high-efficiency combustion appliances and systems, including latent heat recovery water heaters
<b>2011</b>	April	Market debut: <i>Eco One</i> hybrid water heater with heating systems for colder regions
	May	Won Technology Grand Award from Japan Gas Association for development of gas hot-water system <i>SOLAMO</i> to use solar heat
	June	Won Aichi Invention Award sponsored by Aichi Invention Association for development of low-NOx burners for household gas water heaters
	December	Won the Resource Recycling Manufacturing Research Group Chairman's Award at the IMS2011 16th Resource Recycling Manufacturing Symposium for energy saving measures concerning enamel combustion furnaces
<b>2012</b>	June	Won Technology Award from Japan Gas Association for " <i>kaecco</i> " <i>Eco-Jozu</i> combi boiler designed for existing apartments (put in existing PS) Won Aichi Invention Encouragement Award sponsored by Aichi Invention Association for <i>A-Style</i> Gas fan heaters
	October	Won Large and Heavy Good Packaging Prize at Japan Packaging Contest 2012 for <i>Eco One</i> hybrid water heater with heating systems
	December	Won the Resource Recycling Manufacturing Research Group Chairman's Award at the IMS2012 17th Resource Recycling Manufacturing Symposium for our development of home-use hybrid water heater with heating systems
<b>2013</b>	June	Won Technology Award from Japan Gas Association for " <i>Jikabi-No-Takumi</i> " new gas rice cooker, and new <i>Delicia</i> built-in stove Won Aichi Invention Encouragement Award sponsored by Aichi Invention Association for Dishwasher with baking soda wash mode
	December	Won the Chairman Award of Nagoya Industries Promotion Corporation at the IMS2013 18th Resource Recycling Manufacturing Symposium for improvement of logistic efficiency and reduction of waste disposal by reviewing of packing production process
<b>2014</b>	January	Won top energy conservation award at METI Award in the fiscal 2013 Energy Conservation Awards for <i>Eco One</i> hybrid water heater with heating systems
	June	Won Aichi Invention Award sponsored by Aichi Invention Association for development of fire power adjustments for gas stoves Won Technology Grand Award for <i>Jikabi-No-Takumi</i> gas rice cooker, and won Technology Award for Speedy <i>Kanta-Kun</i> gas cloth dryer from Japan Gas Association
	August	Won Large and Heavy Good Packaging Prize at Japan Packaging Contest 2014 for returnable package
	December	Won 2014 Energy Saving and New Energy Grand Prize in <i>Kitaguni</i> (northern area in Japan) for <i>Eco One</i> hybrid water heater with heating systems for Hokkaido region Won the Chunichi Shimbun Award at the IMS2014 19th Resource Recycling

		Manufacturing Symposium for our development of an eco-friendly water heater with bath-filling systems
<b>2015</b>	April	Market debut: <i>Eco One</i> third generation hybrid water heater with heating systems
	June	Won Technology Award from Japan Gas Association for gas cord cover Won Aichi Invention Award sponsored from Aichi Invention Association for two burners for stoves in a vertical double stages
	November	Won Good Design Award 2015 for <i>Eco One</i> hybrid water heater with heating systems Won Invention Encouragement Award at the Chubu Region Innovation Award for gas stove burners above and below
<b>2016</b>	March	Won With Gas Grand Prize by Osaka Gas for <i>LiSSe</i> Gas stove cooker with <i>Si</i> sensor
	May	Acquired a certificate of a low-carbon building as Japan's first residential complex in which all units have <i>ECO ONE</i> and floor heating
	July	Participated in <i>COOL CHOICE</i> campaign, a new national movement to global climatic changes and reducing greenhouse effect gas
	August	Market debut: gas fun heater, power consumption: -47%, the lightest in the industry: 7.9kg (compared with the Company's current model: -16%) Won Good Packaging Prize at Japan Packaging Contest 2014 for a bottom tray with parts box for important attachments

## Scope of Calculation for Environmental Data

Target period: From April 1, 2015 to March 31, 2016

Disclosed page		Data name	Scope of calculation
Environmentally Conscious <i>Monozukuri</i>	Impact on the Environment of the Rinnai Group	-	<ul style="list-style-type: none"> <li>• Rinnai Corporation and its consolidated subsidiaries [Product development and manufacturing]</li> <li>• Rinnai Corporation [Procurement, sales, logistics, product usage, disposal]</li> </ul>
	Supply Chain CO <sub>2</sub> Emissions	Emissions by Scope	<ul style="list-style-type: none"> <li>• Rinnai Corporation and its consolidated subsidiaries [Scope 1 and 2]</li> <li>• Rinnai Corporation [Scope 3]</li> </ul>
	Efforts to Prevent Global Warming, Action on Waste and Water Resources, Efforts to Prevent Pollution	Energy volume and consumption rate <ul style="list-style-type: none"> <li>• CO<sub>2</sub> emission</li> <li>• Waste emission</li> <li>• Water consumption</li> <li>• Hazardous chemical usage</li> </ul>	Rinnai Corporation
	Improvements to Logistics	Shipping volume and CO <sub>2</sub> emission	Rinnai Corporation
"7E Strategic Initiatives" Environmental Action Plan	"7E Strategic Initiatives" Environmental Action Plan and Performance	<E-Marketing> <ul style="list-style-type: none"> <li>• Reduction in CO<sub>2</sub> emissions, etc.</li> </ul> <E-Factories> <ul style="list-style-type: none"> <li>• CO<sub>2</sub> emission intensity</li> <li>• Waste emission intensity</li> <li>• Water consumption intensity</li> <li>• Hazardous chemical usage intensity</li> </ul> <E-Offices> <ul style="list-style-type: none"> <li>• Green purchasing rate</li> </ul>	Rinnai Corporation
Environmental Accounting	-	Cost of Environmental Protection <ul style="list-style-type: none"> <li>• Pollution prevention cost</li> <li>• Environmental protection cost</li> <li>• Resource recycling cost</li> <li>• Upstream/downstream cost</li> <li>• Management activities cost</li> <li>• Research and development cost</li> <li>• Community efforts</li> <li>• Responding cost to environmental damage</li> <li>• Other cost</li> </ul> Environmental Protection Effect <ul style="list-style-type: none"> <li>• On-site results</li> <li>• Upstream/downstream results</li> </ul> Economic Effects Accompanying Environmental Protection Measures	Rinnai Corporation <ul style="list-style-type: none"> <li>• Oguchi Factory</li> <li>• Seto Factory</li> <li>• Asahi Factory</li> </ul> • Rinnai Parts Center <ul style="list-style-type: none"> <li>• Production Engineering Division</li> <li>• Research &amp; Development Headquarters</li> <li>• Environment Division</li> </ul>

<p>Reports by main office</p>	<p>Rinnai Corporation</p> <ul style="list-style-type: none"> <li>• Oguchi Factory</li> <li>• Seto Factory</li> <li>• Asahi Factory</li> </ul> <p>Consolidated subsidiaries (Main offices in Japan)</p> <ul style="list-style-type: none"> <li>• Yanagisawa Manufacturing Co., Ltd.</li> <li>• Rinnai Technica Co., Ltd.</li> <li>• RB Controls Co., Ltd.</li> <li>• Japan Ceramics Co., Ltd.</li> <li>• Rinnai Precision Co., Ltd.</li> <li>• RT Engineering Co., Ltd.</li> <li>• Noto Tech Co., Ltd.</li> <li>• Techno Parts Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>• Energy use</li> <li>• Emissions into the air</li> <li>• Discharge of waste</li> <li>• Substances subject to the PRTR law</li> <li>• Air</li> <li>• Water discharge</li> </ul>	<ul style="list-style-type: none"> <li>• Rinnai Corporation and its domestic consolidated subsidiaries</li> </ul>
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Initiatives for safety and peace of mind

## Creating Safe, Reliable, Comfortable, Healthy Living Spaces Targeting “Temperature-barrier-free Homes”

When it comes to heating the home, most Japanese houses have room-by-room heating as opposed to the Western concept of “heating the entire house.” However, regional and seasonal factors lead to major temperature differences between rooms, giving rise to issues related to comfort and health.

Nevertheless, it is possible to make even Japanese homes “temperature barrier free” by eliminating temperature differences between rooms. This can be done by combining gas water heaters with heating systems and hot-water-based terminals. Rinnai is promoting the spread of “temperature-barrier-free homes” in Japan through the development, manufacture, and sale of high-efficiency gas water heaters with heating systems and peripheral equipment.

### Launch of High-Efficiency Gas Water Heater with Heating System: Most Compact and Lightest in the Industry and Compatible with Varying Installation Requirements

A high-efficiency gas water heater with heating system can deliver hot water to the kitchen and bathroom, automatically fill a bathtub, reheat bathwater, and provide hot-water-based room heating—all from a single unit. Rinnai has been selling high-efficiency gas water heaters with heating systems for some time. Our RVD-E Series, launched in July 2015, is the lightest and most compact in the industry\*, and is attracting attention for its flexibility with respect to varying installation requirements. We will continue promoting the spread of high-efficiency gas water heaters with heating systems and bathroom heater/dryers (for warming up cold bathrooms), as well as floor heaters (that warm the room upward from the feet), room heaters, and other hot-water-based equipment. Our aim is to help create comfortable, healthy living environments.

\* As of June 2015 (based on Rinnai's investigation)



#### Bathroom

This high-efficiency gas water heater with heating system features a bathwater reheating function, so you can enjoy a warm bath at any time. By also installing a bathroom heater/dryer, you can eliminate temperature difference with other rooms and thus reduce the impact on your body.



#### Living room

The floor heater uses radiant heat to warm the entire room without polluting the air. Since it is windless heating, moreover, you don't have to worry about stirring up dust or your skin drying out.



#### Kids' room and bedroom

For children's rooms and bedrooms, we recommend gas hot water-based room heaters, which quickly heat the entire room from a floor-level temperature of around 70 degrees. Since gas is not combusted in the room, it can be used with peace of mind, even in small children's rooms.



Eco Jozu gas water heater  
with heating system  
Compact type  
RVD-E2405AW2-1

#### Easier to install

In addition to making the heat source more compact, we developed a built-in housing for the thermal valve header, which is necessary for connecting with the water terminal. The header is therefore built into the main unit, which improves ease of installation.

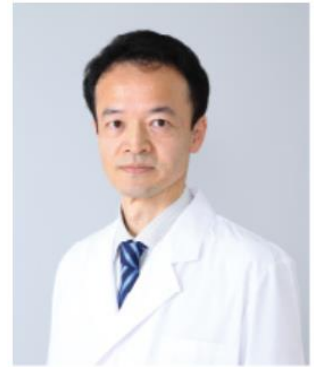


## Rinnai Has a Mission: To Convey Japan's Bathing Culture to the World

In the Western world, “bathing” generally means taking a shower. There are practically no nations or regions that have the “soaking in the bath” culture that is normal in Japan. Immersing in the tub up to the shoulders greatly helps with fatigue recovery. The pressure of the water improves blood flow in the body’s bloated areas, and the buoyancy relieves muscles tension and promotes relaxation. When the autonomic nervous system is disturbed by stress, moreover, soaking is said to provide relief by acting on the parasympathetic nervous system.

However, soaking in the bath also comes with risk. We need to be most mindful of “heat shock.” Major air temperature differences between the living room and dressing room/bathroom place a burden on the body. This can cause blood pressure to rise sharply, potentially resulting in a stroke, loss of consciousness, or even drowning. The trick is to douse with warm water first to prevent blood pressure increases, or warm up the air temperature of the dressing room and bathroom. Others include keeping the bathwater temperature at an optimal level (40°C) and avoiding soaking for long periods (10–15 minutes is ideal).

We believe there is latitude for water heating equipment to become more advanced in the future. It would be nice to incorporate artificial intelligence to provide advice on the best water temperature considering the bather’s physical condition, for example, or let the bather know when it’s time to get out. I want this wonderful aspect of Japanese culture—soaking in the bath—to spread across the world.



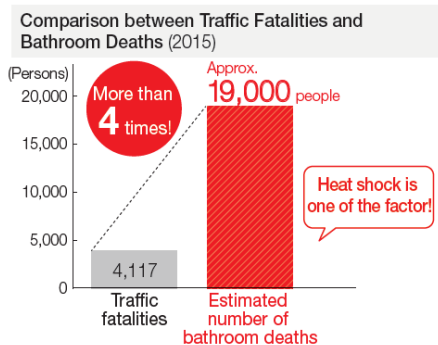
Shinya Hayasaka,  
Spa Therapy Specialist, Human  
Sciences Professor, Tokyo City  
University

## Bathroom Heater/Dryer: Helping Suppress Heat Shock

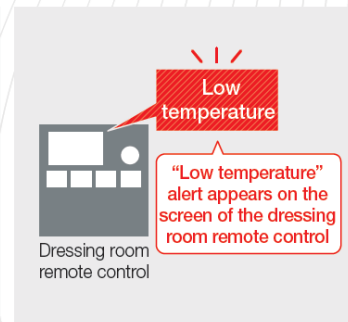
Around 19,000 people in Japan die each year while bathing. A major cause is heat shock due to temperature differences between the living room, dressing room, and bathroom. This can result in myocardial infarction and cerebral vascular disorders, leading to loss of life. Such problems or temporary loss of consciousness can cause people to keel over and sometimes even drown in the bathtub.

Installing a bathroom heater/dryer, which allows the bathroom to warm up, is an effective way to prevent heat shock. Our latest bathroom heater/dryer, launched in April 2016, has an automatic interlocking function\*, which automatically warms the bathroom if its temperature falls below 15° when while the bathtub is being filled. A “low temperature” alert also appears on the remote-control screen when the bathroom temperature falls below 15°. We recommend the use of bathroom heaters.

\* Available only on heat source equipment fitted with automatic interlocking function in combination with remote control.



Sources: Public release by the Consumer Affairs Agency on January 4, 2016, entitled “Please pay attention to bathroom accidents among the elderly, which occur frequently in winter!”  
Public release by the National Police Agency on January 4, 2016, entitled “Traffic Fatalities in 2015”



Rinnai will work to reduce the risk of bathroom accidents by promoting the spread of bathroom heater/dryers, which help prevent heat shock, and through educational activities about accident prevention.

# Measures for Quality

## Basic Stance on Quality

Rinnai is focused on manufacturing safe products that provide peace of mind for customers because we view gas appliances in the same way as airplanes. If a problem occurs with either, it could lead to a major accident. Heating appliances such as gas appliances have the capability of causing burns, carbon monoxide poisoning, a fire, explosion and more if there is even a slight defect or problem or if they are mishandled. In the worst case scenario, an accident may even lead to death. In the past tabletop stoves have been the cause of fires and more recently deaths caused by the rapid change in temperature (“heat shock”) in the bath tub have become a major problem. There is no way we can maintain sustained growth as a manufacturer unless we fulfill our basic mission as a manufacturer to deliver safe products that provide peace of mind for customers.

In order to not have any defective products go out into the world and prevent any accidents caused by our products, it is necessary for us to ensure our product’s safety and peace of mind from their creation, to their use and ultimate disposal. That is why we are moving forward with our own unique product manufacturing that focuses on safety and peace of mind while proactively teaching consumers how to use our products safely even after the products are in their hands.

Basic Philosophy on Quality	Policy on Quality
"Quality is our destiny"	<b>We provide highly safe products that meet customers' requirements.</b>

### Pursuit of “Zero Defects”

Our basic policy for manufacturing includes “in-house product design,” “in-house development and manufacturing of critical maintenance parts” and “in-house design of production equipment.” The most significant points are the in-house development and in-group production of core heat technologies and critical maintenance parts and the in-house design of production equipment. During the design phase, we not only ensure the safety and peace of mind of our products but also are able to quickly get down to the root cause of a defect or problem to fix it in the event a problem does occur. We are also making an effort to not produce any defects (zero defects) in all phases from manufacturing (development and production), to the sale, use and after-sales service for products and their ultimate disposal.

When we say quality, that doesn’t simply mean no defects or problems. We believe we can provide more comfortable lifestyles for our customers through heating appliances such as gas appliances and this is another facet of the quality we offer.

### New environmental testing facility: Developing products suited to living environments across all parts of the nation

Gas appliances are expected to fulfill three roles: (1) Be used safely from time of purchase until usefulness has ended; (2) Provide certain functions regardless of installation environment; and (3) Function properly until its job has ended. To investigate whether or not its products meet these criteria, the Rinnai Group performs numerous performance assessments to identify areas for improvement and assure overall reliability.

In July 2015, we established a new environmental testing facility within our Technology Center. In the facility, we have built a comprehensive environmental testing chamber that replicates various climatic conditions, from low to high temperatures. We are even building a detached house inside the chamber so we can determine the impact of external temperature fluctuations on our gas appliances. We can also make modifications in such areas as insulation materials, wall thickness, and room size, enabling us to make more meticulous evaluations.



