

Rinnai



CSR Report

2017

Corporate
Social
Responsibility
Report 2017

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Supplemental Data:

1. Oguchi Factory	7. Rinnai Precision Co., Ltd.
2. Seto Factory	8. Rinnai Precision Co., Ltd.
3. Asahi Factory	9. RT Engineering Co., Ltd.
4. Yanagisawa Manufacturing Co., Ltd.	10. Japan Ceramics Co., Ltd.
5. Rinnai Technica Co., Ltd.	11. Noto Tech Co., Ltd.
6. GASTAR Co., Ltd.	12. Techno Parts Co., Ltd.

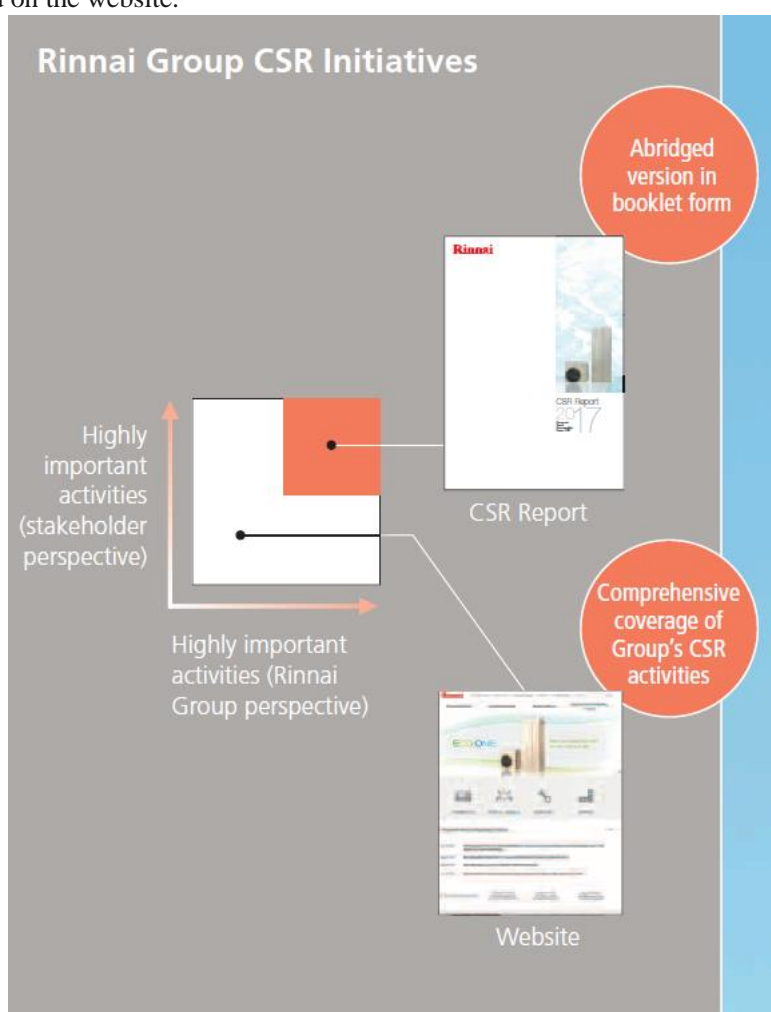
CSR Report 2017

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 2017—April 1, 2016, to March 31, 2017—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 (2012),

issued by Japan's Ministry of the Environment Environmental Accounting Guidelines (2005), issued by Japan's Ministry of the Environment

Publication Schedule

August 2017 (Japanese version), previous: September 2016, next: August 2018 (planned)

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Message from the President

As a comprehensive heat-energy appliance manufacturer, we will help create a sustainable society while promoting transparent management.

Performance impacted by yen's appreciation despite healthy results overseas

Looking at world markets in recent years, economic growth in China and other emerging nations has continued to slow down. In Europe, moreover, the outlook is hard to predict since the United Kingdom's decision to exit the European Union and the election of President Trump in the United States. As for Japan, the economy is showing a moderate recovery trend, buoyed by improved employment and income conditions and a turnaround in personal consumption.

Fiscal 2017, ended March 2017, was the second year of our medium-term business plan, entitled "Evolution and Succession 2017", which began in April 2015. For the year, consolidated net sales amounted to ¥330.2 billion, up 3.2% from fiscal 2016, and operating income totaled ¥34.0 billion, down 1.6%. Unfortunately, we did not reach our targets for the year.

In Japan, we reported increased sales of standalone water heaters, rather than the high-value-added water heaters that had generated sales growth in the past. We believe our performance was impacted by intensified competition among manufacturers due to energy market deregulation. Overseas, however, foreign exchange factors stemming from the yen's appreciation had a negative impact on our performance. This was despite steady business growth in various regions. In the United States, for example, we benefited from the ongoing shift from conventional tank-based water heaters to high-efficiency gas tankless models, and in China we enjoyed healthy sales of gas appliances thanks to the development of gas infrastructure in regional cities.

In fiscal 2018, the final year of the medium-term business plan, we are targeting consolidated net sales of ¥340 billion (up 3.0% year on year) and operating income of ¥37 billion (up 8.6%).



Hiroyasu Naito, President

Promoting spread of *ECO ONE* high-efficiency gas water heaters to reduce CO₂ emissions from homes

In fiscal 2017, we focused on two priority CSR areas: (1) environmental initiatives aimed at reducing energy consumption and CO₂ emissions; and (2) safety and peace of mind initiatives to enhance consumer safety and product quality.

During the year, we sought to expand sales and further increase the efficiency of our *ECO ONE* systems, which combine a high-efficiency gas water heater with an electric heat pump, while focusing on proliferation of *Eco Jozu* and other high-efficiency gas water heaters. We first launched *ECO ONE* in 2010. In 2014, the model sold at that time received the top energy conservation award (METI Award) in the Energy Conservation Awards hosted by the Energy Conservation Center, Japan (ECCJ). Since then, we have made improvements in various areas, such as environmental performance, construction, and ease of installation, and in January 2017 *ECO ONE* received the ECCJ Chairman's Award. Moreover, we have been receiving inquiries about *ECO ONE* from people who have not dealt with us in the past, due to expansion of sales channels associated with deregulation of Japan's electricity and gas sectors. This is a good sign for *ECO ONE*'s popularization. We will continue working to help reduce CO₂ emissions from homes.

Regarding safety and peace of mind initiatives, we have stepped up our response to Japan's "long-term use product safety inspection system" and taken action to reduce bathroom accidents caused by the "heat shock" phenomenon. We will continue these efforts going forward.

The aforementioned initiatives are not limited to Japan. In the United States, for example, we are working to expand sales of high-efficiency gas water heaters, and in China we are implementing rigorous maintenance education programs for local installation companies. In Vietnam, as well, we are pursuing initiatives based on local considerations, such as selling gas stoves equipped with self-extinguishing safety devices.

In other initiatives, our various operations in Japan and overseas conduct their own community-focused activities, and since 2012 we have provided ongoing support for the Nakagawa Canal Restoration and Cultural/Artistic Assistance Project (Nakagawa Canal ARToC10) in Nagoya as part of our community contribution efforts.

Focus on establishing environments conducive to correct human and organizational behavior to ensure thorough corporate governance and legal compliance

In recent years, excessive employee working hours and internal governance have become major issues in Japan. From an early stage, the Rinnai Group has focused on reducing overtime hours, supporting the mental health of employees, promoting the advancement of female employees, and other areas. These efforts have been highly acclaimed. For example, Rinnai Corporation has been included in the 2017 Health and Productivity Company.

With respect to governance, we have also worked to strengthen our management structure by appointing two outside directors. In addition to simply establishing mechanisms for governance, compliance, and employee workability, however, it is important to ensure that the systems in place are functioning properly. We aim to advance our company by promoting management transparency and emphasizing operational functionality. 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 communities, we will also strive to create a sustainable society.