Environmental testing facility

## Product Development in Pursuit of Safety and Peace of Mind

There are a variety of dangerous events that can occur with gas appliances such as gas leaks, incomplete combustion, burns, fires, etc. The mission given to development divisions is how well they can eliminate the causes of these dangers and create a safe gas appliance. Up until now our appliances have been equipped with a number of different safety devices. Examples would be a flame-failure device and a temperature sensor for gas tabletop stoves to prevent fires when cooking tempura, and a CO sensor equipped to water heaters with special installation conditions.

Design divisions ensure from the design phase that safety is incorporated into the product by making sure the safety functions operate correctly in the use environment, the safety performance is maintained throughout the life of the product, and the fail-safe features to safely stop the appliance in the event it not working correctly based on the concept of proactive prevention of unforeseen accidents so that the safety features are maintained from first use until the end of the products life. Design divisions also conduct various analysis using simulations and tests using strict evaluation standards and after the results are confirmed during a meeting the structure for moving on to the next set is established. This is the method currently being used to eliminate all defects that occur during the design phase. We are also actively sharing product development information and training employees on safe product development by holding quality meetings to never reproduce past defects again and holding study sessions to convey past know-how to the next generation of employees.

## Manufacturing Technology which Assures High Quality

Rinnai's basic philosophy regarding production technology is to produce a sound product instantaneously after the fabrication phase. We utilize an in-house completion model to manufacture quality products.

Manufacturing divisions are involved from the product planning and design phases to utilize their wealth of know-how related to fabrication and manufacturing to ensure that development from our in-house technology and production equipment achieves the intended performance, the product is safe and provides peace of mind for customers and the product is designed to be easy to manufacture for employees. Production starts after production processes are carefully established and reviewed with development divisions. The production equipment is designed and manufactured within the company with the 5M in mind (Man, Machine, Material, Method and Measurement). We work to prevent defects that are caused by inadequate equipment. The manufacturing scene is currently putting effort into improvement activities such as QC and improvement proposals with the aim of creating a strong manufacturing scene. We aim to create a work environment than is better each day by finding excess and waste in manufacturing processes and solving them one by one through the continuation of steady efforts. We believe manufacturing starts with creating great people and we place a focus on developing talented individuals who can succeed the concepts, skills and technologies of our manufacturing process.

Meanwhile, manufacturing at overseas locations must take into account the local market in that country or region. Japan's level of quality is one of the highest in the world and is highly thought of abroad. For example, when the production of gas cocks at Rinnai Indonesia started, local staff visited Japan to thoroughly learn our philosophy behind manufacturing. They prepared the production line with Japanese staff members and launched their own production line in Indonesia. We will continue to build a high quality manufacturing system that is safe and provides peace of mind for our customers both in Japan and abroad based on our philosophy that "Quality is our destiny."

### "Kodokan" training dojo established to provide quality-related education through hands-on experience

In 2009, we established a training dojo called Kodokan at our Oguchi Factory, with the aim of eliminating product defects at the assembly stages. Employees about to engage in new tasks handle real products, equipment, and jigs\* and learn quality-related educational rules in an easy-to-understand manner while also practicing their screw-tightening skills. In addition to new staff, we also subject experienced employees to repeated basic and applied education in order to maintain and improve their quality-related awareness.

\* Jig: Device used to guide a tool to the work position during processing/assembly



Kodokan



Koji Ito,  
No. 2 Manufacturing Dept.,  
Oguchi Factory

**Understanding of the importance of rules;  
fostering a commitment to quality**

We expand in-house manufacture to promote appropriate processing method (processing technology, quality enhancement) to newly designed key units and components. Based on the integrated production system from press work to processing and assembly, we tackle with the daily improvement efforts to reduce the “carrying, waiting time, inventory” loss time, with awareness of “various loss time produces energy loss”. At the production of *ECO JOZU* highly efficient water heaters, we changed the consolidation method of the second heat exchanger, which recovers an exhaust heat efficiently, from welding method to caulking method.

**Making Improvements with Our Suppliers**

See page 94 “Communication with Our Business Partners”

**Invigorating Quality Improvement Activities**

We operate a system of small-group quality control circles as a means of raising every single employee’s problem-solving skills and stimulating groups as a whole. These are being actively promoted at group companies too, and a group-wide “QC Circle Convention” is held every September to recognize the best circles.



Company-wide QC circle conference



# Consumer Safety

## Making Possible Safe and Healthy Lifestyles

### Tabletop with Si Temperature Sensors Prevent Fires

Tabletop gas stoves are the source of most fires that occur in the home, and it is said that in Japan many such fires are caused when using oil to deep fry the Japanese dish tempura. Kitchen fires caused by tempura oil sometimes spread to other rooms. They not only destroy precious assets, but in a worse-case scenario they can lead to fatalities.

To help prevent kitchen fires in Japan, it has been legally mandatory for all burners on gas tabletop stoves made after October 2008 to be fitted with safety sensors. These gas tabletop stoves with sensors are called “Si sensor stoves.”



As a manufacturer with a large share of the gas stove market, Rinnai believes it has fulfilled its responsibility by promoting the widespread adoption of such products that offer enhanced safety. Because of the long replacement cycle for gas stoves, many customers are unfamiliar with the safety provided by Si sensor stoves. To encourage customers to consider replacement, we provide information on the safety of Si sensor stoves through various means, including exhibitions, catalogs, and the Rinnai website.



Information about Si Sensor on Gas Built-in Hob (stovetops) Catalog

### Website Draws Attention to Safety

With the proliferation of smartphones and tablets, more and more people are connecting to the Internet. For this reason, we provide various information about the safe use of gas appliances via our corporate website.

#### How to restore microcomputer meter after an earthquake

In addition to measuring gas consumption volumes, a microcomputer meter is used to suspend gas supply automatically in the event of strong earthquake of 5° magnitude or higher. Our corporate website describes the steps for correctly restoring the microcomputer meter after such an earthquake.



#### “Product Safety Inspection Month”

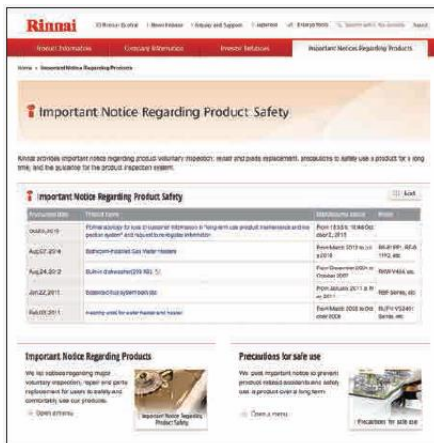
The Minister for Economy, Trade and Industry has designed November of each year as “Product Safety Inspection Month.” Accordingly, Rinnai steps up safety-related educational activities in that month. On our corporate website, we have sections containing information on product recalls, points to note for long-term-use products, correct product usage methods, and the like. In this way, we are working to increase customers’ awareness about safety.



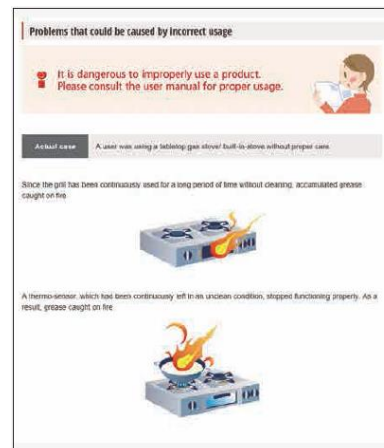
## Disclosure of Information on Safety

### Notice Regarding Product Safety

The wear and deterioration of parts that occurs when products are used for a long time can lead to fires and injuries. Incorrect use is also dangerous as it can cause breakdowns and injuries to users. To ensure safe use by our customers, we label our products and provide information in user manuals to warn about incorrect use and how to avoid accidents arising from careless use. Specific examples are also published on our website, where we provide clear, easy to understand information on how to prevent accidents.



Important Notice Regarding Product Safety



Problems that could be caused by incorrect usage

## Disclosure of Information on Accidents Involving Our Products

In the event of a serious accident involving one of our products, we immediately inform the authorities as required by law. We also actively disclose information directly to customers on our website in order to alert them as soon as possible and keep them appropriately informed in light of the severity and frequency of the type of accident concerned.



Information on Accidents Involving Our Products



# Inquiry Response and Support System

## CS Policy

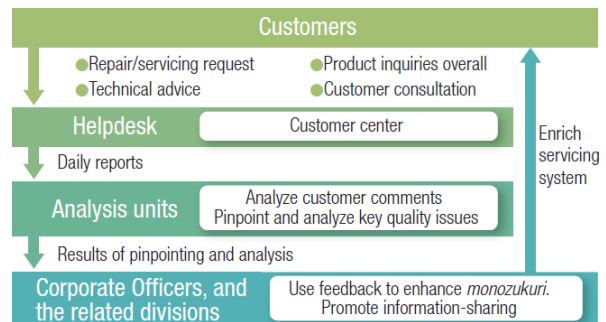
In keeping with our corporate philosophy that “Quality is our destiny,” we aim to respond sincerely, promptly, and appropriately to customer requests and queries, and to provide reliable services that deliver satisfaction and peace of mind to the customer.

### Fundamental Policy

1. We—that is, any department of our Company— identify comments and requests from our customers as our top priority.
2. We understand that customers’ complaints are addressed to the entire Company and the whole organization shall be responsible for them until the cases are closed.
3. We take customers’ comments seriously and share them within the Company to utilize as precious information to improve our products and services.
4. We always abide by laws and regulations and we don’t give in to unreasonable demands.
5. We strictly protect the personal information of our customers by observing related laws, regulations and Rinnai’s Personal Information Protection Regulations.

## Customer Center

We established the Customer Center in an effort to improve customer satisfaction even further, by accepting a range of inquiries, comments and requests, either directly from customers or via channels such as telephone or our website. The numerous invaluable comments we receive are then fed back to the relevant division, so that they can be used to identify and rectify issues, in areas such as product development, quality control, sales and service standards.



We strive to incorporate customer comments into our products and services on a daily basis

The Customer Center handles requests received from customers via our toll-free number, website and other channels. In fiscal 2016, we received approximately 800,000 calls from customers and around 4,714 comments via our website.

In fiscal 2016, we received the following scores based on customer questionnaires.

- Ease of contacting Customer Center via toll-free number      79.0 points
- Politeness of telephone operator                                      83.0 points
- Overall score    81.0points

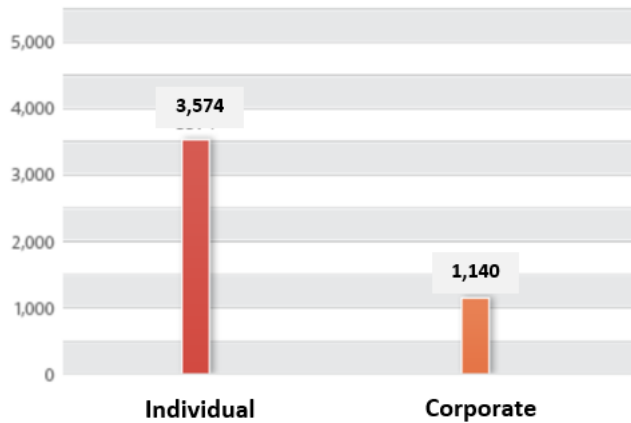
\*We have revised the evaluation categories on questionnaire cards since last year.



Customer center

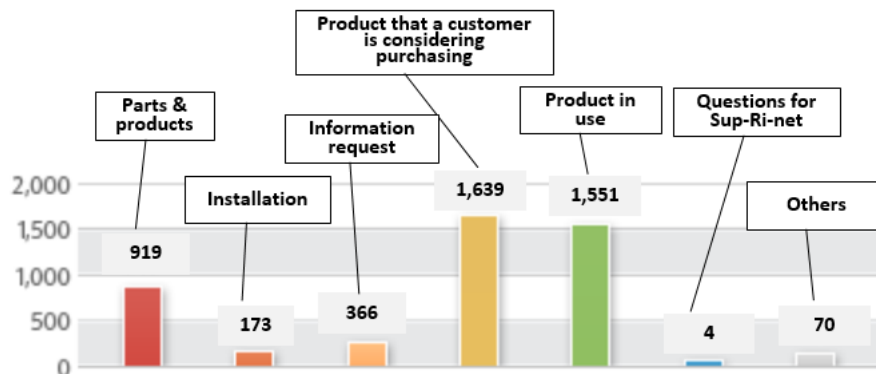
## Our Customers' Comments (Customers' comments and inquiries through our website in fiscal 2016)

### 1. Number of inquiries by customer type



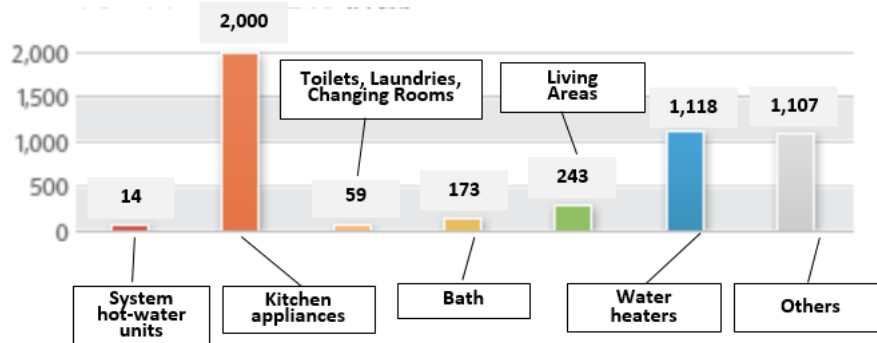
The breakdown of inquiries from customers is 76% from individuals and 24% from companies.

### 2. Number of inquiries by category



There are the three major topics: (1) Product in use: 34.0%, (2) Product that a customer is considering purchasing: 32.9%, (3) Parts & products: 19.3%

### 3. Number of inquiries by product



Many inquiries were kitchen appliances-related.: (1) Kitchen appliances: 42.4%, (2) Water heater and bath-related products: 27.3%

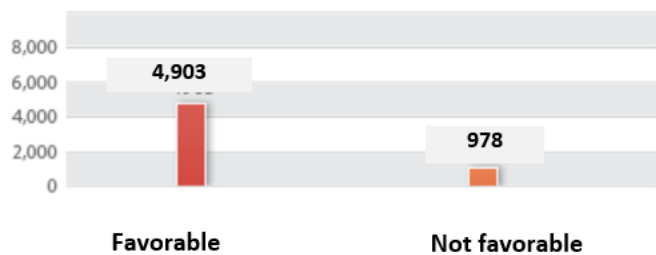
## Enhancement of Online Support

Responding to customers who have told us that they want to be able to troubleshoot some issues for themselves, we have added a Frequently Asked Questions section to our website.



83.3% of users have expressed satisfaction with the content of our FAQs, and the number of visitors accessing the FAQs page is rising constantly. Content will continue to be frequently updated and expanded to further assist our customers.

Evaluation on our inquiry handling

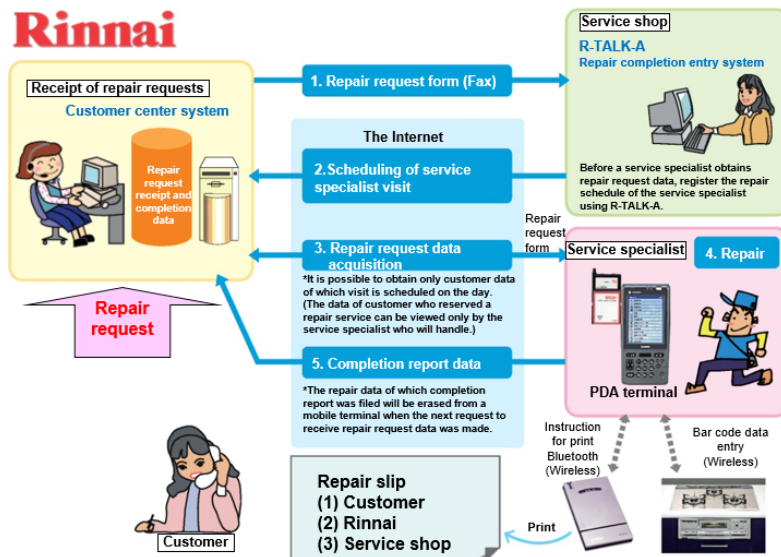


## After-Sales Service

Our after-sales services are geared to delivering peace of mind to users and ensuring everyday comfort for all our customers.

### Speeding Up After-Sales Service

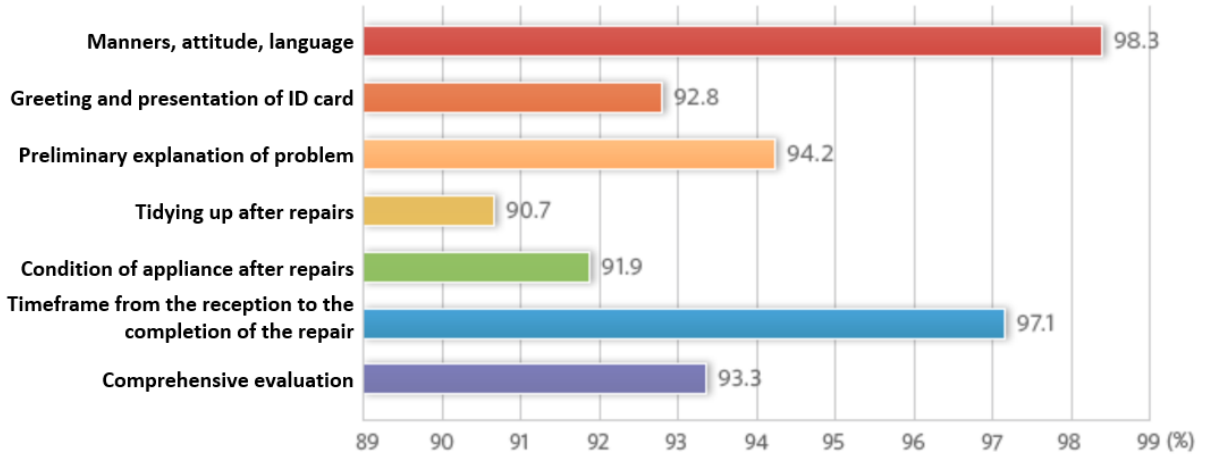
We have around 700 service engineers repairing products across Japan. To ensure minimum disruption to our users, customer service requests are confirmed via mobile terminal and we aim to complete inspections the same day or the day after a service request has been made.



## Evaluating Performance Based on Service Specialist Questionnaire Cards

We place a strong emphasis on customer satisfaction and are committed to meeting customer requests and answering their inquiries precisely, swiftly, and faithfully in order to “deliver safe, reliable, and satisfying service.” When repairs are performed, consumers are asked to fill in “customer feedback questionnaires” to tell us how satisfied they were with the experience, and the results are fed back to the relevant departments. In fiscal 2016, a total of 22,000 questionnaires were completed by consumers, and average satisfaction was 94.4 (out of 100). Satisfaction has been at least 90 every year since 2007.

● Customer satisfaction after repair services



## Supplies of Service Parts

As a rule, we keep gas appliance parts for 5 to 10 years (and in some cases for longer) after production ends. Being able to deliver these parts promptly when needed is essential to good after-sales service and ensuring that customers can get safe, pleasant, and long use out of their purchases.

At the Rinnai Parts Center that stores and supplies parts, the process of picking, packing, and sending out parts is heavily systematized due to the large numbers of parts handled. It is crucial that the right types and numbers of parts be supplied on time. Improvements in quality are pursued in a range of ways, including by ensuring that work is performed in accordance with standard operation manuals that document work and pamphlets that lay down basic rules on quality.

## Inspection and Repair Services

### Inspections Like a Yearly Medical Check-Up for Appliances

#### For a Long-Term Use Without Accidents

In April 2009, Consumer Product Safety Act was revised and a safety inspection system for products in long-term use went into effect.

Some accidents linked to the deterioration of our products over long-term use have been reported. To make customers realize that appliances, like most products, have a particular service life and to encourage customers to have their Rinnai products inspected regularly, we send out the necessary information and extend advice through the Product Inspection Center. These efforts are aimed at preventing unforeseen accidents.

We enhance our maintenance inspection system with our qualified service specialists. In addition, we provide our original services extending a warranty period to three years for the customers who purchased our home-use hot-water unit and completed customer registration.

In April 2011, we also introduced a voluntary inspection system (Safety Inspection) for our outdoor hot-water units, in accordance with the law. This system has been gradually expanded; for instance, indoor hot-water and heating units were added to the subjects of legal inspection in July 2011. Currently, we began putting in place an extended inspection framework in preparation for full-scale inspections in the near future.

### Approach to Relations with Suppliers

Through inspections, we will enhance our customer support services.

#### Five focused points of our fundamental stance

1. Good inspection (Good inspector, good handling, legal knowledge, and inspection report)
2. Look through our customer's eyes (Usage of aged products, and reflection of customers' comments on products)
3. Customer satisfaction (Appropriate and caring information offering)
4. Proposal to assure peace of mind (Proposal to bring peace of mind before a product breaks, not after it has broken)
5. Trust building (Showing our appreciation for our customers' long patronage)

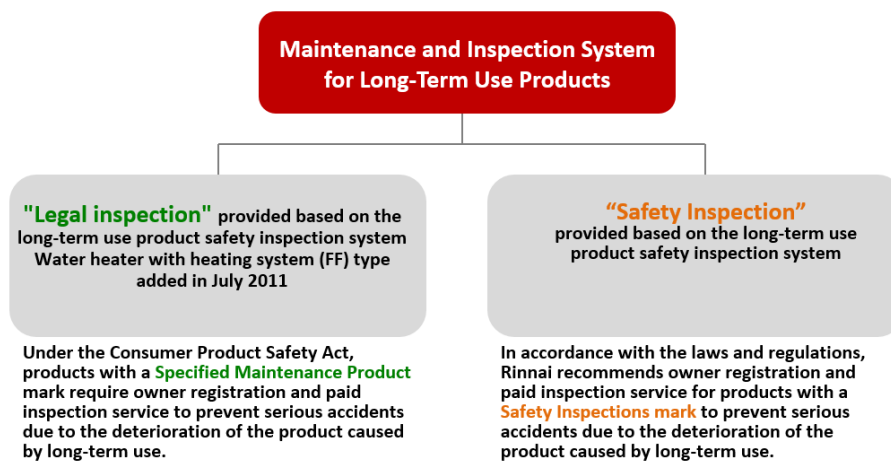
### Efforts to Coordinate an Inspection System

To adequately implement inspection, Product Inspection Center keeps improving its inspection system. In addition to the legally required check points of an inspection system, we also set up voluntary monitoring items to facilitate a reliable inspection system.

### Voluntary System Action Items and the Current Status

Action items	Rinnai's current status
Enhancement of provision of information	We post the detailed information on maintenance and inspection system for our products for a long period of time on our website. The information includes the products that are out of scope of legally mandatory products (specific products that require maintenance).
Enhancement of items to be inspected	In addition to the items of which inspection is legally required (specific products that require maintenance), we set safety inspection products including home-use outdoor gas hot-water units, built-in-stoves and gas fan heaters.
Inspection quality improvement	The inspection results of all items are checked to see if there is any judgment error to assure the technology standards. The inspection completion rate is monitored all the time not to delay the inspection schedule.
Warning after the inspection	When an inspection result concluded the prohibition of the use of a product, we will provide the follow-up of the inspection by calling or writing to the user.

### Overview of Our Maintenance and Inspection System



For the safe use of products, we recommend an inspection in 9 - 11\* years after the production.

\*For home-use appliances (Professional use: 2.5 to 4.5 years)

Designed standard service life*	Target product	Inspection period	Production	Purchase	0-6 months in advance	Inspection period
10-year product	Home-use gas hot-water units Electric dishwasher and dryer	9-11 years after production				
3-year product	Commercial-use indoor-type gas hot water heaters	2.5-4.5 years after production	When you receive a notice, please apply for an inspection. You can also request an inspection during the time of 1 and 2.			

“Designed standard service life” is a period that a product should be safely used without any problems under the normal circumstances with proper handling and maintenance. This is defined for each appliance. Please note that this is not the same as free warranty period. In addition, products that fall outside the scope of legal inspection (specific maintenance products) use the terminology, “Standard service life as designed”.

Users are encouraged to have their equipment inspected during the two-year inspection period. If we do not receive a reply in response to the initial inspection notice, the user will be sent a repeat inspection notice by mail when there is one year remaining before the end of the inspection period, so that they can continue to use their equipment safely.



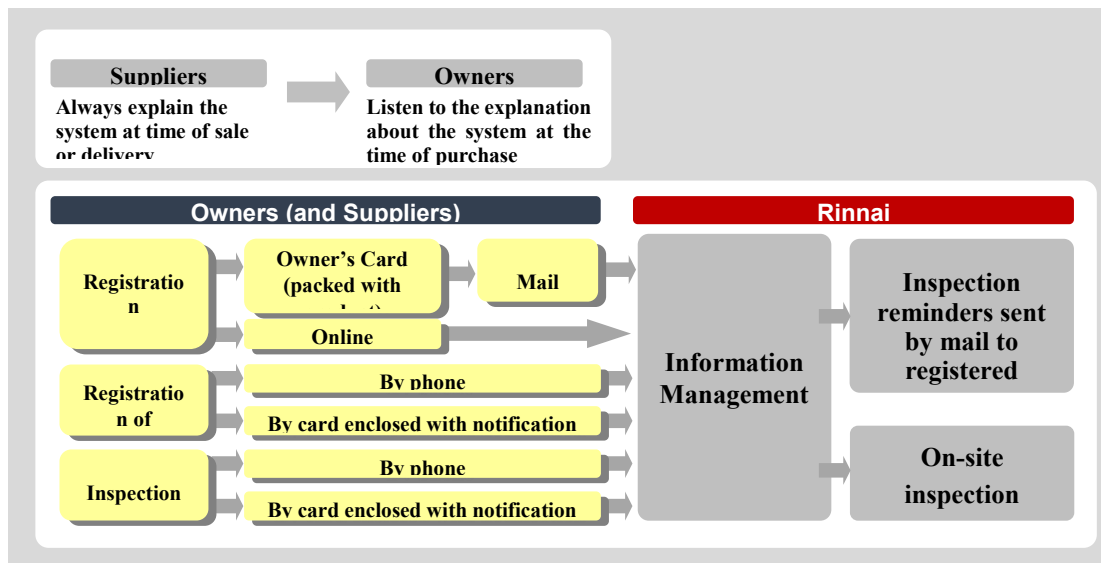
The period for legal inspection of commercial-use equipment produced in April 2009 started in October 2011, so we began sending notices on the inspection to applicable customers. About 70% of customers who responded to the notices applied for the inspection, suggesting their high interest in the inspection system. Accordingly, we will strengthen measures for informing customers of the system, aiming for (1) a higher registration rate and (2) a higher rate of inspection applications.

### Maintenance and Inspection System of Long-Term Use Products

The Maintenance and Inspection System of Long-Term Use Products started in April 2009 is a system to encourage the registration of users and charged inspection for "Specified Maintenance Products" that may cause problems due to the age-related deterioration and may damage and may give serious damage to the life or health of consumers.

Rinnai products corresponding to safety inspection system		
Indoor-type gas instant hot water heaters (for city gas, and LP)	Indoor-type bath water heaters with gas burners (for city gas, and LP)	Dishwashers (built-in)

#### ● Flow of Maintenance and Inspection System of Long-Term Use Products



### Recommendation of Anshin Tenken (Safety Inspection)

In consideration of the Maintenance and Inspection System of Long-Term Use Products, we recommend Anshin Tenken (safety inspection) for products that fall outside the scope of the system.

The scope of the Anshin Tenken (safety inspection)		
•Outdoor-type gas water heaters and bath water heaters (Including hot-water and heating units, and heat sources only for heaters)	• Gas heaters	•Built-in-gas-stoves
Gas water heaters Gas bath heating systems Gas heat source for water heaters Gas heat source only for heaters	Gas fan heaters Gas fan-forced heaters Gas stove Gas dryer	Built-in-gas-stoves Built-in-gas-oven

\* Some products are out of scope.

## From Registration to Inspection

Based on data provided by registered users, we mail inspection notices\* to the designated address when the relevant inspection period approaches. We also carry out inspections for products that are already in use, with orders taken via our Product Inspection Center.

\*Products subject to inspection notices: Any gas hot-water unit with a user registration card attached

## Promotion of Owner Registration

User registration is the important “first step” to connect customers with Rinnai. Information regarding inspections is contained in our catalogs and on our website. We also actively encourage customers to register with us during repair visits and other situations in which our staff have the opportunity to interact directly with customers.

## Inspection Reminders Provided by Remote Controls and Indicator Lamps

We posted information on our website about the inspection reminder function that some of our products\* come with. This function reminds users of legally designated “specified maintenance products” that their products are due for inspection after the equivalent of 10 years of normal use, and users are alerted to this fact by their remote control, a blinking indicator on the product, or similar means. This function also serves to encourage unregistered users to register and request an inspection. This is just one example of our commitment to developing products that deliver peace of mind to the customer.

\*Specified maintenance products other than water heaters for commercial use.

### In the case of registered users

The user is sent an inspection notice through the mail shortly before an inspection is due.

### In the case of unregistered users

The inspection function notifies the user that an inspection is due. (Users can inquire about user registration and inspection by telephone. )

## Customer Trends in Response to Inspections

Inspections are used as an opportunity to enhance customer support. When our engineers visit, for example, users are asked to fill in a questionnaire to help us constantly monitor customer opinion of our inspection services and identify areas for improvement.

## Free Inspection of Small Open-Type Water Heaters

In 2007, one of our small, open-type water heaters malfunctioned and caused an accident. To prevent a reoccurrence of this kind of accident, we continue to offer free inspections to customers using small, open-type water heaters, including the RUS-5RX, produced between July 1991 and January 1995, and the RUS-51BT, produced between May 1994 and January 1997.

Expanding eligibility for inspections: We carry out inspections for small, open-type water heaters that do not have an “inspected” sticker affixed, even if they were manufactured before April 2009 (including two models that have experienced problems).

Precautions after inspections: In cases where usage of a product is prohibited as a result of an inspection, we follow up on the relevant inspection at a later date, by telephone or in writing.

Information on affected products and contact details for inquiries are provided on our website.

Communication with Our Stakeholders

# Communication with Our Customers

## Surveys of Customer Satisfaction and Improvement of Products and Services

Communication with our users allows us to monitor levels of satisfaction with our products and services, areas of dissatisfaction, and ways in which we can improve them.

As of the end of June 2015, we had received 6,000 reviews from users of our Cocotte and Cocotte Dutch Oven grill accessories for the DELICIA built-in hob launched in August 2014. Rated for satisfaction on a five-point scale, the Cocotte scored 4.38 and the Cocotte Dutch Oven 4.48.

In answer to the commonest request from reviewers of the Cocotte and Cocotte Dutch Oven, which was for more recipes, in September 2015 we launched the *Bon appétit!! 100 CUISINE* cookbook especially for the DELICIA grill. In this and other ways, we are responding to customer feedback to further improve satisfaction with our products and services.



DELICIA built-in hob



*Bon appétit!! 100 CUISINE* cookbook

## Taking Advantage of the Internet to Enhance Customer Support

We supply care products and user replaceable parts via our *R.STYLE* online shopping site to help our customers get the most out of their purchases for as long as possible.

The site started in October 2006 as online shopping site for the genuine exchangeable parts of Rinnai products. The range of offerings is being constantly expanded in response to direct customer feedback, and now includes cleaning and kitchen supplies that are highly compatible with our products and original products available only through *R.STYLE*.

In March 2016, the number of registered members exceeded 400,000, providing even more opportunities for contact with users of our products. To keep in touch with members' needs, we conduct online questionnaires (annually 26 times) and use the data obtained to design products that meet these needs and resolve issues that they raise. We will continue to expand direct contact with customers in our quest to deliver better service.



*R.STYLE* online shopping site

## Using Online Customer Feedback Internally to Make Improvements

The extensive feedback provided by customers using the *R.STYLE* shopping site is shared between divisions via our internal *Sunflower Messenger* site so that it can be analyzed and addressed to enhance quality, expand service and support, and drive other improvements. As of the end of fiscal 2015, we have received a total of 40,901 comments to date.



*Sunflower Messenger*

## Developing a High Powered yet Simple Stove

We receive many inquiries from customers on our website requesting a high powered yet simple stove. In December 2015, we released the Vamo, tabletop gas stove available exclusively on the Internet to meet this need.

We pursued the simplest yet sleek design with a focus on cooking and incorporated a 4,000kcal/h high powered burner that is the industry leading power\* of a tabletop stove for home use.

\* Industry's highest powered burner as of April 2016 for gas tabletop stove for home use. Research conducted by Rinnai.



## Providing Useful Everyday Information via Social Media

In May 2014 we launched “*Goto-kun’s Daily Recipes*,” a recipe site for smartphones to help people decide what to cook. The site provides a daily selection of seasonal recipes, along with detailed instructions and lots of photos, to assist people struggling to decide what to cook on any given day.

We also launched an official *R.STYLE* Facebook page in June 2014. The aim is to create more points of contact with new customers, by providing useful everyday information in areas such as cleaning and storage, as well as the aforementioned daily recipes.



*Goto-kun’s Daily Recipe* site, and *Rinnai Style Face Book* site (right).