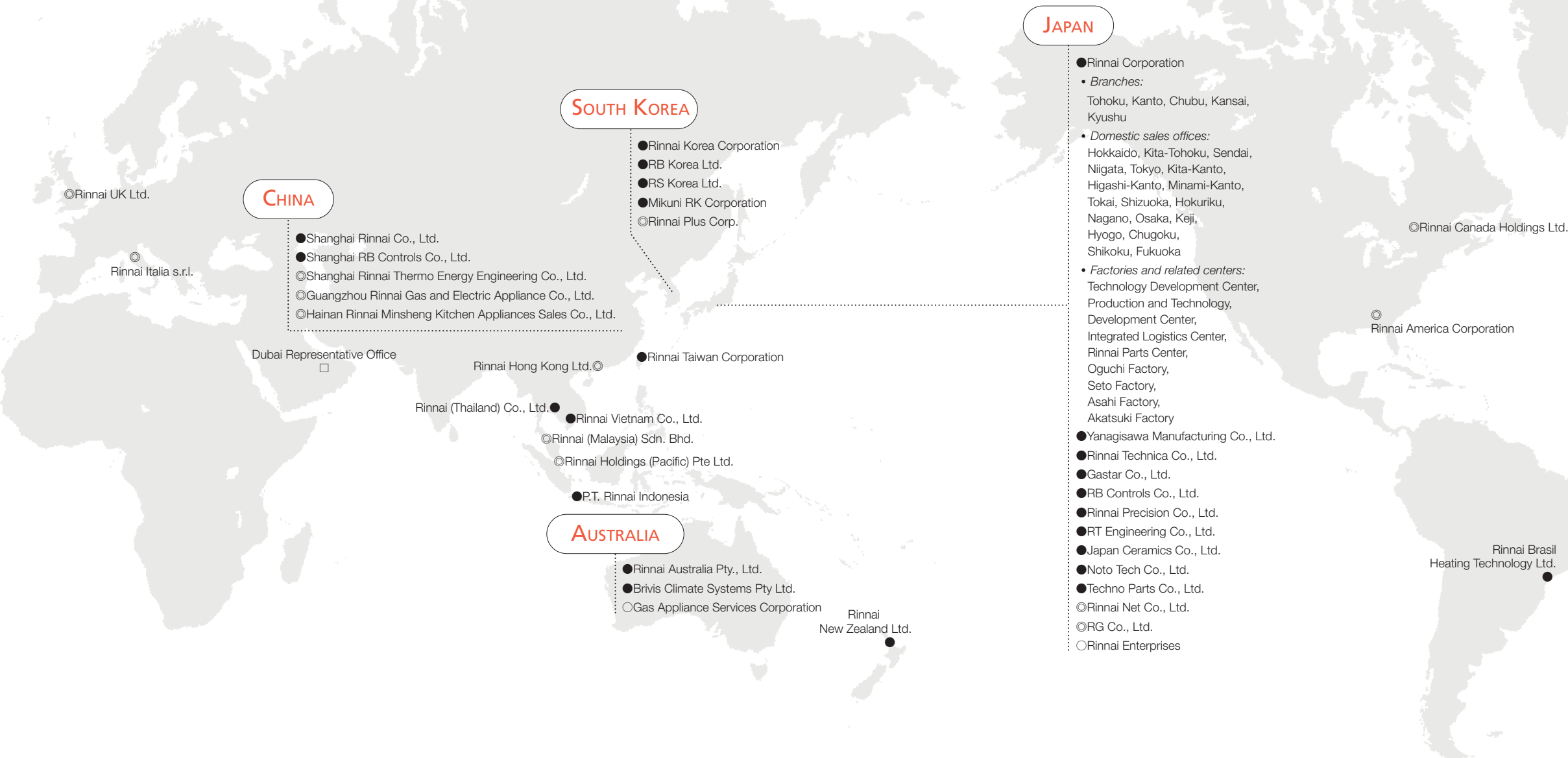
ECO ONE hybrid water heater
with heating systems



High-efficiency gas water heater
(United States)

Rinnai Worldwide

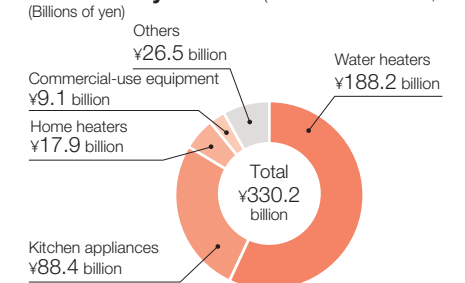
● Manufacturing and sales companies ◎ Sales companies ○ Other Business □ Overseas representative Office



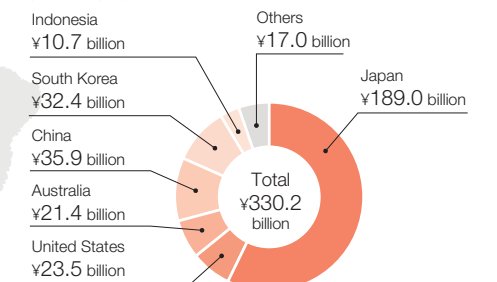
Corporate Data (As of March 31, 2017)

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: 10,512 (consolidated), 3,642 (non-consolidated)
 Number of Group companies: 45 (domestic 15, overseas 30)

Net Sales by Product (Year ended March 31, 2017)

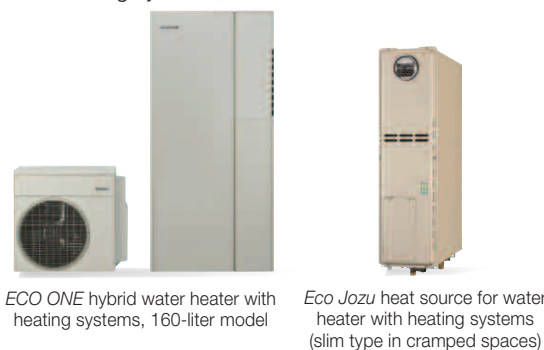


Net Sales by Region (Year ended March 31, 2017)



Water Heaters and Heating Systems

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



Kitchen Appliances

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



Home Heaters

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



Commercial-Use Equipment, Others

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



Corporate Mission and Vision

Fundamental Concepts

Quality is our destiny

Company Motto



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Harmony:
Develop personal character of the highest caliber

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Spirit:
Base your efforts on a consistent philosophy

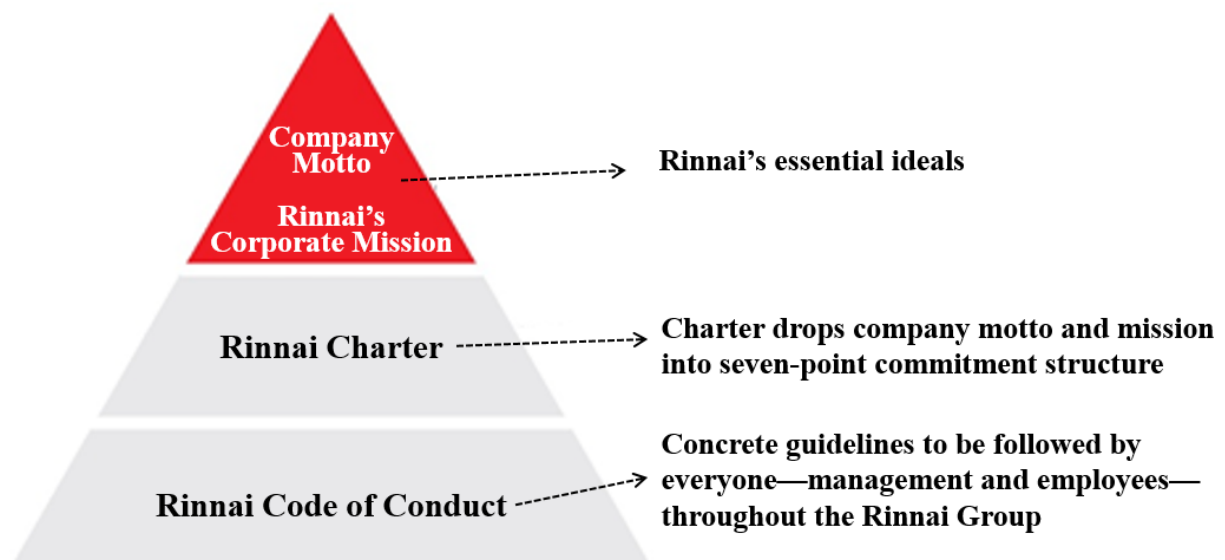
真

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



Rinnai Charter, Seven-Point Commitments

The Rinnai Charter frames the company motto and mission into a seven-point commitment structure

1. We are committed to keeping our customers first and foremost in our minds with our policy of “Quality is our destiny.”
2. We are committed to pursuing safety, comfort, and convenience, and to providing products that help to preserve the global environment.
3. We are committed to acquiring and utilizing expertise in heating to improve our customers’ quality of life.
4. We are committed to strengthening the relationship between Japanese and overseas Rinnai Group members and to working for each other’s prosperity.
5. We are committed to enhancing the prosperity of the communities that we belong to and to building a reputation as trustworthy and responsible members of society.
6. We are committed to operating under the principles of harmony, spirit and sincerity, and to growing our company by ensuring the prosperity of society.
7. We are committed to acting in compliance with the law and to adhering to ethics as responsible members of society.

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.

Heat and Lifestyles	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.
Quality	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.
Contributing to Local Communities	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.

Medium-Term Business Plan, “Evolution and Succession 2017”

(April 2015–March 2018)

“Evolution and Succession 2017” 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.

Challenge toward Evolution	Succession of Rinnai Spirit
1. Respond to changing environment 2. Pursue core priorities aimed at evolution 3. Reform business model	1. Key Theme “Heat and comfortable lifestyles” 2. “Quality is our destiny” 3. Contributing to local communities

Year ended March 31	Fiscal 2016 (actual)	Fiscal 2017 (actual)	Fiscal 2018 (plan)
Net sales	¥319.9 billion	¥330.2 billion	¥340.0 billion
Operating income	¥34.5 billion	¥34.0 billion	¥37.0 billion
Operating margin	10.8%	10.3%	10.9%

[Evolution of 4 Business Models]

Domestic business model



Strengthen ECO ONE production system (New wing at Akatsuki factory)



ECO ONE hybrid water heater with heating systems

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

Gas appliance peripherals business model (Japan)

Range hood



Kitchen



Dishwasher/dryer

Floor heating



Living room



Hot-water-based room heater

Bathroom heater/dryer



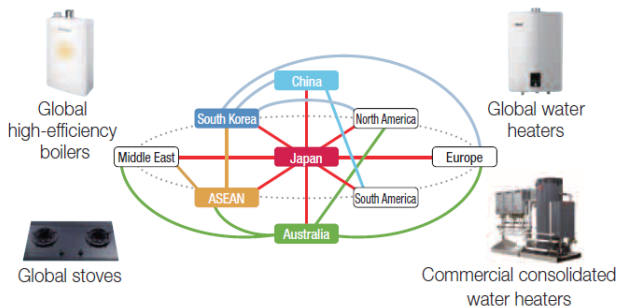
Bathroom



Bathroom remote control

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

Overseas business model



Build an overseas network model for product design/development and production technologies, in which our various overseas operations mutually deploy their strengths

New domains business model

Core strong technologies

Electronic control	Fluid control	High-pressure generation
Ceramics	Heat-resistant surface treatment	Water resistance

Uncover everyday lifestyle needs

Environment and energy efficiency	Health and purification	Support for elderly	Improved convenience
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Apply core technologies amassed in gas appliance production and deploy strengths in *monozukuri* to benefit people's lives

Aims » Major steps forward as a comprehensive heat energy appliance brand in the lead-up to 2020 (Rinnai's 100th anniversary)

► Product vision

Comprehensive heating appliance manufacturer that delivers environmentally responsible products

► Regional vision

Global company that improves the lifestyles of people all over the world

► Business vision





Company with a unique business model that attracts people and business partners

Rinnai Group CSR

Approach to CSR

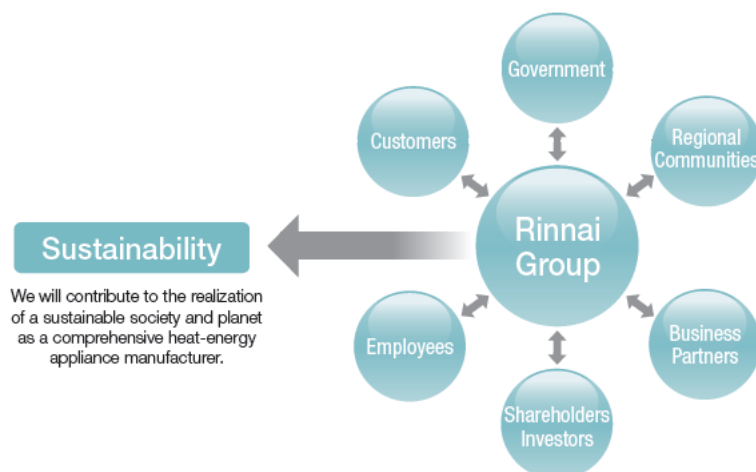
The Rinnai Group's corporate mission is to use heat to provide society with comfortable lifestyles. With this in mind, we deliver heat-energy appliances with excellent features in terms of safety and peace of mind, comfort, and the environment. We seek to improve lifestyle cultures of people around the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

Environment 	<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>
Heat and Lifestyles 	<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>
Quality 	<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>
Contributing to Local Communities 	<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.



Quality Policy

Based on our fundamental concepts, “Quality is our destiny,” our group employees strive to improve design quality, manufacturing quality and sales quality in order to achieve “Quality Policy” with the customer first.

Quality Policy
To provide products with satisfaction and a high level of safety to customers
Customer-orientation
To offer products with safety and peace of mind To disseminate safe usage An enriched service body

We are embedding a culture of safety throughout the Group by rigorously promoting customer-centric thinking, product safety, and legal compliance through initiatives guided by our voluntary action plan on product safety.

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.”

Environmental Policy (March 28, 2016)
<ol style="list-style-type: none"> 1. We will promote activities to protect the environment by accurately identifying the effects that heating appliances, including hot-water units, kitchen appliances and room heating appliances, as well as associated product development and production activities and sales and service activities have on the environment and by establishing environmental objectives and targets as well as programs that consider biodiversity, prevent environmental pollution, mitigate the effects of climate change and adapt to climate change, and reduce environmental impact. 2. We will abide by environment-related laws and regulations in addition to our own self-established standards. 3. We will conduct eco-minded materials procurement (E-Procurement) and manufacture environmentally conscious products (E-Products) at environmentally sustainable factories and offices—E-Factory and E-Office—underpinned by a high level of environmental awareness among employees (E-Mind), and through product sales and service activities that minimize impact on the environment (E-Marketing and E-Service), we will implement initiatives to prevent global warming—that is, save energy—and also effectively utilize resources, reduce waste and boost recycling, while working with communities and contributing to society. 4. We will set up a review committee at the management level and implement internal environmental audits, and we will maintain a self-monitored environmental management system and strive for constant improvement. 5. We will make this environmental policy known to employees and all people who work within our organization and disclose content to all stakeholders, that is, any interested parties.

Basic Environmental Activity









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

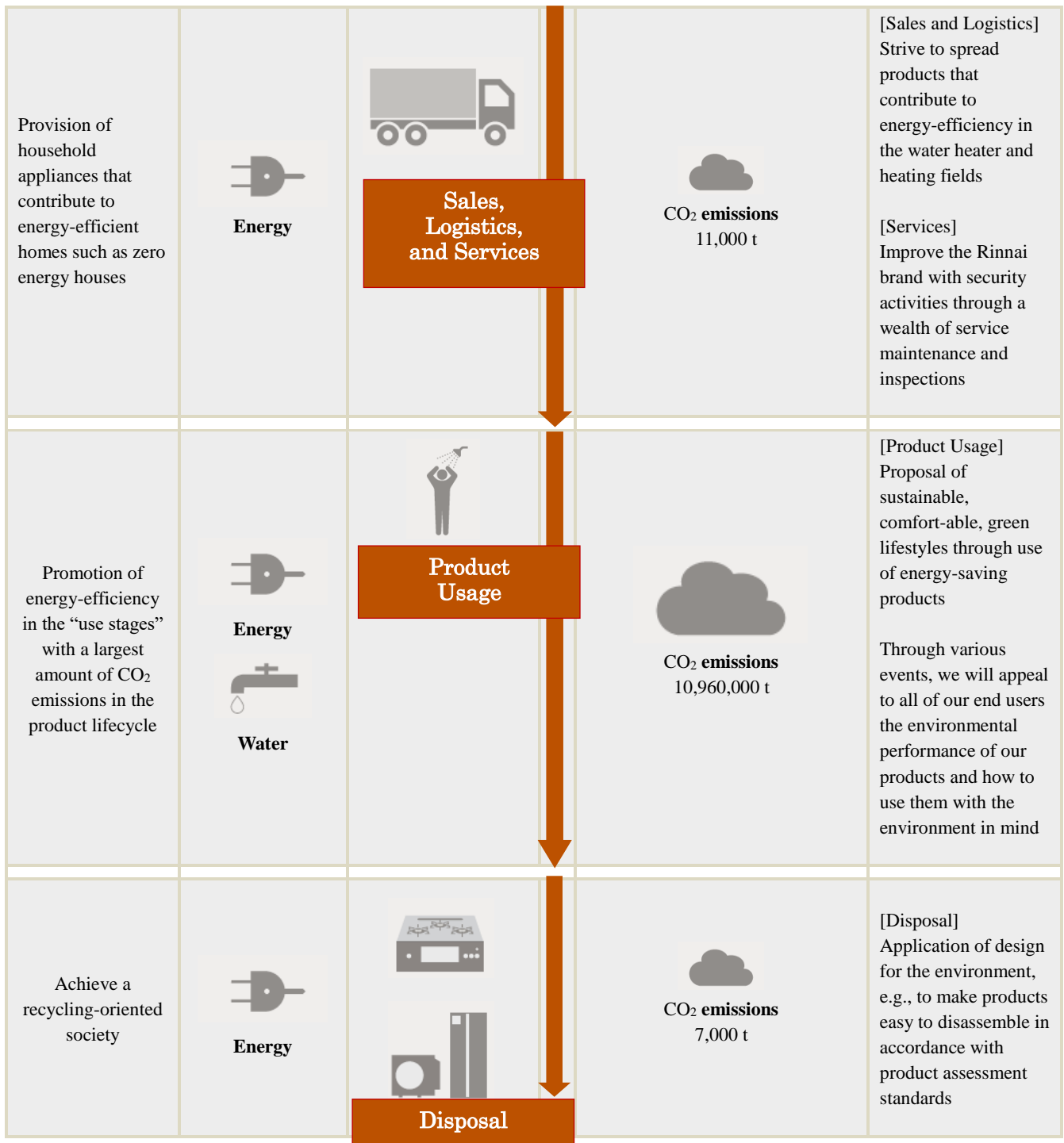


Our Value Chains and Their Impacts on Environment

The Impact of Rinnai's Value Chain on the Global Environment and Rinnai's Ideal Goal

Environmental issues such as global warming and the depletion of resources cannot be solved by the efforts of one company alone. We are striving to reduce our impact on the global environment throughout our entire value chain by sharing value with all of our stakeholders including customers and clients without limiting ourselves to activities within our company group and by promoting our activities. We acknowledge the demands from society and the impact of our business activities on society and that's why we conduct efforts with the environment in mind throughout all of our operations.