# Communication with Our Shareholders and Investors

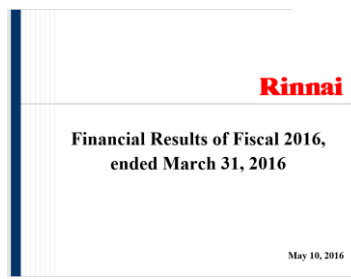
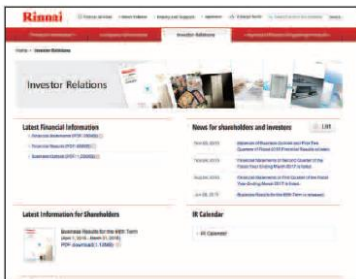
## Policy on Information Disclosure

We disclose information in an appropriate, timely, fair and impartial manner, and engage in IR activities with an emphasis on two-way communication, in order to improve mutual understanding and build trusting relationships with shareholders and investors.

In accordance with the Rinnai Group Code of Ethics and our Disclosure Policy, we adhere to the principle of disclosing corporate information in an appropriate, timely and fair manner, including details of the Group's management and business activities.

## IR Activities – Communication with Shareholders and Investors

In an effort to provide our shareholders and investors with direct updates on our business activities, and to ensure that information is disclosed quickly and fairly, we provide information via channels such as results briefings for analysts and institutional investors (twice a year), biannual shareholder reports, press releases and presentation materials on our website, and our IR calendar. We also post IR information, including results and shareholder reports, on the English version of our website in the interests of timely disclosure.



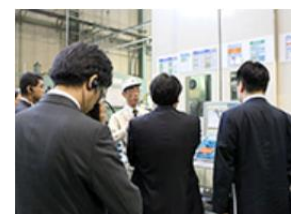
“Information for Shareholders and Investors” on our website, presentation materials, and our shareholder report

## General Shareholders' Meetings

We held the general shareholders' meeting for our 66th term at the Meitetsu New Grand Hotel in Nakamura-ku, Nagoya, on June 28, 2016. To encourage more shareholders to get involved in discussions and attend meetings, we send out notices to convene earlier than the legally required date. We strive to provide information to shareholders on the current state of our business in an easy-to-understand manner using business reports with slides and other media at general shareholders' meetings. Shareholders that have difficulty attending the general shareholders' meetings are able to exercise their right to vote on the Internet. We also make every effort to communicate the company's current situation to shareholders in a straight-forward manner, through shareholders' report featuring photos, graphs, and charts for instance.

## Communication with Institutional Investors and Analysts

In addition to biannual presentations outlining our results, we discuss our performance and actively exchange opinions with institutional investors and analysts through activities such as small meetings, visiting individual investors and accepting telephone interviews. We also take part in conferences organized by securities firms, in an effort to expand our IR activities. We organize factory tours every year as an opportunity to provide a better understanding of our commitment to *monozukuri* (manufacturing).



Factory tour



## Results Briefings for Individual Investors

We take part in events such as seminars for individual investors in order to give investors a better understanding of our business activities. We use accompanying materials to provide simple explanations of our corporate philosophy, management policies, business strategies and overseas operations, to give investors a wide-ranging insight into our activities.

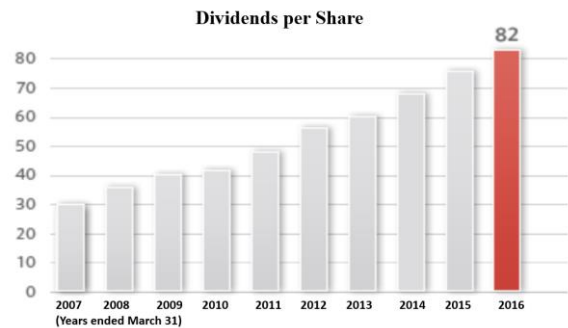


Seminar for individual investors

## Our Policy on Dividend

One of our top management priorities is to sustain a stable return of profits to shareholders. Several factors play into the calculation of dividends, such as consolidated performance, return on equity and financial status.

The annual dividend for fiscal 2016 was ¥82 per share, up ¥6 per share from fiscal 2015. This marked the 14th consecutive year of higher dividends.



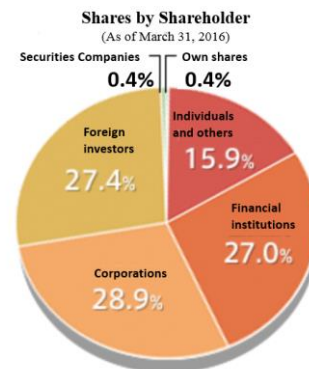
## Share Information (As of March 31, 2016)

Number of authorized shares: 200,000,000 shares

Number of outstanding shares: 52,216,463

(Including treasury stock)

Number of shareholders: 3,831



## International Assessment of CSR Performance

Rinnai has been selected for inclusion in the FTSE4Good Global Index, a worldwide socially responsible investment (SRI) index, for eleven consecutive years since 2004.





## Communication with Business Partners

### Rinnai Group Purchasing Policy

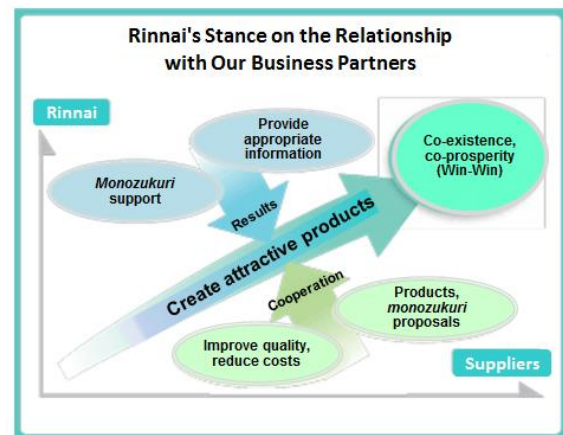
To grow along with our suppliers, we emphasize transactions based on a fair and impartial assessment and selection process and respect for laws and regulations and corporate principles, in accordance with the Rinnai Group Purchasing Policy.

#### Rinnai Group Basic Policy

“We will give equal opportunity to all companies at home and abroad and undertake fair evaluations to procure excellent parts that meet our requirements.”

### Rinnai’s Stance on the Relationship with Our Business Partners

Our suppliers provide us with the raw materials and many of the components that go into the products we make. They are business partners indispensable to the creation of products that attract consumers to the Rinnai name. At Rinnai, we believe that building stable, long-term relationships with our suppliers and growing with them as they grow with us is vital to the creation of better products.



### Realization of Fair-and-Square Transactions

In accordance with the Rinnai Code of Conduct in the Rinnai Group Code of Ethics, our supplier acceptance process is applied uniformly, whether the company is an old-time supplier or seeking to become a supplier.

Our evaluations are fair, giving equal opportunity to any and all companies with the right stuff, whether at home or abroad. Essentially, the divisions involved in procurement—that is, divisions responsible for technology, quality and purchasing—consider all factors, including quality, price and delivery as well as the potential supplier’s technological capabilities, safety, and its environment-oriented activities, in reaching an impartial, well-considered decision.

## Communication with Our Business Partners

We provide opportunities for suppliers to learn more about our perspective on quality and the basis of *monozukuri* at Rinnai through annual events including a get-together at the beginning of the year and policy information meetings and regular meetings of the Supplier Liaison Group. These meetings are also ideal for gathering information through suggestions from suppliers and promoting dialogues based on submitted questions. Indeed, these meetings promote a stronger commitment to teamwork.

We are similarly committed to using online resources to effectively and quickly coordinate information with as many suppliers as possible, using an interactive information-sharing tool called R-LINE to enhance our preparedness for business risk during a disaster.



Policy information meetings

## Improvement Activities with Our Business Partners

We organize Level-Up Workshop events with our business partners, to provide guidance on improving capabilities and training next-generation leaders. The aim is for business partners to appreciate the benefits of improvements, through direct guidance with onsite operations for instance, and to improve their level of *monozukuri* (manufacturing). Specialist members of staff also provide individual consultations for next-generation leaders, to enhance essential skills and knowledge.

Our aim in providing onsite and management support in this way is to improve overall standards at each of our business partners.



Level-Up Workshop

## Measures for Risk Management and Stable Procurement

We are committed to risk management and stable procurement of parts and materials, so that we can ensure customer satisfaction and reliably supply the safest possible products. With changes in demand and market globalization however, our supply chain is increasingly expanding all over the world, making it virtually impossible to reduce risks on our own. It is therefore essential to take joint measures with our business partners. We are currently implementing joint measures such as dispersing production sites to guard against unforeseen circumstances, gathering information on secondary processors and companies carrying out later processing, maintaining information on dies, leased equipment and other assets, and formulating business continuity plans (BCP), with our business partners.

We are also able to quickly arrange alternative production and equivalent parts in the event of a natural disaster or other such unforeseen circumstances, so that we can minimize any impact on production activities.

## Promotion of Acquisition of ISO9001 and ISO14001 Certifications

To ensure provision of high-quality, safe, environmentally friendly products, all our domestic factories acquired ISO9001 certification (for quality management systems) and ISO14001 certification (for environmental management systems).

We also ask our business partners to understand our approach to quality and the environment and to obtain ISO9001 and ISO14001 certifications or establish equivalent management systems, and we help them operate the systems.

## Communication with Logistics Partners

We hold a logistics policy information meeting to help service providers gain deeper insight into the logistics policy, targets and measures of the Company and logistics department. In addition, we arrange partnership meetings to reduce environmental impact in relation to the transportation and storage of products, and to improve the quality. We also visit partners' working sites regularly to share issues with them and help them make improvements.

## Forklift Contest

We stage a regular forklift contest for employees of our group companies and logistics partners. The aim of the contest is to make the workplace safer and more secure by driving home the basic rules on forklift truck operation and raising handling skills. The fifth forklift contest was held at our Integrated Logistics Center in May 2015, and a total of 26 competitors took part: 14 from the Rinnai Group and 12 from our logistics partners.



Forklift contest

# Communication with Our Employees

## Basic Policy

We are working to develop a cheerful and satisfying work culture that motivates employees and helps them maximize their potential, and a workplace environment that keeps employees safe and healthy.

We offer both personnel system support and various health and family-friendly fringe benefits to motivate employees and provide them with greater job satisfaction. We also strive to create a homely atmosphere and to improve and maintain a safe and healthy workplace so that every single employee can get the most out of his or her abilities.

We believe that motivation, job satisfaction, and space for growth hold the keys to employees' development and maximization of their potential. To further raise employee satisfaction, therefore, we are pursuing action in the following four areas.

- (1) Provision of opportunities for personal growth (level-specific training, specialist training, practical on-the-job training, optimal placement, rotation)
- (2) Fair and acceptable assessment and remuneration (performance evaluation, face-to-face interview system, improvement of salaries and allowances)
- (3) Development of a homely working environment (improvement of company buildings and environment, regular events, support for club activities, inter-division collaboration)
- (4) Fringe benefit support including family-friendly benefits (optional fringe benefits, health support, company pension, events arranged with employees' union)

## Personnel Training

We defined our fundamental human resources policy as "Nurture and encourage our employees to have a high level of morality and keep challenging their own goals continuously making effort." We guide and train our employees to be able to demonstrate their initiative to drive the Company while giving priority to our Corporate Philosophy embodied in our Company Motto, "Harmony, Spirit and Sincerity", which Rinnai has been pursuing since its establishment in 1920, and our Corporate Mission, "Rinnai utilizes heating to provide society with a comfortable way of life."

We provide our employees with numerous opportunities to grow as an individual such as rank-specific training programs, specialization courses, OJT trainings and a rotation training program, which covers workplaces at home and abroad.

## OJT Personnel Training

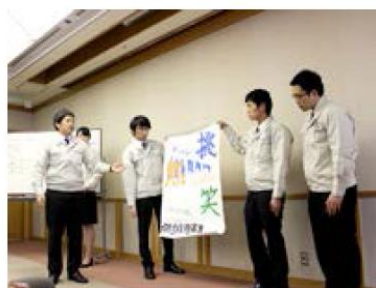
We position human resources as our most important management resource and we offer personnel training to assist employees to fully demonstrate their capabilities.

Our main training is on-the-job training (OJT), wherein a supervisor guides his/her team member through an actual job. In addition, we provide a rank-specific training program, which supports the improvement of each employee as an individual by grouping them according to job responsibility, and a specialization course, which promotes our employees to be highly specialized in their area. These three programs form three pillars of Rinnai's training system. Moreover, we are conducting a level-up training program for Group leaders who have been promoting our business plan since fiscal 2011.



<Major Rank-specific Training Programs in Fiscal 2016>

Training	Subject	Content	Number of trainees
New employee training program	New employees	Basic training for professionals (manners, awareness as a professional), Fundamental training for Rinnai employees (company overview, the Rinnai Spirit, corporate ethics, personnel system, policy on quality and environment), IT skills and mental health	130 people
New employee follow-up training	Generalists in their 1st year, clerical employees (technical employees) in their 1st year	Training for increasing motivation to work and raising professional awareness (Reconsolidation of what was learned in the new employee training program; employees who joined the company in the same year gather and share information about their current status)	83 people
S4 level qualified employee training	S4 level qualified employees	Reconsolidation of fundamentals (corporate ethics and management policy), Recognition of his/her characteristics (to improve the strength) and the reinforcement of awareness of management (creation of management plans)	116 people
M6 level qualified employee training	M6 level qualified employees	Reconsolidation of corporate ethics and management policy Understanding duties of managerial supervisors (rules of employment, Labor Standards Act, handling of problematic employees), Understanding of management	49 people
M6 level qualified employee follow-up training	M6 level qualified employees	Reaffirming shared goals Reconsolidation of values concerning managers' actions Reviewing the efficiency of the entire workplace	49 people



New employee training program



President's speech

## Career Development Review and Support

### Visualizing skills of individual employees and guiding their growth (capability evaluations and feedback of the results in one-on-one interviews)

For each training program to function effectively, it is essential to match the capability required by the organization and the goals set by the employees.

Therefore, Rinnai prepares a "Skills Map" and a "Capability Evaluation Sheet" to define the skills and capabilities required by each department and to clarify the goals and capabilities the company expects the employees to achieve. Based on these tools, our employees understand their current roles and responsibilities. Employees also have a one-on-one interview with their supervisor, during which they receive the results of their performance evaluation and are informed of the company's future expectations of them. They then set up their own goals to challenge every year.

Supervisors, to actively perform the responsibility to navigate the growth of their staff, carefully review each staff's progress and contribution (performance evaluation) and adequately inform the staff of the results of the evaluation through one-on-one interviews or performance appraisal feedback meetings.



## Support for Self-Directed development

To support each employee to acquire higher specialist knowledge, skills and culture and support their growth as an individual, we actively provide programs including foreign language education, correspondence courses, external open seminars, technical proficiency examinations, license acquisition courses, and communication with people in different companies/industries. We provide rank-specific training programs to create opportunities to be aware of aspects for strengthening one's sense of humanity. To employees who wish to develop themselves, we actively provide programs including foreign language education, correspondence courses, external open seminars, technical proficiency examinations, support for attending national license acquisition courses, and communication with people in different companies/industries.

In addition, for the young employees who have a strong desire to work overseas, we arrange and operate a short-term overseas working and training program that is available for them via application. This is to develop human resources that can globally demonstrate their capabilities working at our overseas locations. Currently, a total of six young engineers are working under this program in the United States, Australia, Brazil, and Thailand. By providing our employees with opportunities to work at our overseas locations in this way, we promote development of human resources that can demonstrate their abilities at a global level.

## Development of Global Human Resources

We aim to develop human resources who can demonstrate their abilities beyond national boundaries and improve the capabilities of Rinnai Group employees all over the world. Therefore, the management divisions, product development divisions, and manufacturing divisions are developing their own training courses and OJT programs implemented via employee exchange. We provide opportunities for Japan-based employees in their 20s (at the earliest) to be assigned to overseas Group companies, which improves their ability to adapt to foreign cultures and their international business sense through actual overseas work experience.

### (1) Management Department

At the management division of the Head Office, we regularly visit our overseas locations to provide instruction on management and accounting and to develop human resources. We also launch business reform projects when specially requested. Under such projects, specialists from Japan develop local executives through planned visits to overseas location that provide them with instruction on methods for improvement in a way that allows them to achieve results through practical operations.

### (2) Product Development, and Production Department

We actively promote human resource exchanges between Japan and overseas locations, with about 20 employees participating each year. Staff members from our overseas Group companies receive OJT in Japan for about one year, learning practical skills and what to improve at their own companies at the development divisions, factories, and management divisions in Japan. Japan-based employees assigned overseas practice product marketing and handling of quality issues, as well as improvement of factories' manufacturing and production systems. Through these activities, they hand down the key themes that constitute our corporate culture and expertise on Japanese-style *monozukuri* and quality assurance to local managerial staff.



### From Our Employees Seconded Overseas (1)

I have been on loan to Rinnai Australia from the Production Engineering Division for about a year now, and since I arrived I've been responsible for production readiness at our new plant. Drawing on my experience of quality control techniques in Japan, I devise control methods to ensure that products are always made the same way and see that these methods are followed on the factory floor to ensure that production facilities and workers produce good quality products.