Demands and Expectations from Society (Globally / Japan)	Input Main resources inputted (raw materials and energy)	Rinnai's Value Chain		Output Main emissions	Rinnai's Ideal Goal
Handling procurement risk through the supply chain	 Raw materials Iron, copper, stainless steel, brass, aluminum, plastics, rubber, etc.	 Procurement		 CO₂ emissions 780,000t	[Procurement] To make the flow of products from parts procurement to commercialization better, share the value of initiatives together with clients and provide support to solve issues while thinking and growing together
- Increased demand for heat energy appliances mainly in the Asia region - Support for international frameworks such as the Paris Accord and other environmental regulations	 Energy · Electricity: 108,370,000 kWh · Gas: 10,950,000 m ³ · LP gas: 3,043 t · Other materials: 2,123 kl (Conversion to crude oil)  Water · Ground water: 320,000 m ³ · Public water: 650,000 m ³	 Development and Manufacturing		 Emissions 100,000t  Solid waste (Includes valuable substances) 28,000t 30,000t Wastewater 880,000 m ³	[Development] Develop products with superior environmental performance that meet the climate and needs of the region [Manufacturing] Pursue efficient processes, minimize invested resources and energy and promote activities that contribute to emission regulations for CO ₂ , waste products and chemical substances



Rinnai's estimates based on the “Basic Guidelines for Calculating Green House Emissions Through the Supply Chain”

[Target scope] Rinnai Corporation and consolidated subsidiaries (development / manufacturing), Rinnai Corporation (procurement / sales / logistics / services / product usage / disposal)

[Target period] Fiscal 2017 (April 2016 - End of March 2017)

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

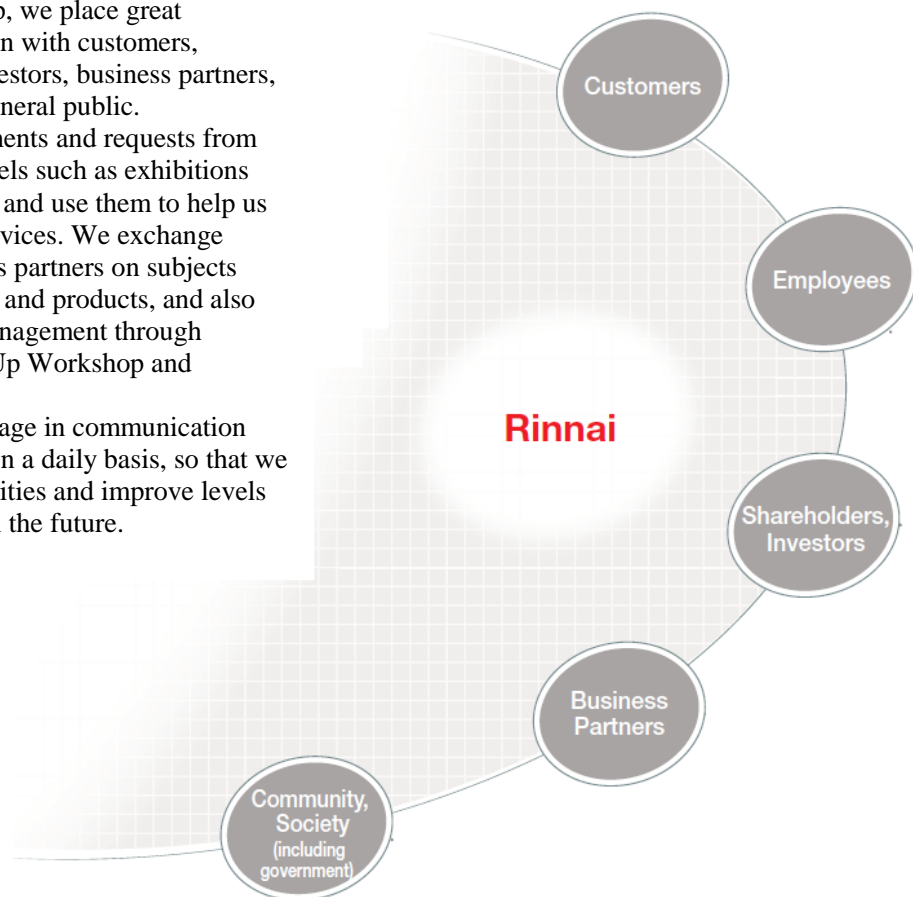
The Rinnai Group places great importance on communication with a variety of stakeholders and applies the valuable feedback and requests we receive in our business activities.

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.

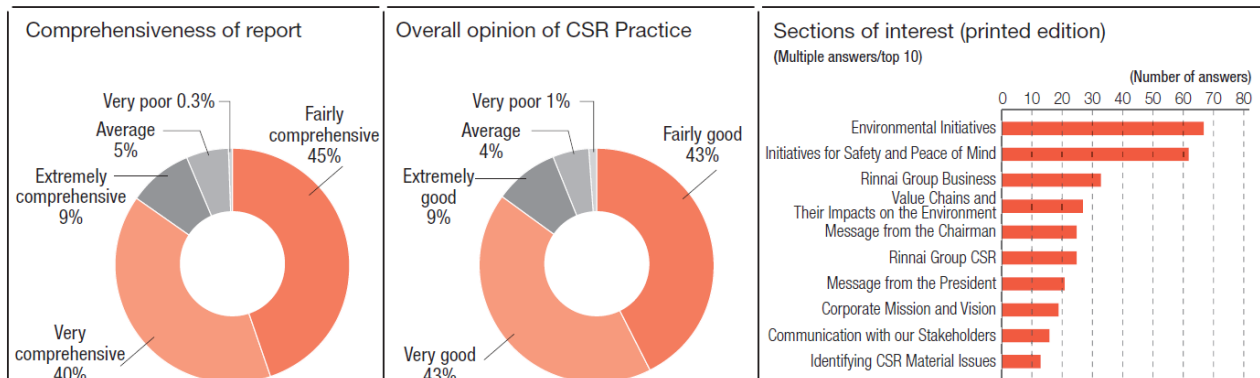


Main Stakeholders	Means of Communication	Opinions and Issues Raised and Our Responses
Customers	<ul style="list-style-type: none"> •Customer Center •Official online shopping site “R.STYLE” •Exhibitions •Other events •After-sales services (inspection and repairs) 	<ul style="list-style-type: none"> •We conscientiously answer a range of inquiries from customers concerning products and parts, and post frequently asked questions (FAQ) on our website. •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. •In October 2016, the Maintenance and Inspection Call Center opened as a contact for inquiries about inspection notices and inspection notification functions, and inspection appointments. We also explain the inspection system clearly to those customers who have not yet completed their owner registration, and encourage them to have a safety inspection.

		<ul style="list-style-type: none"> • From November 2017, we will start sending out legal inspection notifications for household products, in addition to legal inspection notifications for commercial products, which have already been implemented. We also send notifications for “safety inspections” in accordance with the “long-term use product safety inspection system” for products other than those subject to legal inspections, and strive to improve customers’ security.
Employees	<ul style="list-style-type: none"> • In-house intranet • In-house newsletter • Training • Events • Individual discussions • Corporate ethics advisory service • Workplace meetings 	<ul style="list-style-type: none"> • 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. • 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. • In order to adjust the “cost of living difference” in respective work locations, an urban allowance has been newly established. • In cooperation with employee unions, we will create and implement “interview guidelines for maternity/childcare leave.” • We are continuously committed to providing parental support and promoting women's employment, and are enhancing our programs beyond statutory requirements.
Shareholders, Investors	<ul style="list-style-type: none"> • General shareholders’ meetings • Results briefings • Investor relations meetings • Factory tours • Questionnaires 	<ul style="list-style-type: none"> • 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. • 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. • We hold results briefings and individual IR meetings to answer inquiries and explain our underlying thinking on dividend policy.
Business Partners	<ul style="list-style-type: none"> • New Year meetings / Policy presentations for suppliers • Supplier liaison group • Online communication tool, “R-LINE”* • Level-Up Workshop 	<ul style="list-style-type: none"> • 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. • Responding to requests from suppliers for advice on, e.g. improving quality and productivity, we organize level-up workshops and help suppliers to make improvements in the workplace.
Community, Society (including government)	<ul style="list-style-type: none"> • Participation in local/ community development activities • Support for cultural activities and the arts • Employee volunteer activities • Support for extracurricular school activities (factory tours, etc.) 	<ul style="list-style-type: none"> • 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. • 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. • 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.

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

CSR Report 2016 Questionnaire Results (n=424)



Selected Questionnaire Feedback

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

- I think it is essential to switch energy to a more eco-friendly energy source. I hope the Rinnai Group to introduce products that are simple, yet more generalized and reasonable for anyone.
- I don't think many people can actually take action even if they have an interest in environmental issues. Under such circumstances, if products such as the water heater that we use daily are environmentally friendly, many people can participate in contributing to an environmental activity through their products. I hope the Rinnai Group's further development of environmentally friendly products.
- Since I think renewable energy is unstable, it is important for companies that provide machines enabling us to use energy effectively to make efforts to save energy. I hope for your company's further development.

Q. General opinions and impressions

- I feel that there seems to be too much text for the number of pages. I thought it would be understood intuitively or be more explicit if you use graphics more, by replacing text with graphics.
- This report is easy to read and understand, even for non-experts. I felt that it does not have much data.
- I think it would be better to show KPI and its achievement status. I also feel that I want the Rinnai Group to have goals set for global development, diversity and female management.
- I want you to create something easy for everyone to use, being conscious of universal design.

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.