As there are fewer personnel here than in Japan, you have to have broad knowledge of die pressing, welding, and product assembly. Every day is a learning experience and I'm learning many new and valuable things. Obviously there can be communication problems due to language and cultural differences, but these only serve as a reminder of the importance of mutual understanding.



Masayuki Toda  
Rinnai Australia Pty. Ltd.

### From Our Employees Seconded Overseas (2)

Having been responsible for operations in East Asia and Europe in the Overseas Business Headquarters for about four years, in 2014 I was posted to Rinnai America. There I took charge of Asian wholesalers' accounts in sales, and I also assist operations in areas including logistics, product planning, accounting, and internal control. Working here has given me the opportunity to hear directly from our American users and their praise for our products. While differences of language, culture, and thinking have sometimes created difficulties, I have found it enormously rewarding being able to work beside our colleagues on the spot here in the U.S.



Shunsuke Tsutsumi  
Rinnai America Corp

### From Our Employees Seconded Overseas (3)

I'm in Hong Kong now, having been posted here from the Overseas Business Headquarters five years ago. My responsibilities in Hong Kong, which I carry out with the assistance of my colleagues at Rinnai Japan and other members of the Rinnai Group around the world, cover operations in general in Hong Kong and Macao, including management of Rinnai Hong Kong, sales and marketing targeted at our Hong Kong and Macao business partners, assistance with the development of new products, handling of quality issues, and general reporting to head office.

As I'm always visiting our agents and dealers that sell Rinnai products and often have the chance to see inside our suppliers' and partners' businesses, I'm learning a lot about different corporate cultures and ways of thinking closer to our markets.



Koji Tanaka  
Rinnai Hong Kong Ltd.

## Succession of *Monozukuri*, the Spirit of Manufacturing

### Training at Production Technology Center

"Production Technology Center" established in March 2010 is a place to pursue leading-edge *monozukuri*, and an emphasis is placed on delving into core technologies. It is also a hub for developing human resources involved in *monozukuri* activities at Group companies at home and abroad.

To pass Rinnai's *monozukuri* to the next generation, over 30 booklets of "Visual manual" were produced as a talent developing support tool. Utilizing this tool, our staff qualified in various technical areas provides detailed training on Rinnai's manufacturing technique accumulated from the past, for employees including trainees from overseas Group companies.



Training

Visual manual

### Training at Production Technology Center

We have set up “*monozukuri* legacy stations” at each of our facilities to accumulate and maintain intangible assets, in the form of existing processing technologies, new technologies and “frontline insights” established by experienced employees. As well as giving newly assigned employees the opportunity to learn the basics of *monozukuri* (manufacturing), we use stations as a means of sharing and conveying the essence of *monozukuri* and training employees in areas such as improving efficiency and reinforcing production management.



Employee conduct display  
(Oguchi Factory)



Coating training station  
(Seto Factory)

### New Engineer Training

New employees before their actual allocation to each department, receive onsite training at the Research and Development Headquarters and Production Engineering Division as well as practical manufacturing training at factories and production Group companies, and sales training at the nationwide sales offices to learn about the importance of *monozukuri* including product and technology development.



Studying the structure of  
dish washer



Studying the structure of  
plug of gas appliances



Studying about gas combustion

## Work-Life Balance

### Support for Work-life Balance

For all Rinnai employees to perform well attaining the sense of accomplishment and fulfillment balancing work and personal life for each lifestyle, we continue to enhance our personnel system to support all employees of any gender and nationality through their lives.

In fiscal 2013, we are planning to extend the period of childcare leave and childcare shortened work hours, which many employees use, to strengthen support for working women. We will also actively develop and apply measures for supporting health management.

#### < Major Programs and Measures in Fiscal 2016 >

Program and measure	Content	Number of users	
		Fiscal 2016	Fiscal 2015
Childcare leave	An employee who lives with and is the caretaker of a child younger than 12 months of age can take leave until the child turns 1, or alternatively until the child is aged 1 year and two months.	90	81
Childcare shortened work hours	In the event that an employee is the caregiver of a child that hasn't been enrolled in an elementary school, or is the caregiver of a family member that requires nursing, the employee in question will be exempt from working late shifts (10:00PM - 5:00AM) with the exception of cases wherein the employee's absence would preclude or inhibit the continuation of normal business operations	69	68
Child nursing leave	An employee can take up to ten days leave per year (20 days per year if nursing two or more children)	15	2
Extended family care leave	In principle, total 93 days of leave may be granted per one family member who falls in to the subject of the care.	1	0
Family-care shortened work hours	Any employee who is responsible for a family member that requires full-time or nursing care may shorten his/her daily working hours, provided that a minimum of 6 hours are worked each day. This provision is possible for 93 days per such family member.	0	0
Family care leave	An employee can take up to five days leave per year (10 days per year if two or more family members require care)	0	0
Work from home program	The longest duration of "Work from home program" shall be one year per application. Utilizing IT equipment, an employee may work partially or entirely at home.	3	2
Come Back program	The program offers an employment opportunity to our former employees who had to leave the Company for unavoidable reasons such as marriage, child-care and family-care, or on his/her discretion.	0	0
Measure to reduce working hours (Flexible working hours)	Depending on work plan, working hours and work start/end time can be negotiated.	Production divisions Management divisions	
Measure to reduce working hours (No overtime day)	Every Wednesday is set as "No overtime day" to encourage employees to leave early.	Applicable to certain departments	

## Measures to Enrich Our Employees' Family Lives

The Rinnai Employees' Association is the lead organizer of courses for employees on the themes "Education for the Soul" and "Passion for Life." These courses are intended to prepare people for the different stages that life will take them through, with a focus on ethics, communication skills, life planning and money matters. Of the firm belief that a positive perspective on work is essentially a reflection of a happy home life, we encourage employees to take advantage of opportunities, such as barbecues and sports days, where they can gather as families with families. These events foster a sense of harmony among colleagues.

### <Major Programs in Fiscal 2016>

Item	Overview
Nationwide events in Japan	Various events to promote health of our employees and their family members and communication including bowling competition, barbecue picnic, and sports festivals
Training seminars by age group	Training seminars focusing on the "Education for the soul" that supports employees to develop attractive personalities as members of society

Nationwide Events	Number of participants
Chubu Sports Festival (Oguchi Sogo Ground)	1,840
Walking Festival (Higashiyama Zoo)	1,304
Kanto Festival (Kasai Rinkai Park)	220
Nationwide BBQ event, in Hokkaido, Tohoku, Niigata, Hoku-riku, Shizuoka, Chugoku, Shikoku, and Kyushu	677



Chubu Sports Festival



Nationwide BBQ event (Hiroshima)



### 33rd Walking Festival

This annual walking event is designed to let employees enjoy time with their families and raise their awareness of health. The venue this time was the Higashiyama Zoo and Botanical Gardens where, participants enjoyed environmental quizzes and games while walking the 10,000-step (approx. 4.1 km) course. A total of 1,304 employees and family members participated in the 33rd annual event.



Training Seminar by Age	Number of participants
Personality design seminar	47
Life design seminar	102
Self-realization seminar	21
New employee communication seminar	128



Life design seminar



New employee communication seminar

## Industrial Relations and Human Rights

At the Rinnai Group, aiming to provide the work environment and culture that employees can feel as "I am happy to work at Rinnai.", the Rinnai Employees' Association and Personnel Affairs Division regularly convene the Labor-Management Council to confirm and share the information on management policy, actual results, and comments from each workplace as a periodic improvement activity.

Moreover, our basic stance toward human rights, the respect for each other's personality and the prevention of harassment is compiled as "Rinnai Code of Ethics" to educate and enforce all employees in the Group. In addition, we also established the Corporate Ethics Helpline to maintain the sound environment of the workplaces.

### Establishment of Good Labor Relations

The Employees of the Company are "members of the Rinnai Employees' Association" which functions as the organization to represent entire employees.

Based on mutual understanding and trust, the Company and the Association establish healthy and sound labor relations openly exchanging opinions on management issues, labor condition, workplace environment and compensations and discussing improvement plans.

Moreover, the Company makes effort to provide safe working environment without any concern to the employees of our business partners, etc. in addition to our employees. We also actively arrange and offer welfare programs and various events and programs for our employees and their families.

### Respect for Human Rights and Individuality

Our Group considers respect for human rights and individuality as one of its main pillars for performing its social responsibilities as a company. We therefore strictly prohibit any form of discriminatory treatment based on gender, age, nationality, physical characteristics, or any other attributes of individuals. We also refer to the ideas of the United Nations framework and ISO26000 and reflect them in the Rinnai Group Code of Ethics.

To promote and enforce the contents of the Rinnai Group Code of Ethics among all Group employees, a compliance committee member is allocated to each workplace to regularly conduct education on corporate ethics. At rank-specific training programs, we also educate our employees based on their roles and job responsibilities.

### Measure to Prevent Child and Forced Labor

As a measure to prevent child and forced labor, "Rinnai Group Code of Ethics, Rinnai Code of Conduct, Article 11 The respect for human rights and each other's personality (4)" stipulates as "The Company should not allow any inappropriate labor including harmful and exploitative child labor which lets under-aged children to work, and slavery against the will of employees." Entire Group abides by and acts on this rule.

### Measures to Prevent Harassment

To maintain working environment that our employee find comfortable, we take measures to prevent any infringement of human rights including sexual harassment and power harassment.

To avoid our employee to commit any harassment without any intention and knowledge, we produced a check list of detailed examples of harassment case that is posted on the company-wide intranet for self-assessment.

Each year we also provide newly assigned section chiefs with harassment-prevention education to reinforce this prevention.



# Fair and Diversified Employment

## View toward Employment

We respect the diversity of individuals and provide employees with various job opportunities and a working environment where they can demonstrate their various capabilities.

Rinnai Group Code of Ethics stipulates that "Any discriminatory act toward an individual based on gender, age, nationality or physical characteristics, etc. is prohibited". Based on this, we maintain fair and equitable hiring practices, in line with prevailing business plans and recruitment needs.

In addition, we actively engage in mid-career hiring to capitalize on the accumulated experience and knowledge of individuals who showed they can make a contribution to our success. We hire about 25 skilled mid-career employees every year.

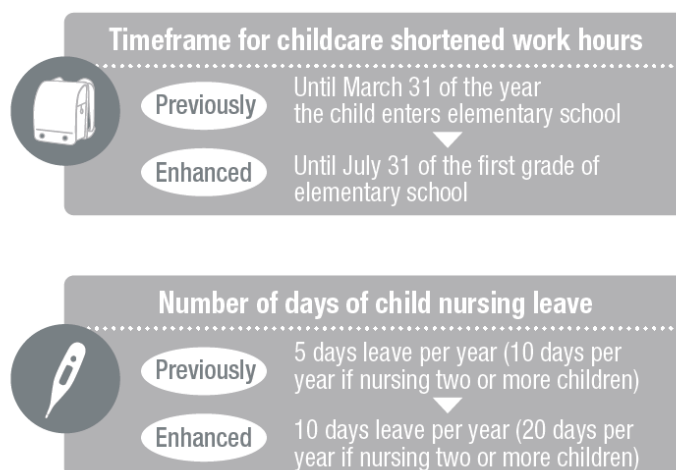
## Support for More Active Roles for Female Employees

### (1) Current status of positions held by female employees

Ideas and comments from women are absolutely crucial to our products, particularly as they use so many of our products on a daily basis. We have female employees playing key roles and demonstrating their individual abilities across a wide range of areas, especially in product planning and design departments, sales planning and promotion departments, fixed customer sales departments and production departments. The percentage of women in generalist positions (core jobs) is also increasing every year, with the number of women in executive positions also rising gradually. As of March 2016, the company had three female managers and 65 female employees in managerial positions (2.8% of all generalist positions).

### (2) Enhancement of Support Programs for Working Women

For women to keep working for the Company after getting married, we provide various working styles and support programs. We have strived to create a work environment where it is easy for women to work and for those with children by introducing childcare shortened work hours and more days for extended child nursing care leave in Fiscal 2016.



### <Major Programs>

Career track conversion system	A system which allows employees to convert from generalists to clerical employees (when they do not wish to relocate for job assignment or if there is a request for shortened working hours), or from clerical employees to generalists (because of superior work performance)
Reemployment system (Come Back)	A program that enables former employees to return to work as a

Program)	full-time employee
Childcare leave and Family care long leave	Programs to support employees to raise children
Shortened work hour system	A program to support employees to raise children and care their family members
Work from home program	A program to support employees to raise children, care their family members and recover from diseases

**(3) Action Plan to Support Programs for Working Women**

From fiscal 2017, we implemented the action plan base on the Act on Promotion of Women's Participation and Advancement in the Workplace.

**Reemployment of Retired Employees and Support for Demonstration of their Abilities**

Rinnai promotes a reemployment program for employees who retired due to the age limit in order to continuously utilize technology and skills that skilled employees possess and to smoothly pass on the skills and the Rinnai Spirit to following generations. There are currently 175 employees working under this program. We offer one-year contracts until the age of 65, with a choice of three options, enabling employees to work full time, alternate days or reduced hours. We also have a system in place to extend employment to the age of 68 in the case of employees with outstanding specialist skills or abilities, to fit in with a wide range of individual lifestyles.

This reemployment program provides employees with purpose and motivation in life as a leader/mentor and maintains and improves the corporate culture and dynamics within the workplace.

**Promotion of Recruitment of Handicapped Employees**

Since fiscal 2009, we have promoted recruitment of handicapped employees in a planned manner by cooperating with the public employment security office and schools for the disabled. In the initial year, the employment rate of persons with disabilities at the Company was only 0.79%, so out of a sense of social responsibility (sense of urgency) we took a more active stance toward recruiting handicapped people.

In July 2008, the public employment security office greatly assisted us with recruitment of handicapped people. The office allowed us to hold an exclusive job interview meeting at which we interviewed a total of 28 applicants and employed 15. We later began to recruit new graduates from schools for disabled students and implemented an internship program for second-year students of those schools. The number of newly recruited disabled employees has been increasing each year.

The Customer Center we established in fiscal 2011 has toilets and ramps for wheelchair users, and barrier-free elevators; thereby improving the Company's internal facilities for handicapped employees. The employment rate of persons with disabilities at the Company has consequently been significantly improved to 1.82%. We will continue to promote recruitment activities and improve the workplace environment toward achievement of the legally mandated minimum employment rate of 2.0%.

## Occupational Health and Safety

The Group gives priority to the assurance of the health and safety of our employees and stakeholders and abides by the laws related to health and safety. In addition, all the employees in the Group strive to create, maintain and manage a working environment which is safe and sanitary and develop an active organizational culture which encourages our employees to be physically and mentally healthy.

### Basic Policy on Safety and Hygiene

An essential requirement in business is the assurance of the health and safety of employees, via the provision of a hazard-free and hygienic work environment. As Rinnai constantly strives to protect the life and health of all employees we give top priority to the sanitary condition and safety of the workplace. This corporate mantra extends to our customers, to whom we strive to provide “safety and peace of mind”.

#### Fiscal 2014 Basic Policy on Safety and Hygiene

- (1) Comply with all applicable laws and internal regulations
- (2) Undertake safety activities based on a clear understanding of risks
- (3) Maintain two-way communication between managers and workers
- (4) Improve health management and promote occupational health activities

### Status of On-the-Job Accidents and Injuries

In fiscal 2016, we made efforts to achieve the goal of zero accidents under the Rinnai Companywide Health and Safety Committee, serving as the administrative organization of Group companies in Japan. We recorded a total of 38 on-the-job accidents (12 increase comparing to the previous year).

In response, under the improvement plan for fiscal 2017, we will comprehensively review what protective gear and tools to wear/use at each workplace and for each type of work, establish rules and standards based on the results of the review, and make it a top priority to comply with the safety rules and standards.

With regard to the on-the-job accidents occurring in the previous year, each Group company will as soon as possible take measures for preventing their recurrence. The entire group will thus make concerted efforts to ensure prevention of accidents toward achieving the goal of zero accidents.

### Accident Prevention Measures

To give our No.1 priority to work safety and peace of mind, the Group promotes various accident prevention measures under the guidance of the “Risk Management Committee” headed by the President.

With the rising frequency of large-scale disasters at home and abroad, the Rinnai Group, aiming to build a strong corporate structure to withstand crisis situations, establishes business continue plans for a quick recovery at the time of disaster.