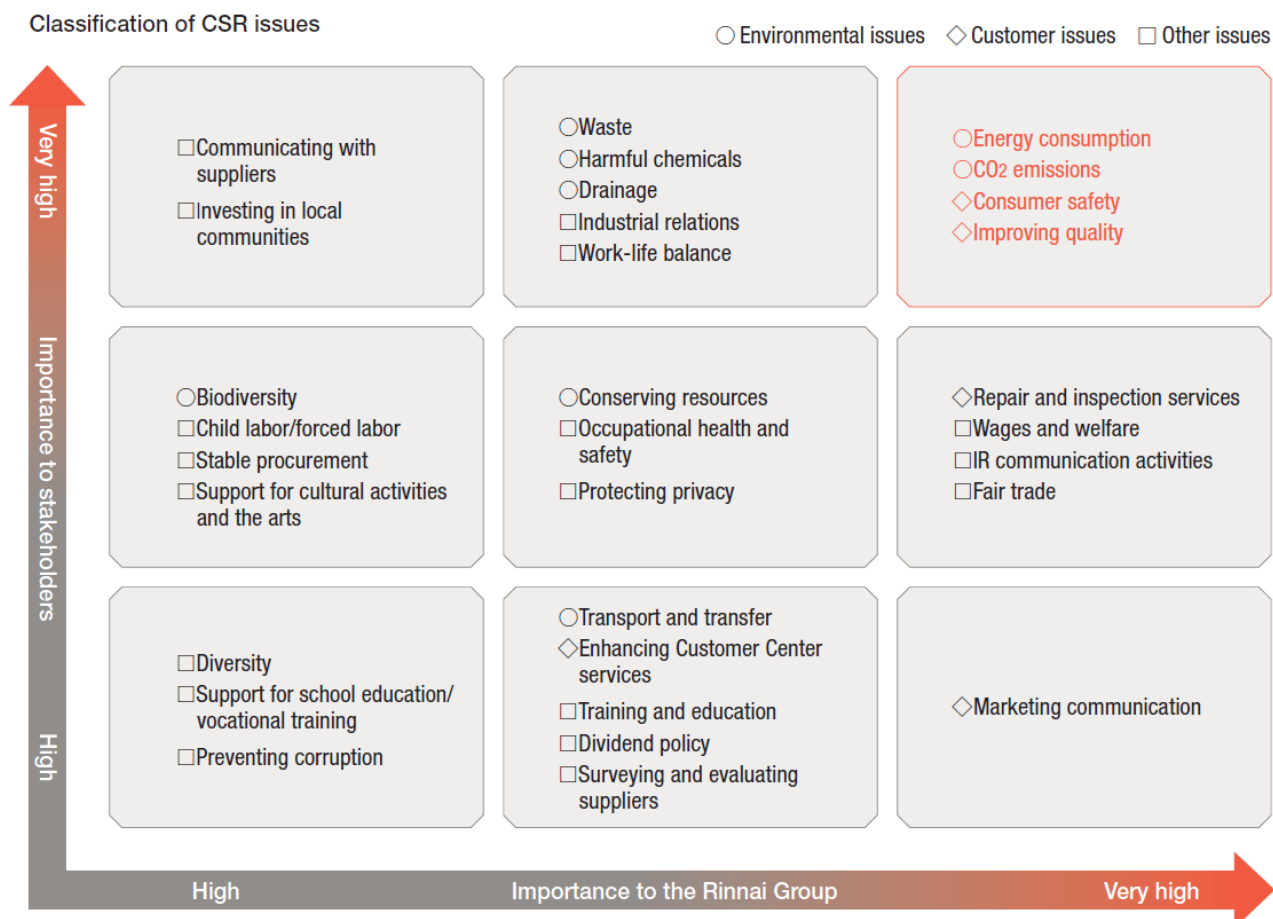
Identification Process



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.

These issues not only deeply affect and concern our stakeholders, but they are also identified as key priorities under the 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
- CO₂ emissions

Roughly half of all energy consumed by Japanese households is used for hot water and heating. Reducing energy consumption and CO₂ 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 CO₂ emissions.

Target Indicators

Amount it contributes to reducing CO₂ 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: Global

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.

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 seven 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 six 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 suspension or delays with raw material procurement activities
- Risk relating to social media
- Risks relating to the environment
- Risks of fire and explosion accidents, natural disaster
- Risk of bodily injury
- Risks relating to information leaks
- Risk of damage to mission-critical systems
- Risks relating to infection from new strains of influenza, norovirus, etc.
- Risks related to overseas subsidiaries, 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 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 97 “Measures for Risk Management and Stable Procurement”.

Information Securities Measures

See page 26 “Information Securities Measures”.

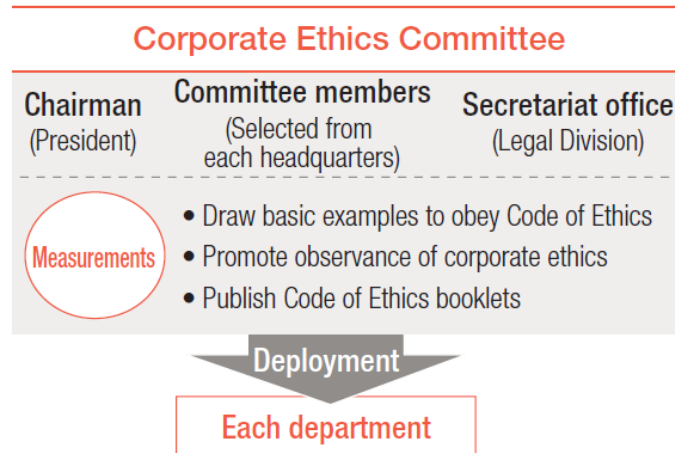
While society becomes more demanding toward company's security reinforcement issues, our Group as a whole promotes the adequate management of security systems by strengthening the awareness for proper information handling through the establishment of the rules for confidential information management 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

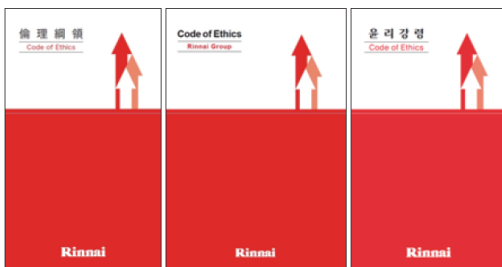
To remain a sound corporate group which wins the trust of society, the Corporate Ethics Committee was established in April 2004 headed by our President as its chairman. To promote compliance as part of our corporate culture, individual employees strive to live up to their social responsibilities and 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 countries which uses other official language than English. Each company member in charge of education provides employees training sessions.



“Code of Ethics” booklets (from the left: Japanese, English, Korean language versions)



“Code of Ethics” training sessions at Shanghai Rinnai Co., Ltd. (left), and Rinnai (Thailand) Co., Ltd. (right)

Compliance Promotion Activities

Compliance Education

In the Company, the Legal Division is in charge of law regarding the operation deeply related to business divisions, and conducts legal education every year. During fiscal 2017, a total of 501 people in the Company group took the course to deepen their knowledge of law.

Also, ethics education has been conducted every year during employee training for new recruits and by rank; 325 people attended in fiscal 2017.

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.

Number of compliance training participants in fiscal 2017

Course	Participants
Legal training	501
Ethical training	325



Legal education

Confirmation and Modification of Compliance Activities

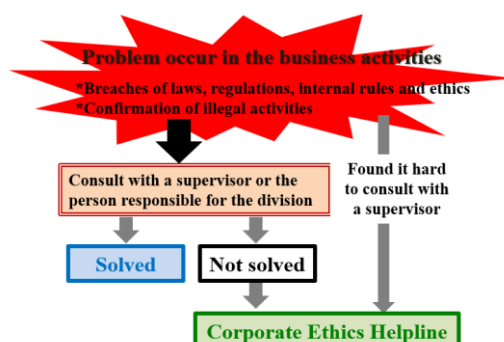
Every year, we conduct employee questionnaires to ascertain how deeply ingrained elements of our Corporate Philosophy have become. In fiscal 2017, these showed that 99.8% of respondents were familiar with the corporate motto and 99.7% understood our corporate mission. We will continue to actively promote 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. The helpline system is available through telephone, e-mail, and letter, from October 2015.

In July 2016, we established the additional helpline system at the outside lawyer office. 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 2017, the helpline received eight reports and requests for advice (five at inhouse helpline office and three at outside helpline office). Appropriate measures have been taken, including investigation and confirmation of the facts in these cases of alleged misconduct.



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 Disciplinary Committee.

Compliance Violations

There were no serious compliance violations in fiscal 2017.

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.

There were no leakage of personal information in fiscal 2017.

Information Security Policy

Of the many and varied risks faced in business, information risks have emerged as a serious and rapidly growing concern. Firms must now protect themselves against new risks, such as cyber-attacks, as well as traditional risks, making it essential that they continuously strengthen their information security.

We have therefore appointed a chief information security officer (CISO), who has overall responsibility for information security, and established an Information Security Office to promote action on information security. Together they are leading and coordinating action in the following areas.

Establishment of Internal Regulations

We have introduced various sets of regulations on information security to ensure that information assets are handled with strict care, including regulations on the management of trade secrets and regulations on the management of personal information. We have also established a separate privacy policy to ensure that personal information is handled securely.

Arrangements to Promote Information Security

Information management officers are appointed at each of our plants and offices to ensure that good information security practices are followed throughout the company. Arrangements are in place to enable these officers to work closely with the Information Security Office and facilitate action on information security.

An Information Security Committee consisting of the CISO and other employees involved in information security meets regularly to discuss and share information on information security matters and raise the standard of information security.

Implementation of Information Security Measures

A variety of measures are implemented to prevent information leaks. These include protection against hacking from outside sources, anti-virus measures, encryption of data before information assets are removed from company premises, control of devices such as USB memory sticks, and measures against spam. Access is rigorously controlled at all plants and offices, and entry and access to sensitive areas is also controlled.

Regulations lay down the information security requirements that must be met when new information systems are installed, and these requirements are revised whenever necessary to maintain and improve information security standards.

Awareness Raising and Training

Awareness raising and training activities are held on a continuing basis to ensure that all directors and employees are fully aware of the importance of information security and handle the information assets used in business activities in an appropriate manner. Regular training is also provided to ensure that information security issues are dealt with promptly when they occur.