- (1) Activities to prevent fire and explosion: Enforcement of safety inspection of environmental safety equipment (gas feeders and furnaces, etc.) and test and evaluation equipment, and the improvement and renewal of equipment as our top priority
- (2) Reduction of risk of earthquake damage: Preventing objects in factories and office buildings from falling over, dropping, and scattering
- (3) Production site onsite guidance: Horizontal development of the production sites under the guidance of the Safety and Health Committee of Production Group
- (4) Training for clerical work staff and new employees: KYT training for new employees including a monthly information sharing session regarding on-the-job accidents, designed to promote work-safety awareness.
- (5) Implementation of emergency drill: "Earthquake and fire drill" more than once a year

\*KYT: *Kiken Yochi* (danger prediction) Training

With the rising frequency of large-scale disasters at home and abroad, the Rinnai Group, aiming to build a strong corporate structure to withstand crisis situations, establishes business continue plans for a quick recovery at the time of disaster.



Emergency drill

## Promotion of Traffic Safety

To minimize traffic accidents involving employees, various measures and education programs are provided. We obtain a certificate of driving record for each employee who is granted permission to drive a company car or commute by car. This is to accurately gauge the number of employees' traffic accidents and violation of traffic rules to improve self-awareness for compliance.

In particular, it is mandatory for employees in sales divisions to report accidents and violation of rules, given that they spend more time driving than other employees. Depending on the details, we have introduced a safe driving "eco drive" promotion system at selected facilities, to monitor data on driving practices on a daily basis. For new employees, as well as raising awareness of safe driving, we implement training program such as driving, risk prediction using moving image, traffic law education, quality test, in cooperation with an outside driving school.



Driver education at a driving school

## Care for Health

To promote the creation of a vibrant corporate environment wherein people can work healthily -both physically and mentally, it is a precondition that each employee to be health conscious and promote sound self-management and health enhancement.

To maintain and improve the health of our employees and their families, through collaboration with the Rinnai Health Insurance Society, the Company encourages 100% of employees to undergo a medical checkup and receive consultation from an industrial doctor if the employee requires further examination. Various measures including mental health care workshops, medical checkup support, support for special medical checkups (complete medical checkups and cancer screening) and introduction of subsidized sporting events are also actively implemented.

### Support for Health Promotion

Through the alliance with the Rinnai Health Insurance Society, we provide a range of medical support services to our employees and their dependent families which include regular checkups as well as detection examinations for various types of cancer (including prostate, intestinal and breast cancer checks). Thorough physical examinations are also available. For patients with lifestyle diseases, specific health guidance and an individual follow-up are provided to make sure the employee is fully recovered.

For physical fitness, we are also eager to financially support sporting events organized by the employee union and voluntary club activities for employees all over Japan (28 clubs including soccer, baseball, golf, cycling, table tennis, bowling, and distance running) to promote employees' health.

### Expanding Health Promotion Activities

We have established a Health Support Office and organize employee health promotion activities overseen by specialist health nurses. We offer health guidance and consultations for individual employees and run health seminars, to provide information on subjects such as preventing lifestyle-related diseases.

We also organize mental health seminars and run a support program to help employees who have been on long-term leave to return to work. We provide rehabilitative work-based support so that employees can return to the workplace as smoothly as possible.

To prevent those working long hours from experiencing health problems, we set out standards that go beyond legally required standards, and also arrange consultations with health nurses and industrial physicians.

In our employee cafeteria meanwhile, we work with nutritionists to provide menu options that are designed to keep our employees healthy.



## Mental Health Care

In fiscal 2016, we organized seven courses; a basic seminar for managers to teach them how to manage and handle members of staff, and an advanced practical seminar for managers. A total of 315 employees attended 14 seminars in total. We have also introduced an external mental health care service that employees can consult regarding concerns within their local community or at home, as well as individual concerns in the workplace.

<b>Self care</b>	<b>New employees</b>		<b>All employees</b>	
	<b>Basic program</b>		<b>Basic program</b>	<b>Applied program</b>
<b>Line care</b>	<b>Managerial supervisor</b>			
	<b>Basic program</b>	<b>Applied program</b>	<b>Advanced program</b>	<b>Listener program</b>
<b>Internal care</b>	<b>Industrial doctors, public health nurse, health supervisors, labor managers</b>			
<b>External care</b>	<b>Mental health counseling service (telephone/face-to-face)</b>			

## External Acclaim and Recognition

### First Company Selected in the Metal Products Category as a 2016 Health and Productivity Company

Rinnai was selected in January 2016 by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange to a 2016 Health and Productivity Company. Those selected as a Health and Productivity Company are companies with excellent health and productivity management\* which strategically practice the management of employee's health and wellbeing from a management perspective. This is a project started in fiscal 2015 to introduce attractive companies to investors that place a focus on improving company value from a long term perspective. Our company is the first to be selected for this in the metal products category of the Tokyo Stock Exchange for our support of improved employee health through health checkups, personalized support and mental health efforts.



### Certified by the City of Nagoya as a “Company Promoting Women’s Activities”

Rinnai was certified as a “company promoting women’s activities”, as part of a scheme operated by the City of Nagoya (Aichi prefecture) in fiscal 2014. Certification is granted to companies that are making a concerted effort to ensure that women can play an active role, with commendations presented to companies engaging in particularly outstanding initiatives. We have been certified in recognition of three key initiatives aimed at expanding frameworks, assigning duties and changing attitudes, to support female employees so that they can play a greater role in the workplace.





## Registered by Aichi Prefectural Government as a “Family Friendly Company”

In March 2014, Rinnai was registered by Aichi Prefectural Government as a “family friendly company”, based on our commitment to ensuring that employees can strike a balance between their work and private lives. Aichi Prefectural Government has created this registration scheme in order to encourage companies to focus more on work-life balance, and to promote initiatives on a broader scale.



## Certified as “General Business Owner Meeting Standards”

In May 2014, Rinnai was certified by the Aichi Labour Bureau of the Ministry of Health, Labour and Welfare as a “general business owner meeting standards” in accordance with the Act on Advancement of Measures to Support Raising Next-Generation Children, and was awarded the “Kurumin” next generation certification mark. This serves as recognition of our efforts to formulate and implement action plans based on targets such as employing specialist health nurses, securing childcare leave for male employees, and encouraging employees to take annual paid leave.



## Certified as “Parent-Friendly Company”

In fiscal 2015, we were recognized as a parent-friendly company under Nagoya’s parent-friendly company accreditation scheme. The purpose of such schemes is to certify or recognize companies that are working to create parent-friendly environments. At Rinnai, we are developing a range of programs to facilitate work-life balance, including telecommuting arrangements and our “Come-Back” reemployment program.



# Human Resource and Personnel Related Data

We disclose human resource and personnel related data including the number of employees and the status of fulltime employees.

### Number of full-time employees (consolidated, year-end)

		Fiscal 2014 (At March 31, 2014)	Fiscal 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)
Rinnai Corporation	Male	2,534	2,536	2,495
	Female	1,095	1,094	1,084
Domestic Group Companies	Male	1,108	1,107	1,112
	Female	567	567	562
Overseas Group Companies	Male	2,969	3,032	3,231
	Female	1,320	1,346	1,456
Total		9,593	9,682	9,940

**Number of full-time employees by region (consolidated, year-end)**

		Fiscal 2014 (At March 31, 2014)	Fiscal 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)	Composition
Japan	Male	3,642	3,643	3,607	-
	Female	1,662	1,661	1,646	-
	Sub-total	5,304	5,304	5,253	52.8%
Asia excluding Japan	Male	2,511	2,549	2,592	-
	Female	1,124	1,141	1,171	-
	Sub-total	3,635	3,690	3,763	37.9%
North America, and Europe	Male	92	106	123	-
	Female	41	43	46	-
	Sub-total	133	149	169	1.7%
Other (Oceania, South-America)	Male	366	377	516	-
	Female	155	162	239	-
	Sub-total	521	539	755	7.6%
Total		9,593	9,682	9,940	100%

**Number of employees (non-consolidated)**

		Fiscal 2014 (At March 31, 2014)	Fiscal 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)
Newly recruited employees	Male	92	73	57
	Female	49	39	39
Mid-career recruitment	Male	6	7	7
	Female	13	6	3
Average working years		14	14.2	14.7
Average age (years old)		35.8	36	36.5
Separation rate (%)		2.3	2.4	2.3
Paid leave utilization ratio (%)		36.6	41.6	42.3
Employment rate of persons with disabilities (%)		1.74	1.72	1.82
Number of employees who used childcare leave		58	81	90
Number of employees who used shortened work hours		54	68	69
Number of employees who used the work-from-home program		1	2	3
Number of on-the-job accidents		29	26	38

## Communication with Our Communities and Society

The Rinnai Group engages in a variety of voluntary and community-based activities in Japan and around the world in order to make a sustainable contribution to society.

### Exhibit at Eco Products 2015

Our company has had exhibits at the Eco Products environmental exhibition held by Nikkei Inc. and the Japan Environmental Management Association for Industry since 2013. This exhibition is special because it is not only for business people and the general public, but also is visited by many elementary and middle school students studying social studies. Over 1,500 elementary and middle school students visited our booth at the 2015 Eco Products show, and the children were able to learn about how energy is used in the home and our efforts into developing environmentally-friendly products.



### Joined Water Heater Rack System Donated to Camp Southern Ground

In August 2015, Rinnai America donated a three piece joined water heater rack system to the Camp Southern Ground which is located on a 1.62km<sup>2</sup> piece of land near our main office. Camp Southern Ground is a NPO project launched by Grammy award-winning artist Zac Brown. The camp was created as a location for children between the age of 7 and 17 and their families to go learn about how to live a more healthy life. There are also plans to include a site where there are facilities that children with Asperger's syndrome, Tourette syndrome, autism and dyslexia can also use in the future.



### Mangrove Reforest Effort by Employees

In the past, Thailand had magnificent mangrove forests, but the effects of salt harvesting areas and shrimp harvesting has decreased its size, and recently this diverse habitat has come into danger of becoming lost. Currently, the Thailand government has been taking various initiatives to protect the forest and its ecosystem by prohibiting the cutting of mangrove trees.

On August 2, 2015, approximately 50 employees from Rinnai Thailand took part in an effort by the Ministry of Industry, Thailand to replant the area, and 150 new mangrove trees were planted.



## Support for the Restoration of the Nakagawa Canal



View north from Nagara-bashi Bridge on the Nakagawa Canal

Our head office is located near the Nakagawa Canal, and we are donating ¥10 million every year for 10 years (¥100 million in total) to the Nakagawa Canal Restoration and Cultural/Artistic Assistance Project (known for short as “Nakagawa Canal ARToC10”) set up in fiscal 2012 to restore the canal and surrounding area.



The aim of the program is to revive the district and make it a cultural and artistic hot spot by turning the canal into a venue for modern contemporary art. Now in its fourth year, the project has drawn steadily growing awareness among local residents and artists and triggered interest in the Nakagawa Canal.

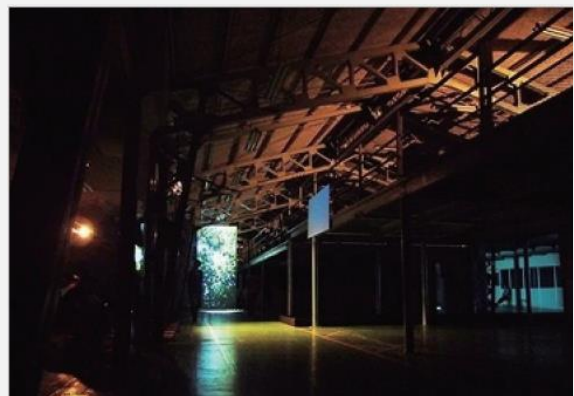
In August 2015, an event was held by the Nagoya City Center called, "Are they creating modern art at the Nakagawa canal!?" which was a PR campaign by ARToC10 at our company's previous parts center near the Nakagawa canal. A discussion session was held with Rinnai and other local companies providing support to the ARToC10 project and those receiving aid in fiscal 2015 participating in the session.

The Company has a 96 year history with our headquarters located in Nakagawa ward. Our activities at the Nakagawa canal are a way for us to give back to the local community who have warmly watched over us and helped us grow.



Filmusic in Nakagawa Canal / Summer  
by cinema skhole promoted by ARToC10

A part of the film was shot at our company's Chubu branch training center and local citizens along with some of our employees appeared in the film.



Video installation art + performance entitled “wald”  
by the artist Kei Fushiki promoted by ARToC10

Our old parts center was the scene for an artistic video presentation. Around 340 people came to view the art presentation during the two days.

## Major financial contributions and sponsorships

The Group supports events that foster international exchange in the arts and culture as well as sporting events.

### Rinnai Corporation, Actual Results in Fiscal 2016

- \* Chubu High-tech Center (CHC)
- \* Nagoya Urban Development Public Corporation (support for restoration project on the Nakagawa Canal)
- \* Nagoya Philharmonic Orchestra
- \* Nagoya School of Music, The Music Competition of Japan, Award-winning Celebration Concert
- \* Campus Venture Grand Prix, Chubu Area
- \* Nagoya *Shonen Shojo Hatsumei* Club (Invention and Innovation Youth Club)
- \* Jazz for Kids in Nakagawa
- \* *Haruhime Dochu* (Spring Queen Parade) at Nagoya Castle Culture Forum
- \* Nagoya/Los Angeles Basketball Exchange Program for the Junior High Student
- \* Special Olympics Nippon
- \* Youngsters' Science Festival
- \* Chinese Spring Festival in Nagoya
- \* Nagoya/Boston Museum of Fine Arts



## Oguchi Factory

Location	Kaechi, Oguchi-cho, Niwa-gun, Aichi
Number of employees	852 (as of March 31, 2016)
Business	Manufacture of gas equipment
Land area	48,352 m <sup>2</sup>
Total floor space	37,093 m <sup>2</sup>
Commenced operations:	1964
Acquisition of ISO14001 certification:	October 1997



### Major production items



Gas tabletop cookers



Gas built-in hobs (stovetops)



Built-in ranges



Dishwashers and others

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
452.4	68.6	5.7	29.7

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NO <sub>x</sub> emissions (t)
3,311	2.6

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
5,278.8	0.0	0.0	5,278.8	100.0

### Substances subject to the PRTR law\*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
53	Ethyl benzene	1,500.0	1,500.0	0.0	0.0	0.0	0.0	16.0
80	Xylene	2,100.0	2,100.0	0.0	0.0	0.0	0.0	33.0
296	1,2,4-trimethylbenzene	1,200.0	1,200.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	1,500.0	1,400.0	0.0	0.0	0.0	0.0	130.0
309	Nickel compounds	870.0	0.0	0.0	0.0	0.0	0.0	44.0
405	Boron compounds	2,500.0	0.0	0.0	0.0	0.0	0.0	130.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.



## Air

Equipment	Substance	Regulation value			Actual value
		National	Prefectural	Voluntary	
Baking furnace	Soot and dust	0.25	0.25	0.16	0.001
	NOx	180	180	150	88.7
Boiler	Soot and dust	0.10	0.30	0.08	0.002
	NOx	150	150	96	70.3

- Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NOx: ppm
- Actual values for NOx and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.

## Water discharge

Substance	Regulation value			Actual value		
	National	Municipal	Voluntary	Maximum	Minimum	Mean
Amount of discharge	—	—	—	378	0	116
pH	5.7 - 8.7	5.7 - 8.7	5.8 - 8.7	7.5	7.0	7.2
BOD	300	300	240	96	20	55.3
SS	300	300	240	96	17	53.9
n-Hex mineral oil	5	5	4	< 0.5	< 0.5	< 0.5
n-Hex animal & vegetable fats	30	30	24	16.0	< 0.5	8.5
Copper	3	3	2.4	0.07	0.02	0.05
Zinc	2	2	1.6	0.22	0.06	0.15
Soluble iron	10	10	8	0.60	0.10	0.18
Soluble manganese	10	10	8	N.D	N.D	N.D
Nitrogen	150	150	120	60	14	35
Phosphorus	20	20	16	8.8	1.9	4.2
Iodine consumption	220	220	176	23.0	4.4	9.6

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge standard:  
Sewer discharge standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* N.D.: Equal to or less than the minimum determination limit (undetectable)

## Environmental Initiatives

### Improving environmental friendliness by integrating press processes

We have made improvements to the die facilities used for presswork to help make our built-in hob manufacturing more environmentally friendly. Working with suppliers and numerous other stakeholders, we have adjusted how operations are laid out and raised material feed precision, resulting in shorter lead times and consolidation of storage space.

- Reduction in CO<sub>2</sub> emissions: Approx. 4 tons-CO<sub>2</sub>/year



Gas built-in hobs (stovetops)



Grill back plate

### Energy conservation patrols stepped up at Oguchi Factory

“Energy conservation patrols” are regularly conducted to check for air leaks and other problems, and action is being taken to enhance worksites’ ability to remedy issues raised by these patrols and improve energy efficiency. Improvements to operating methods and construction management are implemented with the involvement of all relevant sections so that they can be introduced throughout the company, resulting in cuts in both energy consumption and costs at plants.

- Reduction in CO<sub>2</sub> emissions: Approx. 4 tons-CO<sub>2</sub>/year (from lighting energy savings)

- Issues identified by patrols: 290 (improvements achieved in approx. 98% of cases)



Energy conservation patrols



Adoption of LED lighting



Operational changes made by individual sections

## Seto Factory

Location	Anada-cho, Seto-shi, Aichi
Number of employees	785 (as of March 31, 2016)
Business	Manufacture of gas equipment
Land area	42,649 m <sup>2</sup>
Total floor space	27,351 m <sup>2</sup>
Commenced operations	1979
Acquisition of ISO14001 certification	December 2000



### Major production items

ハイブリッド給湯器 エコワン  
ECO ONE



Hybrid water heaters with heating systems

ECO-E



Heating source for gas water heaters



Gas water heaters and others

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
650.1	59.5	24.7	14.9

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
3,879	3.1

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
1,888.3	0.0	0.0	1,888.3	100.0

### Substances subject to the PRTR law

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
53	Ethylbenzene	1,200.0	1,100.0	2.0	0.0	0.0	0.0	150.0
80	Xylene	1,800.0	1,700.0	2.0	0.0	0.0	0.0	150.0
87	Chromium and chromium (III) compounds	2,700.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	1,200.0	800	0.0	0.0	0.0	0.0	420.0
308	Nickel	4,500.0	0.0	0.0	0.0	0.0	0.0	0.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.

### Air

Equipment	Substance	Regulation value			Actual value
		National	Prefectural	Voluntary	
Boiler	Soot and dust	0.10	0.30	0.05	0.002
	NOx	150	150	79	33.9

- Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NOx: ppm
- Actual values for NOx and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.

## Water discharge

Substance	Regulation value			Actual value		
	National	Prefectural	Voluntary	Maximum	Minimum	Mean
Amount of discharge	-	-	-	86.0	4.0	48.7
pH	5.8 - 8.6	5.8 - 8.6	6.0 - 8.4	7.7	6.8	7.3
BOD	160 (120)	25 (20)	20	2.0	< 0.5	1.0
COD	160 (120)	25 (20)	20	7.5	1.5	2.9
SS	200 (150)	30 (20)	20	7.0	< 1.0	< 1.0
n-Hex mineral oil	5	2	1.6	< 0.5	< 0.5	< 0.5
n-Hex animal & vegetable fats	30	10	8	2.2	< 0.5	< 0.5
Copper	3	1	0.5	0.04	N.D.	0.02
Zinc	2	2	1	0.25	0.02	0.08
Soluble iron	10	10	2.5	0.1	N.D.	N.D.
Soluble manganese	10	10	2.5	N.D.	N.D.	N.D.
Nitrogen	120 (60)	120 (60)	30	11.00	0.24	2.43
Phosphorus	16 (8)	16 (8)	4	0.81	0.02	0.22

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge to: The Yatoko River
- Water discharge standard: River effluent standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* COD: Chemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* N.D.: Equal to or less than the minimum determination limit (undetectable)
- \* Values in parentheses are daily mean values.

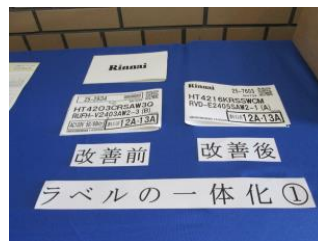
## Environmental Initiatives

### Environmental improvements targeting printing

Working with 13 plants and offices, including the printers that produce user manuals and wiring diagrams, we have extended our environmental action into the printing and logistics realms by rethinking operating procedures such as the following to reduce the impact on the environment. The changes to packaging that have resulted from these improvements have served to streamline sorting and shipping work. These environmental improvements were recognized by the award of the top “Environmental Grand Prize” under our in-house Environmental Awards Program in fiscal 2016.



Adoption of reusable packaging



Standardization of labeling



Electronic chip cover direct printing

- Reduction in CO<sub>2</sub> emissions: Approx. 42 tons-CO<sub>2</sub>/year
- Reduction in discharge of waste emissions: Approx. 22 tons/year

### Resource saving initiatives

Lathe work has been modified to enable delivery of parts processed in advance to comprise less extraneous material, with the effect that machining times have been shortened and swarf emissions have been considerably reduced



Checking the workmanship of a water supply joint

- Reduction in discharge of waste emissions: Approx. 48 tons/year

## Asahi Factory

Location	Nishiyama-cho, Owariasahi-shi, Aichi
Number of employees	257 (as March 31, 2016)
Business	Manufacture of gas equipment
Land area	17,772 m <sup>2</sup>
Total floor space	7,619 m <sup>2</sup>
Production started	1960
Acquisition of ISO14001 certification	November 2003



### Major production items



## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
145.6	16.8	2.6	4.6

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
938.2	0.7

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
577.7	0.0	0.0	577.7	100.0

### Substances subject to the PRTR law\*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
53	Ethylbenzene	5,300.0	600.0	0.0	0.0	0.0	6.0	1,200.0
80	Xylene	12,000.0	1,200.0	0.0	0.0	0.0	6.0	1,200.0
296	1,2,4-trimethylbenzene	1,500.0	120.0	0.0	0.0	0.0	6.0	260.0
300	Toluene	7,200.0	1,500.0	0.0	0.0	0.0	6.0	4,800.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.



## Air

Equipment	Substance	Regulation value			Actual value
		National	Prefectural	Voluntary	
Drying furnaces	Soot and dust	0.2	-	0.108	0.06
	NOx	230	-	200	39.2

- Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NOx: ppm
- Actual values for NOx and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.

## Water discharge

Substance	Regulation value			Actual value		
	National	Municipal	Voluntary	Maximum	Minimum	Mean
Amount of discharge	-	-	-	59	16	32.8
pH	5.7 - 8.7	5.7 - 8.7	5.9 - 8.5	7.6	6.9	7.1
BOD	300	300	210	140.0	67.0	92.7
SS	300	300	210	79.0	20.0	46.6
n-Hex mineral oil	5	5	3.5	< 0.5	< 0.5	< 0.5
n-Hex animal & vegetable fats	30	30	21	4.2	1.3	2.6
Copper	3	3	2.1	N.D.	N.D.	N.D.
Zinc	2	2	1.4	0.4	0.1	0.2
Soluble iron	10	10	7	0.3	0.1	0.3
Soluble manganese	10	10	7	N.D.	N.D.	N.D.
Nitrogen	240	240	168	56.0	29.0	43.3
Phosphorus	32	32	22.4	4.8	2.4	3.8
Iodine consumption	220	220	154	82.0	8.8	34.2

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge standard:  
Sewer discharge standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* N.D.: Equal to or less than the minimum determination limit (undetectable)

## Environmental Initiatives

### Energy saving initiatives

#### - Environmentally friendly clothes dryer manufacturing

As production demand for clothes dryers has risen, we have cut carbon dioxide emissions by making several modifications to our manufacturing processes. These include operational improvements made to existing drum processors, the elimination of the need for die changes, and the addition of auxiliary tools. These modifications have also boosted productivity by about 50%.



Addition of auxiliary tool



Clothes dryers



Inside of a drum

Reduction in CO<sub>2</sub> emissions: Approx. 16 tons-CO<sub>2</sub>/year

#### - Compressor improvements

The compressor control mechanisms used on paint lines have been modified to permit automatic shutdown. This allows operational parameters such as operating times to be flexibly changed, contributing to improved energy efficiency.

Reduction in CO<sub>2</sub> emissions: Approx. 3 tons-CO<sub>2</sub>/year

### Communicating with local communities

Our employees regularly take part in cleanup activities along commuting routes, parking lots and nearby parks.



Cleanup activities in the area surrounding the factory

## Yanagisawa Manufacturing Co., Ltd.

Location	Yanagi-machi, Kadoma-shi, Osaka
Number of employees	358 (as March 31, 2016)
Business	Manufacture of gas equipment
Land area	20,098 m <sup>2</sup>
Total floor space	19,314 m <sup>2</sup>
Commenced operations	1936
Acquisition of ISO14001 certification	June 2004



### Major production items



Commercial-use kitchen units



Commercial-use high-speed ovens



Gas rice cookers



Floor heating systems (hot-water mat)

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
201.1	34.7	0.1	5.3

### Emissions into the air

CO <sub>2</sub> emissions(t-CO <sub>2</sub> )	NOx emissions(t)
1,535	1.2

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
476.8	0.0	0.0	476.8	100.0

### Air

Equipment	Substance	Regulation value			Actual value
		National	Prefectural	Voluntary	
Boiler	Soot and dust	0.15	0.10	0.10	0.003
	NOx	150	150	150	3.1
Drying furnaces	Soot and dust	0.15	0.10	0.10	0.003

- Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NOx: ppm
- Actual values for NOx and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.

### Water discharge

Substance	Regulation value			Actual value		
	National	Municipal	Voluntary	Maximum	Minimum	Mean
Amount of discharge	-	-	-	74	49	62
pH	5.0 - 9.0	5.0 - 9.0	5.9 - 8.5	7.9	6.8	7.3
BOD	600	600	300	38.0	7.5	20.6
SS	600	600	300	32.0	2.0	20.6
n-Hex mineral oil	5	5	5	2.9	1.0	1.2
n-Hex vegetable oil	30	30	24	6.8	1.0	2.3
Zinc	2	2	2	0.8	0.1	0.4
Nitrogen	240	240	120	92.6	1.4	28.8
Phosphorus	32	32	30	16.8	0.5	3.5

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge standard:  
Sewer discharge standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* SS: Concentration of aqueous suspended solids



## Environmental Initiatives

### Environmental Initiatives

We are working day in, day out to protect the environment by engaging in continuous energy-saving activities at our plants and offices and providing regular environmental education for workers.

Some of our activities:

- Environmental patrols to eliminate air leaks (performed regularly)
- Replacement of old lights with LED ones
- Environmental education for workers (provided regularly)



Environmental patrols



LED lights installed



Regular environmental education for workers

### Resource saving initiatives

Over-sprayed paint is recovered from plant paint lines and reused to paint the rear surfaces of products.

Reduction in in waste discharge: Approx. 75 tons/year  
(including 34 tons/year reduction in paint waste)



Paint capture equipment installed

### Communicating with local communities

Our employees regularly take part in cleanup activities along commuting routes, in the area surrounding the factory and local train station Kadoma.



Employee cleanup activities

## Rinnai Technica Co., Ltd.

Location	Sakagawa, Kakegawa-shi, Shizuoka
Number of employees	583 (as of March 31, 2016)
Business	Manufacture of gas equipment
Land area	37,741 m <sup>2</sup>
Total floor space	11,716 m <sup>2</sup>
Commenced operations	1970
Acquisition of ISO14001 certification	December 2003



### Major production items:



Gas water heaters



Gas instant-heating hot-water heaters



Gas water heaters for overseas market

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
294.9	450.0	12.8

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
2,496	2.2

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
1,013.8	5.7	0.0	1,008.1	99.4

### Water discharge

Substance	Regulation value			Actual value		
	National	Prefectural	Voluntary	Maximum	Minimum	Mean
Amount of discharge	—	—	—	143.0	2.0	61.3
pH	5.8 - 8.6	—	6.3 - 8.1	7.7	7.0	7.4
BOD	160 (120)	25 (20)	20 (15)	14.0	2.6	6.6
COD	160 (120)	—	20 (15)	9.6	1.7	5.7
SS	200 (150)	50 (40)	30 (20)	7.8	2.0	3.5

■ The unit of the amount of discharge is m<sup>3</sup>/day

■ The values are expressed in mg/L except for pH

■ Water discharge to: The Ohta River

■ Water discharge standard:

River effluent standard

\* pH: Concentration of hydrogen ions

\* BOD: Biochemical oxygen demand

\* COD: Chemical oxygen demand

\* SS: Concentration of aqueous suspended solids

\* Values in parentheses are daily mean values.

## Environmental Initiatives

### Energy saving initiatives

We are actively promoting a more environmentally-conscious and safe factory design in conjunction with establishing our new factory.

- Shortening the distance required to move items inside the factory (Reorganizing the layout of equipment and assembly line)
- Shortening the operating time of the compressor
- Proactively installing LED lighting
- Efficiently using air conditioning (optimization)



LED lights installed

Reduction in power consumption:      Approx. 64,000 kWh/year  
 Reduction in CO<sub>2</sub> emissions:              Approx. 24 tons-CO<sub>2</sub>/year

\*Calculation of benefits by improving the compressor and installing LED lighting

### Action to save water

Excess supply of cooling water to the cooling towers used by brazing furnaces has been eliminated by controlling water level, resulting in substantially lower water consumption.



Automatic changeover valve

Reduction in water consumption:      Approx. 1,500 m<sup>3</sup>/year

### Communicating with local communities

We regularly pick up litter in the areas around Kakegawa Station and Kakegawa Castle, as part of the “Small Kindness” movement. Total participants to date: 34



Group photo of participants



Cleanup activities

## RB Controls Co., Ltd.

Location	<b>Head office:</b> Kannondo-machi, Kanazawa-shi, Ishikawa <b>Kanaiwa Factory:</b> Kanaiwa Higashi, Kanazawa-shi, Ishikawa <b>Tsurugi Factory:</b> Oyanagi-machi, Hakusan-shi, Ishikawa
Number of employees	678 (as of March 31, 2016)
Business	Manufacture of gas equipment components
Land area	Head office:3,691 m <sup>2</sup> , Kanaiwa:6,587 m <sup>2</sup> , Tsurugi: 17,636 m <sup>2</sup>
Total floor space	Head office:2,892 m <sup>2</sup> , Kanaiwa:5,890 m <sup>2</sup> , Tsurugi: 10,495 m <sup>2</sup>
Commenced operations	1971
Acquisition of ISO14001 certification	March 2006



Head office



Kanaiwa Factory



Tsurugi Factory and Distribution Center

### Major production items



Electronic control units



High voltage units



Bathroom waterproof TV



Bathroom LED lights and others

## Data on Environmental Load by Site (Total amount of the Head office, Kanaiwa Factory and Tsurugi Factory)

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
531.6	2.0	273.4	21.1

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NO <sub>x</sub> emissions (t)
2,928	2.5

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
398.7	14.1	4.1	380.4	95.4

### Substances subject to the PRTR law\*

#### Kanaiwa Factory

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
31	Antimony and its compounds	2,400.0	0.0	0.0	0.0	0.0	0.0	2,400.0
265	Tetrahydromethylphthalic anhydride	17,000.0	0.0	0.0	0.0	0.0	0.0	17,000.0
448	Methylenebis (4,1-phenylene) diisocyanate	2,970.0	0.0	0.0	0.0	0.0	0.0	0.0
460	Tritolyl phosphate	2,950.0	0.0	0.0	0.0	0.0	0.0	2,900.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.



**Substances subject to the PRTR law\***

Tsurugi Factory

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
186	Methylene dichloride	2,790.0	0.0	0.0	0.0	0.0	0.0	2,800.0
448	Methylenebis (4,1-phenylene) diisocyanate	31,000.0	0.0	0.0	0.0	0.0	0.0	0.0
460	Tritolyl phosphate	42,500.0	0.0	0.0	0.0	0.0	0.0	42,000.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.

**Environmental Initiatives**

**Environmental awareness initiatives**

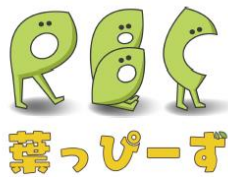
We are using our specially designed family of leaf-like environmental characters, the “*Happies*,” to popularize action to protect the environment.

(\*) Origin of the *Happies*: Created from a combination of the company name (“RBC”) and the image of a leaf, the *Happies* walk around to symbolize the gradual journey towards a more environmentally friendly future.

One of the environmental activities undertaken in the office sector in fiscal 2015 was to consolidate and reduce the number of servers, from 11 to 3, used by the server system that manages day-to-day information. This has cut energy consumption and also reduced installation space requirements.



Increasing greenery in the workplace



Our own unique characters the *Happies*

Effect of consolidating servers

Reduction in CO<sub>2</sub> emissions: Approx. 16 tons-CO<sub>2</sub>/year

**Courtyard gardening to foster environmental communication**

As part of our efforts to protect the environment, we are creating “courtyard gardens” at plants and offices to provide relaxing spaces that bring a bit of nature into people’s everyday lives.

Use of these gardens as rest spots has also resulted in increased communication between employees in different departments, and we aim to continue to create spaces of this kind where people can experience nature in order to further the preservation of biodiversity.



Pathway of crushed roof tiles



Bird box



Cherry trees lining the path

**Design and popularization of environmentally friendly products (bathroom lighting)**

We have developed and are promoting the adoption of a lighting system that makes bathrooms more relaxing. It is the industry’s first bathroom lighting system to be color variable and operable by wireless remote control. By rolling out the waterproof remote control and dimmer/color control technologies developed for this system to similar products in the future, we aim to make bathrooms more environmentally friendly.