Response to Incidents, Accidents, and Failures

Regulations have been established to ensure that appropriate action is swiftly taken in the event of an incident, accident, or failure affecting information security. If a problem occurs, we aim to respond swiftly to minimize the damage. We also strive to prevent recurrences and reinforce countermeasures by identifying the causes of problems.

Continuous Improvement

The countermeasures needed to ensure information security will change as the environment surrounding information security evolves. To keep pace with these changes, we regularly review our regulations, management systems, and other arrangements concerning information security to check for problems and make continuous improvements.

Major Award Winning History

Rinnai received following awards from April 2016 to March 2017.

Rinnai Corporation		
2016	August	Appropriate Packaging Award of Japan Packaging Contest 2016
	September	Good Design Award 2015
2017	January	<i>ECO ONE</i> received the ECCJ Chairman's Award in the Energy Conservation Awards hosted by the Energy Conservation Center, Japan (ECCJ).
	February	Selected as 2017 Health and Productivity Company by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange

Rinnai Korea Corporation		
2016	June	Korean Standard-service Quality Index (KS-SQI) by Korean Standards Association: No.1 at the service (Boiler) section
2017	February	Brand Survey by KMAC: Korea's Most Admired Companies No.1 at the residential boiler section

P.T. Rinnai Indonesia		
2016	September	Platinum Award in the gas tabletop cooker category of the 2016 Indonesia Best Brand Awards sponsored by SWA
	November	Indonesian Customer Satisfaction Award 2016 in the Gas Stove category

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

Rinnai New Zealand Ltd.		
2016	May	Rinnai Carton Submarine received Gold Winners in Pride in Print 2016

Rinnai Brazil Heating Technology Ltd.		
2016	December	Top of Mind Award by Casa & Mercado: No.1 at the gas water heater section

Environmental Initiatives

Evolution of *ECO ONE* hybrid water heater with heating systems

Targeting proliferation of energy-efficient water heater with heating systems that help prevent global warming

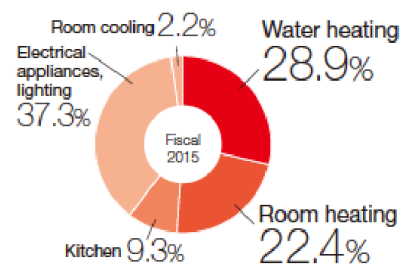


The Paris Accord^{*1}, a new set of regulations aimed at preventing global warming, came into effect in November 2016, and many countries around the world are taking action to counter warming, which is becoming a serious problem.

Construction of energy-efficient homes and buildings has become an inevitable trend in Japan, where the government has set an objective that calls for the majority of custom-built detached houses constructed by home builders and others to conform to net zero energy house (ZEH^{*2}) specifications by 2020.

Hot water supply and room heating together account for more than half of energy consumed by homes, and our *ECO ONE* hybrid water heater with heating systems is attracting attention because it contributes to a dramatic reduction of CO₂ emissions in both areas. In this section, we introduce the evolutionary process of *ECO ONE*, which has continued to undergo environmental performance improvements, as well as our efforts to popularize it.

Residential Energy Consumption by Usage Type^{*3}



^{*1} Paris Accord: Set of international rules to counter global warming. The Accord's target is to keep the increase in average global temperature to within 2°C higher than it was before the Industrial Revolution. Achieving this target will require a zero emission commitment to balancing emissions and absorption of greenhouse gases in the second half of the century.

^{*2} ZEH (net zero energy house): A house that ultimately emits zero net energy by eliminating waste of energy used and creating new energy through solar power generation and the like.

^{*3} Source: Energy White Paper 2017 (Agency for Natural Resources and Energy)

Targeting 1.6-million-ton reduction in CO₂ emissions by 2020

Heat-energy appliances, such as water heaters, emit the greatest volume of CO₂ during the actual consumer usage stage of their life cycles. 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.

Rinnai's medium-term environmental target for 2020 (fiscal 2021, ending March 31, 2021) is a 1.6-million-ton reduction in CO₂ emissions, using fiscal 2006 as the base year, and to this end we will pursue initiatives aimed at saving energy in homes and cutting CO₂ emissions. We have been making steady progress, with a 250,000-ton contribution in fiscal 2011 and a 980,000-ton contribution in fiscal 2017.

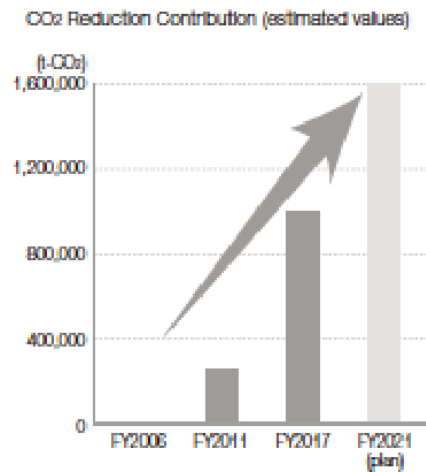
In all aspects of our core business—product development, manufacture, and sales—we will pursue efforts to prevent global warming.

*4 CO₂ reduction contribution: The amount of CO₂ emissions reduced thanks to improved performance of Rinnai-brand water heaters, compared with fiscal 2006.

[Calculation criteria] Target products: Water heaters sold by Rinnai Corporation in Japan

Usage period: 10 years

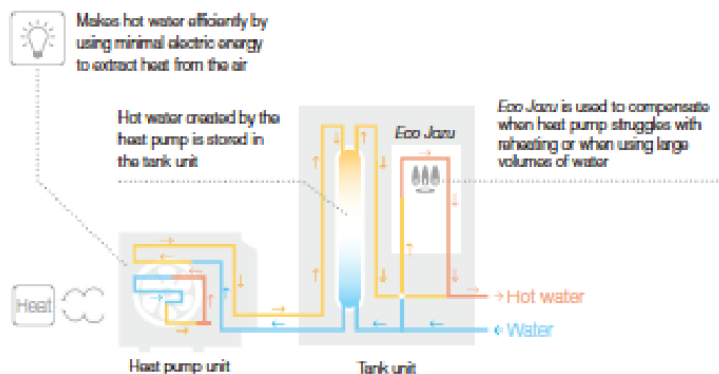
Based on Rinnai standard (service conditions, etc.)



ECO ONE: World's first system to combine a high-efficiency gas water heater with heating systems and a heat pump

ECO ONE, which supplies thermal energy for water and floor heating, is the world's first residential-use hybrid water heater with heating systems that uses gas and an electric heat pump. It consists of three main units: a heat pump, which uses electricity to boil water; a tank, which stores the hot water; and a high-efficiency *Eco Jozu* gas water heater that provides backup when reheating water and using large volumes of water.

Structure of ECO ONE



New! Convenient functions that reflect *ECO ONE* usage scenarios

Remote operation service to be launched (October 2017)

Using a dedicated smartphone application will enable users to perform operations and settings—such as filling the bathtub and switching on the floor heater—from outside the home.



Evolution of *ECO ONE* improving environmental performance and installation flexibility

Birth of world's first residential-use hybrid water heater with heating systems

Rinnai's *ECO ONE* hybrid water heater with heating systems, the world's first residential-use hybrid water heater with heating systems, was first launched in April 2010, based on a new concept of combining gas and a heat pump.

The first generation used R410 as its heat pump refrigerant. It efficiently captured atmospheric heat using minimal electricity to fill its 50-liter tank in around 45°C. When using large amounts of water, where heat pumps struggle, or when reheating bathwater, gas provides the required backup. By exploiting the strengths of electricity and gas in this way, we achieved a primary hot-water supply energy efficiency of 112%, well above the 100% figure that was considered the limit at that time.



First generation *ECO ONE*

Primary energy efficiency:

Refers to the amount of energy (hot water) received as a ratio of the amount of primary energy (such as coal, petroleum, and natural gas) consumed. Larger ratios mean greater energy efficiency of the appliance.

The second generation, launched in 2012, had a 100-liter tank added to the lineup and boasted a primary hot-water supply energy efficiency of 129%. It also marked the debut of the double hybrid system, which uses hot water made by the heat pump to handle both hot water supply and room heating. Its primary hot-water supply energy efficiency was highly evaluated, with *ECO ONE* receiving the top energy conservation prize, METI Award, at 2013 Energy Conservation Awards, hosted by the Energy Conservation Center, Japan (ECCJ).



Second generation *ECO ONE*

Improved installation flexibility and upgraded lineup for diverse housing environments

The third generation, unveiled in April 2015, used R32^{*1}, an alternative to CFCs, as the heat pump refrigerant, and delivered a primary hot-water supply energy efficiency of 138%. To encourage the proliferation of energy-efficient housing, we stepped up our emphasis on “ease of installation,” which we had tackled repeatedly since the second generation. To this end, we improved the installation method for the tank and gas heat source device as part of a rigorous design reassessment. We also upgraded our lineup, with one model having the tank and gas heat source separated from each other to permit installation in condominiums and other multiple-dwelling complexes, and another portable model especially for urban areas that can be installed in cramped spaces or under windows. We also enhanced convenience by developing a dedicated smartphone application enabling operation from anywhere in the home.

These improvements in environmental performance and installation flexibility made *ECO ONE* very popular, and the third generation received the Energy Conservation Center Chairman's Awards at 2016 Energy Conservation Awards.



Third generation *ECO ONE*



Split-system model for condominium installation



Portable model that can be installed under windows (50-liter type)

Achieved primary hot-water supply energy efficiency of 156%, the highest in the industry

Since the release of the first generation, we have sought to improve the energy-saving performance of *ECO ONE*, while working to enhance ease of installation to accommodate diverse housing environments and expand our lineup.