Two industry’s firsts embodied by our new bathroom lighting system:

- Color variable
- Wireless remote control

CO<sub>2</sub> reduction per set: 4 kg-CO<sub>2</sub>/set



Bathroom lighting systems

## Rinnai Precision Co., Ltd.

Location	<b>Head office and Komaki Factory:</b> Shimobata, Oaza Honjo, Komaki-shi, Aichi <b>Kani Factory:</b> Himegaoka, Kani-shi, Gifu
Number of employees	644 (as of the end of March 2016)
Business	Manufacture of gas equipment components
Land area	Head office and Komaki Factory: 20,303 m <sup>2</sup> Kani Factory: 10,341 m <sup>2</sup>
Total floor space	Head office and Komaki Factory: 20,202 m <sup>2</sup> Kani Factory: 5,944 m <sup>2</sup>
Commenced operations	1979
Acquisition of ISO14001 certification	December 2005



Head office and Komaki Factory



Kani Factory

### Major production items:



Gas cock parts



Gas valve parts



Gas control units



Solenoid water valve and others

## Data on Environmental Load by Site (Total amounts of Head office, Komaki Factory and Kani Factory)

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
1,415.0	138.0	80.4	77.8

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NO <sub>x</sub> emissions (t)
8,803	6.9

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
2,241.5	9.3	0.0	2,232.2	99.6

### Water discharge

#### Head office, Komaki Factory

Substance	Regulation value			Actual value		
	National	Municipal	Voluntary	Maximum	Minimum	Mean
Amount of discharge	-	-	-	20	4	11
pH	5.7 - 8.7	5.7 - 8.7	6.0 - 8.4	7.4	6.8	7.1
BOD	300	300	300	230.0	20.0	122.8
SS	300	300	300	8.0	1.0	2.4

■ The unit of the amount of discharge is m<sup>3</sup>/day

■ The values are expressed in mg/L except for pH

■ Water discharge standard:

Sewer discharge standard

\* pH: Concentration of hydrogen ions

\* BOD: Biochemical oxygen demand

\* SS: Concentration of aqueous suspended solids



## Kani Factory

Substance	Regulation value			Actual value		
	National	Written agreement	Voluntary	Maximum	Minimum	Mean
Amount of discharge	-	-	-	20	5	12
pH	5.8 - 8.6	5.8 - 8.6	5.8 - 8.6	7.5	6.6	7.0
BOD	160 (120)	15	15	24.0	0.7	4.7
COD	160 (120)	30	30	4.7	4.7	4.7
SS	200 (150)	30	30	17.0	1.0	5.4

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge to: The Kani River
- Water discharge standard: River effluent standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* COD: Chemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* Values in parentheses are daily mean values.

\*A water analysis of wastewater at the Kani Factory detected BOD in excess of the benchmark established by agreement with the Kani Industrial Park Association. The source was identified and remedial action taken, following which the results of a water analysis showed that BOD is now back within the voluntary limit.

## Environmental Initiatives

### Energy saving initiatives

- Cast melting furnaces make up around 30% of the energy consumed at Rinnai Precision because of the gas consumed by the furnaces. Upon examining and analyzing the wasted energy, we discovered it tended to run empty because of a lack of materials. Operational measures were implemented to prevent this waste of resources that led to a reduction in energy consumed. This also led to maintenance being performed on equipment that controlled the occurrence of oxidized material on the furnace walls, as an example.



Cast melting furnaces

Reduction in gas consumption:      Approx. 40,000 m<sup>3</sup>/year  
 Reduction in CO<sub>2</sub> emissions:      Approx. 93 tons-CO<sub>2</sub>/year

- A switch was made from an existing volute pump for supplying coolant for the washer to a multi-stage pump. This satisfied the necessary water pressure and amount of water for the washer while reducing the amount of energy consumed. We were also able to save space and ensure power thanks to the multi-stage pump.



Reduction in power consumption:      Approx. 33,000 kWh/year  
 Reduction in CO<sub>2</sub> emissions:      Approx. 12 tons-CO<sub>2</sub>/year

### Resource saving initiatives

- Efforts to reuse unnecessary items  
 As one of our efforts to efficiently use resources, we don't demolish unneeded equipment and instead disassemble and selectively store reusable parts. Furthermore, a database has been created so that anyone can use the equipment or when creating jigs.



Inventory management

### Communicating with local communities

As a member of the environmental committee at the Kani Industrial Park Union, we have implemented various efforts.

- Walking around the environment at companies the association is responsible (five companies/year)
- Attending environmental committees (twice a year)
- Participating in events to clean up the local area



Environmental patrol

## RT Engineering Co., Ltd.

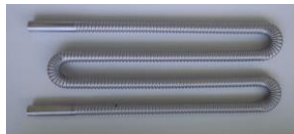
Location	Kamiike-cho, Toyota-shi, Aichi
Number of employees	198 (as of March 31, 2016)
Business	Manufacture of gas equipment and components
Land area	12,199 m <sup>2</sup>
Total floor space	7,026 m <sup>2</sup>
Commenced operations	1950
Acquisition of ISO14001 certification	March 2006



### Major production items



Machined copper pipe part



Machined stainless steel part



Machined iron pipe parts



## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
216.5	13.0	3.7	17.1

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
1,159	1.0

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
621.2	5.9	0.0	615.4	99.1

### Water discharge

Substance	Regulation value			Actual value		
	National	Municipal	Voluntary	Maximum	Minimum	Mean
Amount of discharge	—	—	—	16.5	—	16.0
pH	5.0 - 9.0	5.7 - 8.7	5.7 - 8.0	8.1	6.5	7.1
BOD	600	300	150	8.5	0.8	2.3
SS	600	300	150	8.0	1.0	2.0
n-Hex mineral oil	5	5	2.5	1.9	0.5	0.6
Nitrogen	240	150	15	0.93	0.75	0.84
Phosphorus	32	20	10	14	0.02	1.38

■ The unit of the amount of discharge is m<sup>3</sup>/day

■ The values are expressed in mg/L except for pH

■ Water discharge standard:

Sewer discharge standard

\* pH: Concentration of hydrogen ions

\* BOD: Biochemical oxygen demand

\* SS: Concentration of aqueous suspended solids

\*Wastewater analysis detected pH and phosphorus levels in excess of our voluntary limits. Working with a testing laboratory, we identified the sources and took remedial action. Since then, the results of water analysis have shown that water quality has remained within voluntary limits.

## Environmental Initiatives

### Resource saving initiatives

We have reduced reject rates during the manufacture of water heater parts by altering machining methods and the sequence of processes. Eliminating the cutting process has in addition lowered energy consumption and reduced swarf emissions to zero.

Reduction in electricity consumption:	Approx. 6,700 kWh/year
Reduction in CO <sub>2</sub> emissions:	Approx. 2 tons-CO <sub>2</sub> /year
Reduction in waste (swarf) emissions:	Approx. 9 tons/year



Water heater component (connecting pipe)



Swarf produced conventionally

### Resource saving initiatives

As part of our activities to save water, we have rethought how water is fed to painting pretreatment and parts cleaning processes. The result has been an approximately 60% reduction in water consumption compared with before the changes.

Alongside this, we have adopted a method of treating wastewater at our wastewater treatment plants that is consistent with the quantity emitted, boosting wastewater risk control and cutting sludge emissions during treatment.

Reduction in water consumption:	Approx. 630 tons/year (down 60% from before changes)
Reduction in sludge emissions:	Approx. 43 tons/year



Wastewater treatment plant

### Communicating with local communities

We have organized factory tours for local junior high school children to provide real-world opportunities for them to learn about topics such as the basics of manufacturing and concern for quality and the environment.



Tour of assembly building



Junior high school students asking questions

## Japan Ceramics Co., Ltd.

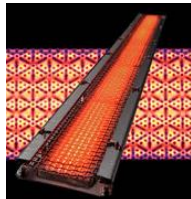
Location	Himegaoka, Kani-shi, Gifu
Number of employees	88 (as of March 31, 2016)
Business	Manufacture of gas equipment components
Land area	8,030 m <sup>2</sup>
Total floor space	5,756 m <sup>2</sup>
Commenced operations	1981
Acquisition of ISO14001 certification	January 2006



### Major production items



Ceramic plates for burners



Industrial burners



Functional coatings

### Data on Environmental Load by Site

#### Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
183.0	481.1	3.4

#### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
2,144	1.9

#### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
302.2	68.1	0.0	234.1	77.5

#### Substances subject to the PRTR law\*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
53	Ethylbenzene	1,800.0	1,500.0	0.0	0.0	0.0	0.0	310.0
80	Xylene	2,500.0	2,100.0	0.0	0.0	0.0	0.0	400.0
300	Toluene	11,700.0	11,000.0	0.0	0.0	0.0	0.0	1,300.0
412	Manganese and its compounds	1,700.0	0.0	0.0	0.0	0.0	0.0	1,700.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.

#### Air

Equipment	Substance	Regulation value			Actual value
		National	Written agreement	Voluntary	
Baking furnace	Soot and dust	0.2	0.125	0.125	0.041
	NOx	400	90	90	18
	SOx	0.49	0.25	0.25	0.01

■ Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NOx: ppm  
SOx: m<sup>3</sup>N/h

■ Actual values for NOx, SOx, and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.



## Water discharge

Substance	Regulation value			Actual value		
	National	Written agreement	Voluntary	Maximum	Minimum	Mean
Amount of discharge	—	—	—	10.4	4.0	7.1
pH	5.8 - 8.6	5.8 - 8.6	5.8 - 8.6	7.4	6.9	7.2
BOD	160 (120)	15 (10)	15	7.8	7.8	7.8
COD	160 (120)	—	30	12.0	0.5	5.1
SS	200 (150)	30 (25)	30	14.0	1.0	6.0

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge to: The Kani River
- Water discharge standard: River effluent standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* COD: Chemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* Values in parentheses are daily mean values.

## Environmental Initiatives

### Energy saving initiatives

- Environmental impact mitigated by installing infrared bake and dry ovens  
 Grill plate paint used to be bake dried using gas hot-air blowers on a separate line. By installing infrared ovens on the same line, however, we have succeeded in shortening baking times, raising productivity, and lowering carbon dioxide emissions.

Reduction in CO<sub>2</sub> emissions: Approx. 102 tons-CO<sub>2</sub>/year  
 (Approximately 70% reduction compared with previous system)



Baking oven

### Communicating with local communities

We participate in local cleanup activities along the Kani River. Our staff members regularly conduct cleanup activities along commuting routes and in the area surrounding the factory.  
 (A total of 48 staff members have participated in these activities.)



Cleanup activities along the Kani River



Cleanup activities along commuting routes



Greening activities are also undertaken by company volunteers.  
 (A total of 6 staff members have participated in the activities.)



Greening work in progress

## Noto Tech Co., Ltd.

Location	Nakanoto-machi, Kashima-gun, Ishikawa
Number of employees	195 (as of March 31, 2016)
Business	Manufacture of gas equipment components
Land area	23,152 m <sup>2</sup>
Total floor space	13,773 m <sup>2</sup>
Commenced operations	1990
Acquisition of ISO14001 certification	January 2007



### Major production items



Enamel components



Gloss enamel countertop



Resin components



Remote controller for bath filling systems

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl (crude oil equivalent))
229.4	996.1	7.6

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NO <sub>x</sub> emissions (t)
3,875	3.5

### Discharge of waste

Amount of waste generated (t)	Amount of waste into landfill (t)	Amount of intermediate processing of waste (t)	Amount of recycled waste (t)	Recycling percentage (%)
2,119	371	47	1,700	80.3

### Substances subject to the PRTR law\*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			a. Emissions into the air	b. Discharge into public waters	c. Discharge into the soil at the relevant office (except d.)	d. Landfill at the relevant office	a. Transfer to sewers	b. Transfer outside the relevant office (except a.)
31	Antimony and its compounds	10,200.0	0.0	0.0	0.0	0.0	0.0	0.0
71	Ferric chloride	5,650.0	0.0	0.0	0.0	0.0	0.0	0.0
309	Nickel compounds	1,750.0	0.0	3.0	0.0	0.0	0.0	820.0
405	Boron compounds	12,100.0	0.0	300	0.0	0.0	0.0	5,500.0

\*The Class I Designated Chemical Substance regulated by Pollutant Release and Transfer Register (PRTR) Law.

### Air

Equipment	Substance	Regulation value			Actual value
		National	Prefectural	Voluntary	
Baking furnace	Soot and dust	0.25	0.25	0.22	< 0.001
	NO <sub>x</sub>	180	180	160	30

- Units of regulation values  
Soot and dust: g/m<sup>3</sup>N  
NO<sub>x</sub>: ppm
- Actual values for NO<sub>x</sub> and soot/dust indicate the maximum measurements versus the regulation values for the relevant type of equipment.



## Water discharge

Substance	Regulation value			Actual value		
	National	Written agreement	Voluntary	Maximum	Minimum	Mean
Amount of discharge	—	—	—	70	50	60
pH	5.8 - 8.6	5.8 - 8.2	6.0 - 8.2	7.1	6.9	7.0
BOD	160 (120)	40 (30)	36 (27)	27.0	2.0	9.8
COD	160 (120)	—	140 (100)	39.0	12.0	17.7
SS	200 (150)	40 (30)	36 (27)	3.0	1.0	2.2

- The unit of the amount of discharge is m<sup>3</sup>/day
- The values are expressed in mg/L except for pH
- Water discharge to: The Nagaso River
- Water discharge standard: River effluent standard
- \* pH: Concentration of hydrogen ions
- \* BOD: Biochemical oxygen demand
- \* COD: Chemical oxygen demand
- \* SS: Concentration of aqueous suspended solids
- \* Values in parentheses are daily mean values.

## Environmental Initiatives

### Energy saving initiatives

A high efficiency boiler was adopted to reduce energy use in conjunction with updating the equipment.

Reduction in CO<sub>2</sub> emissions: Approx. 60 tons-CO<sub>2</sub>/year  
(Switched the fuel from kerosene to gas)



Boiler

### Pollution prevention initiatives

- Emergency drills

We conduct emergency drills so people know what to do in case of an accident, and are reviewing the manuals that stipulate response procedures. In order to minimize environmental risks, we conduct equipment inspections and take other preventive measures.



Emergency drill





### Communicating with local communities

We organize factory tours for local high school students. We also offer 10-day work experience programs in which participants learn the basics of manufacturing as well as about how we continually pursue quality and environmental friendliness. Participants: 80



A tour of the manufacturing process for gas stove components

## Techno Parts Co., Ltd.

Location	<b>Head office:</b> Fukuzumi-cho, Nakagawa-ku, Nagoya-shi, Aichi		
<b>Ichinomiya Office:</b> Nishiougaido Aza Toukouji, Ichinomiya-shi, Aichi Land area: 2,003 m <sup>2</sup> , building floor space: 1,455 m <sup>2</sup>	<b>Ida Office:</b> Ida-cho, Owariasahi-shi, Aichi Land area: 4,127 m <sup>2</sup> , building floor space: 2,549 m <sup>2</sup>		
			
<b>Akatsuki Office:</b> Akatsuki-cho, Seto-shi, Aichi Land area: 33,333 m <sup>2</sup> , building floor space: 3,029 m <sup>2</sup>	<b>Komaki Office:</b> Oaza Mitsubuchi, Komaki-shi, Aichi Land area: 2,611 m <sup>2</sup> , building floor space: 1,776 m <sup>2</sup>		
			
<b>Asahi Office:</b> Land area: 206.69 m <sup>2</sup> *In Asahi Factory (assembly section)			
Number of employees	400 (as of the end of March 2016)		
Business	Assembly and processing of components of heat-energy appliance		
Acquisition of Eco Action 21	July 2011		
Major production items	Components of gas equipment and home electric appliances		

## Data on Environmental Load by Site

### Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m <sup>3</sup> )	LP gas (t)	Other fuels (kl) (crude oil equivalent)
55.1	3.4	0.5	0.0

### Emissions into the air

CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	NOx emissions (t)
285	0.2

### Discharge of waste

Amount of waste generated (t)
66.9

## Environmental Initiatives

### Energy saving initiatives

#### - Green curtain initiatives

As an energy-saving measure in the summer, we grow “green curtains,” which absorb carbon dioxide during plant photosynthesis, shield the strong sunlight from coming into the office, and reduce the load on air conditioners. [Seedling] Bitter gourds



A green curtain



Bitter gourds are harvested and distributed to employees

#### - Installing motion sensors

We have installed motion sensors in lavatories and changing rooms to prevent the lights from staying on when people forget to turn them off.



Motion sensor

### Concern for the Water

Each office implements a variety of measures to save water.

- (1) Using rainwater to water our plants and flowers, as well as in our cleanup activities
- (2) Taking measures to prevent the leakage of water by replacing the float valve in toilet tanks
- (3) Installing sensors on faucets to prevent employees from forgetting to turn off the faucet (water)



(1) Rainwater tanks



(2) Replaced the toilet tank float valves



(3) Saved water by installing sensors