In August 2017, the eighth year since the birth of *ECO ONE*, we added a model with a tank capacity of 160 liters to the third-generation lineup. This 160-liter model has a primary hot-water supply energy efficiency of 156%^{*2}, the highest in the industry, and is strongly expected to contribute to the proliferation of ZEHs and other energy-efficient houses.

Reduction of CO₂ emissions in the residential sector will be crucial to achieving the targets of the Paris Accord for preventing global warming after 2020. We will continue enhancing *ECO ONE* in order to satisfy these social demands and expectations.

Third generation *ECO ONE*
(160-liter model)

*1 R32: Refrigerant with zero ozone depletion coefficient and extremely low global warming potential (GWP)

*2 Rinnai estimate (as of May 2017)

Environmental Special Feature: Special Discussion

Expectations of Rinnai with respect to making homes energy-efficient, key to preventing global warming, and realizing a sustainable society



For this environmental special feature, we had a conversation with Mr. Takao Sawachi, Director at the Building Research Institute, National Research and Development Agency, which has been involved in formulating energy efficiency standards for housing. We spoke about Rinnai's future environmental initiatives under theme of "making homes energy-efficient," which will be key to preventing global warming.

Proliferation of energy-efficient equipment is indispensable for achieving greenhouse gas reduction targets

Nakao: The Paris Accord came into effect at the 2015 United Nations Climate Change Conference (COP 21). Under the Accord, Japan promised to achieve a 26% reduction in its greenhouse gas emissions by 2030, compared with the 2013 level. In this regard, please tell us about the relationships with housing equipment manufacturers like Rinnai, as well as future trends.

Sawachi: Under the Paris Accord, Japan is targeting a 40% reduction in the business sector and a 39% reduction in the residential sector by 2030. Reducing CO₂ emissions in the residential sector is not difficult, as we can achieve energy savings in new houses, but the 39% target is a challenging goal because it also includes existing houses.

The key is to reduce primary energy consumption in homes, and hot water supply accounts for around one-third of such consumption. Here, I believe that high-energy-efficiency water heaters will deliver great benefits.

Nakao: One example of energy-efficient water heaters is *Eco Jozu*, a latent-heat-recovery type of gas water heater that recycles exhaust heat to achieve a water-heating efficiency of 95%. We are promoting the spread of *Eco Jozu* water heaters in existing houses, as well as new houses of course. Due to diversification of sales channels, including the Internet, there is a sense that the proliferation of *Eco Jozu* models, which are more expensive than others, is stalling a little.

Sawachi: Is that true? Looking at running costs, however, available figures show that users can recover the extra cost in around eight years, so there are considerable benefits. Conserving energy in existing houses is indispensable for achieving the 2030 target. For this reason, we need provide information to give customers an understanding about environmentally friendly products and their cost benefits. I would also like Rinnai will work on fostering the spread of energy-efficient appliances, notably *Eco Jozu*.



Takao Sawachi
Director,
Building Research Institute,
National Research and Development Agency

Nakao: I agree. Since global warming is a worldwide issue, we are striving to develop and popularize energy-saving water heaters, especially in high-CO₂-emitting nations, such as China and the United States, in addition to Japan.

In the United States, storage-type (tank-based) models account for a large share of the water heater market. If we can encourage customers to switch to instant-heating (tankless) models, we can help reduce CO₂ emissions.

Sawachi: How large is the U.S. market?

Nakao: The water heater market is around 9 million units per year, of which storage-type models account for 95%.

Sawachi: While latent-heat-recovery water heaters are good, even the use of regular instant-heating models will lead to considerable energy savings. Storage-type models require space for the tank, so instant-heating models are beneficial with respect to compactness. You have many challenges ahead, including establishment of maintenance systems, but I have high expectations that Rinnai will contribute to the popularization of energy-efficiency appliances.

Gas water heater: UEF* energy efficiency comparison



Storage-type gas water heater
(50-gallon)

UEF 0.60

* Image photo



Instant-heating gas water heater
(latent-heat-recovery type)

UEF 0.92

* UEF (Uniform Energy Factor): Water heater energy efficiency evaluation standard adopted by the U.S. Department of Energy (DOE) in June 2017. Higher UEF figures mean higher efficiency.

“Reliable energy-saving performance evaluation” is important for the proliferation of energy-efficient housing

Nakao: Right now, we are witnessing the spread of net zero energy houses (ZEHs), primarily new homes. Please tell us about the issues and initiatives for future energy-efficient housing, including ZEHs.

Sawachi: Energy-saving renovations of existing houses are not making much progress, and for this reason we need to enhance the energy-efficiency performance of new houses. Proliferation of solar power is also necessary to achieve

a low-carbon electricity supply, so we need to apply higher ZEH standards than those currently adopted for existing houses. I think the benefits of high-efficiency water heaters will play a part in the spread of ZEHs in Japan, which consumes large amounts of energy for water heating.

Nakao: We began selling our *ECO ONE* hybrid water heater with heating systems, which combines a heat pump and *Eco Jozu*, in 2010. Thanks to its top-class energy-saving performance, *ECO ONE* is attracting attention in the campaign to promote ZEHs and other energy-efficient houses in the nation. I am keen to foster the spread of ZEHs by providing products that deliver high energy-saving performance and comfortable hot-water-based heating. However, the energy-saving performance of hybrid-based room heating is impacted by the housing environment in which the system is installed. Accordingly, there are issues with evaluation methods, so we are working with knowledgeable people to establish such methods.



Kimiatsu Nakao

General Manager, Sales Planning Division,

Marketing & Sales Headquarters

Rinnai Corporation

Sawachi: The establishment of appropriate energy performance evaluation criteria is important to the spread of energy-efficient homes in the future. The most important aspect in evaluating primary energy consumption is the operating efficiency of the equipment, so it is important to establish reliable energy-saving performance evaluation criteria. This includes using actual operating efficiency as an evaluation benchmark, as well as conducting evaluation tests by third-party entities as required.

In addition to equipment development, we must consider design factors that encourage users to select and install our products. In the case of hot-water-based floor heating, factors other than heat source are very important, notably hot water panel specifications, installation area, heat insulation of piping, and other aspects related to installation and setup. Even if the rated efficiency is high (thanks to a heat source with large capacity, for example), the actual efficiency can decline depending on the installation environment. In order to save energy in homes, it is very important to take into consideration the environment and other conditions affecting the equipment to be installed.

Nakao: It is important to have evaluation criteria based on actual efficiency, including installation environment and reliable evaluation by third-party entities, it seems.

Sawachi: Knowledge obtained through development of new evaluation methods can be reflected in the development of products with high energy-saving performance. It will be challenging, but I really want Rinnai to do its best to establish methods for evaluating the performance of hybrid-based heating, and I look forward to your ongoing development of products with high energy-saving performance.

Efforts to Make Products Better

With awareness of global warming and other social challenges spreading, consumer demands are moving beyond simply physical affluence in search of value that contributes to the quality of life. In recognition of these evolving demands, we are working to develop and popularize products tailored to local climates and needs that make life much more environmentally friendly.

Strong Start to Achieving Our Mid-term 2020 Environmental Targets

We are working to raise energy efficiency and popularize the use of environmentally friendlier products to achieve our medium-term environmental target of making a 1.6 million ton contribution to reducing CO₂ emissions produced during use of products by 2020. This “CO₂ reduction contribution” we define as the reduction in CO₂ emissions resulting from the improved performance of our water heaters compared with the emissions that would have been produced by products offering a 2005 level of performance. The CO₂ reduction contribution in fiscal 2017 was 980,000 tons.

Environmentally Friendly Products for the Bathroom, Living Room, and Kitchen

ECO ONE Hybrid Water Heater with Heating System

ECO ONE supplies hot water (thermal energy) for the bathroom and living room floor heating. It is the world’s first hybrid water heater and heating system for the home that makes combined use of gas and an electric heat pump, and the latest model’s primary energy efficiency is a world-beating 156%.

The second-generation *ECO ONE* won the METI Award in the Product and Business Model category of the 2013 Energy Conservation Awards, while the third-generation model won the Energy Conservation Center Chairman’s Award in the same category. The *ECO ONE* remains the industry leader for environmental performance and good design.



Eco Jozu High-Efficiency Gas Water Heater

Eco Jozu is a high-efficiency gas water heater that works by condensing the water vapor in exhaust gas to capture its latent heat. This raises water heating efficiency from the 80% achieved by conventional models to almost 95%. It can heat copious amounts of water without using much gas. Like the *ECO ONE*, a single *Eco Jozu* can supply all the hot water needed for kitchen, bathroom, and floor heating use.



Yuka Hotto E Hot Water Floor Heating System

Hot water floor heating systems heat entire rooms from the feet up by circulating hot water produced by a heat source (such as an *ECO ONE* or *Eco Jozu*) through underfloor pipes. Conventional systems need water that has been heated to 60°C to heat a room. Thanks to its use of insulated piping to minimize heat loss, however, the *Yuka Hotto E* can warm a room using water that is only 40°C. Used in tandem with an *ECO ONE*, the *Yuka Hotto E* produces approximately 30% lower CO₂ emissions than conventional products.

Bath Hotto Bathroom Heater/Dryer

Depending on the region and the season, Japanese bathrooms can be much warmer or colder than other rooms in the home, and this can be both unpleasant and potentially harmful to health. The warm air from a bathroom heater/dryer eases the physical discomfort by eliminating the difference in temperature between the bathroom and other rooms, which can be especially marked in winter.

After bathing, *Bath Hotto* can also be used as a clothes dryer to reduce the



formation of mold and condensation in the bathroom. It features an eco-drying mode, which slowly dries clothes with cool air before running a drying cycle, as well as an energy-efficient heat-saving function to keep the bathroom warm. These features reduce running costs by about 32% compared with our previous model.

Kanta-kun Gas Clothes Dryer

Both in Japan and other countries, more and more households are becoming reluctant to dry washing outside due to the risk of it becoming covered in dust and particulate matter from the atmosphere. Our gas clothes dryers contain a large-capacity drum that can dry up to 5 kg of laundry per load. The powerful current of warm air generated by gas combustion dries loads in an instant, leaving fibers soft and fluffy through and through.



Fan Heaters

Our fan heaters ensure that greener lifestyles are also comfortable lifestyles. They feature a “green comfort mode” that controls combustion for a certain period once a preset temperature has been reached to prevent rooms from becoming overheated, thus reducing gas consumption by up to 16%, and the latest model has a revamped, resource-saving design that makes it 1-1.5 kg lighter than previous models.



Growing Popularity of Rinnai's Environmentally Friendly Products Around the World

Rinnai does business in 80 countries and underpins lives all over the world. Having become an integral part of so many people's homes and diets, we are committed to continuing to develop our presence in order to improve people's lives and help tackle environmental issues in a manner suited to local environmental conditions.

United States

Most households in the U.S. use storage water heaters,¹ which can potentially run out of water in the middle of a shower. Our water heaters allow the water temperature to be controlled in 1°C increments, which means you instantly get as much hot water as you need, when you need it.

Their water heating efficiency can reach almost 96%, and Rinnai America is working hard to raise awareness of their energy-saving credentials, both by generating publicity through the media and by providing training throughout the U.S. for some 200,000 installation engineers. Launched in 2000, cumulative unit sales as a result passed the 2 million mark in 2016.



^{*1}Storage water heaters achieve poor thermal efficiency of 59%-62%. They store water in a tank and supply hot water that has been heated by a heating element or similar means. Heat radiation loss occurs constantly. The U.S. water heater market comprises approximately 9 million units, 95% of which are storage water heaters.

China

In northern China where the winters are harsh, most heating appliances burn coal. Driven by concerns about worsening air pollution caused by emissions of PM2.5 and other pollutants, a major government-led project² is now underway in some parts of the country to encourage people to switch to using natural gas as a fuel for home heaters.

Natural gas emits no sulfur oxides (SOx) and less carbon dioxide (CO₂) and nitrogen oxides (NOx) when combusted than other fossil fuels, making it an extremely environmentally friendly energy source.

Shanghai Rinnai is promoting the replacement of old boilers with new ones that use natural gas as an energy source as part of its efforts to protect the global environment.



*2This national project to promote use of natural gas currently covers the cold region of Beijing and its surrounding cities and provinces, including the city of Tianjin and provinces of Hebei, Henan, Shanxi, and Shandong. It is being promoted particularly strongly in Beijing and Hebei.

Australia

The southern hemispheric landmass of Australia covers a vast 7.7 million square kilometers and receives a high volume of solar radiation. To take advantage of all this sunlight, Rinnai Australia sells solar water heating systems that are manufactured in Australia. Solar water heating systems capture solar heat by means of heat collection panels to produce warm water. Used in conjunction with electric water heaters and tankless gas water heaters, they can supply water at a constant, moderately warm temperature.



Brazil

Electric showers that consist of an electrically heated wire in a shower head are widely used in Brazil. Showers of this kind consume a great deal of electricity during use and are also vulnerable to short circuiting.

The precarious balance of supply and demand for electricity in the country is also a serious social problem, and Rinnai Brazil is working to develop and popularize safer, more environmentally friendly gas water heaters to make Brazilians' lives more comfortable.



South Korea

As Korean winters are extremely cold, use of boilers (similar to the combined room and water heaters sometimes used in Japan) predominates, rather than the tankless water heaters typically found in Japanese homes. In Korea, as in Japan and the U.S., condensing boilers are growing in popularity and we are continuing to pursue improvements to make water heaters more energy efficient.



Example: Development of products tailored to environments in Southeast Asia

As part of our strategy of developing environmentally friendly products for the rapidly growing Southeast Asian market, Rinnai Vietnam has reduced the weight of the cooking stoves that it manufactures by cutting the amount of plating and other materials used to make them. The number of screws used, for example, has been reduced from 20 to eight. Although just as strong as the old models, the new stoves are approximately 0.3 kg lighter and also cost less to manufacture (a cost reduction of 8% compared with the previous model).



Compliance with Design for the Environment Principles

We follow Design for the Environment (DfE) principles in accordance with our own rules on product evaluation in order to make appliances more recyclable and energy and resource efficient. Environmental assessments are made at every stage of the product lifecycle from planning and design onward to ensure that every model is more environmentally friendly than its predecessor.

Our Key DfE Principles

- Save resources.
- Reduce the impact on the environment at the production stage.
- Reduce the impact on the environment at the use stage.
- Increase the potential for recycling.
- Ensure safety.
- Streamline collection and transportation.

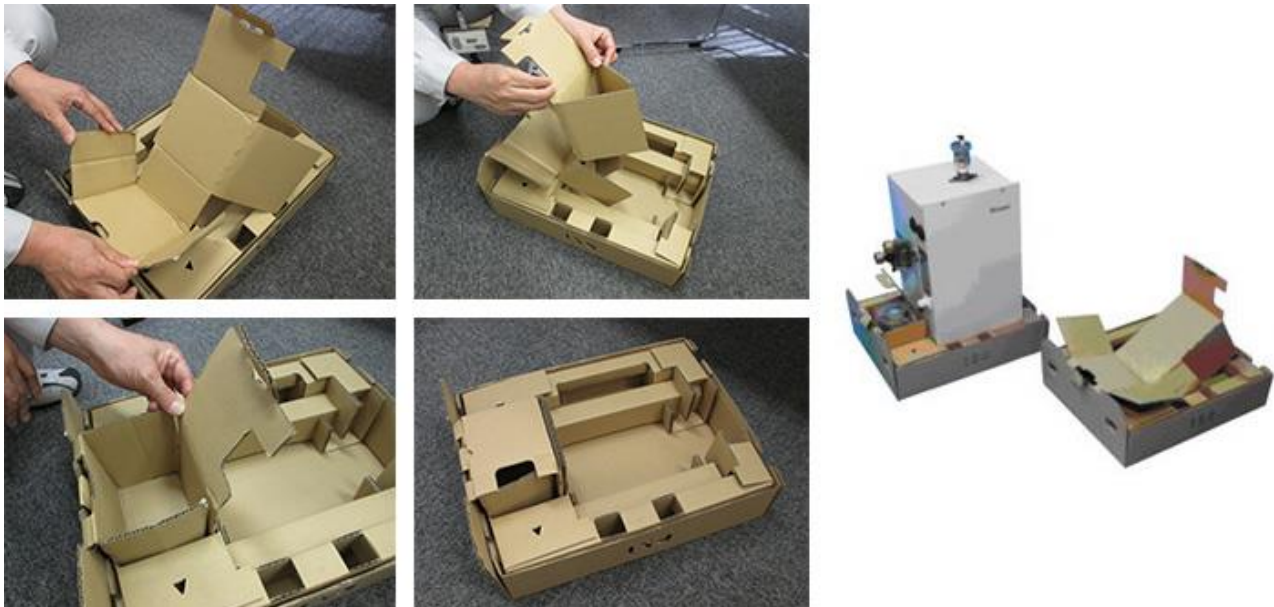
Efforts to Improve Packaging

We use packaging made from easy-to-recycle cardboard, and we are also expanding our use of returnable packaging to promote reuse of packaging materials and reducing the weight and volume of packing by making more effective use of packaging components.

All-in-One Product and Accessories Packaging Tray Wins Appropriate Packaging Award

Made solely from cardboard, this tray is capable of holding a product (an instant hot water pump unit) and 3 kg of accessory parts. Judges at the 2016 Japan Packaging Contest were impressed by its excellent functionality and economic use of packaging materials, and awarded it the Appropriate Packaging Award.

How our all-in-one packaging tray fits together



Recycling Initiatives

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 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 Suppliers

CO₂ emissions, threats to water systems, chemicals, and all kinds of other risks along supply chains necessitate mitigative action by companies. We continuously practice green procurement management in accordance with national regulations wherever we do business and work with our suppliers to protect the environment.

Promoting Management of Chemical Substances Present in Products

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 monitoring regulatory developments around the world, 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.

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 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]



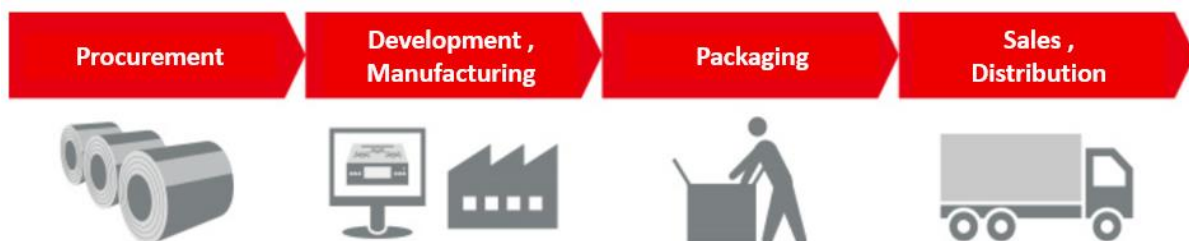
Practical training for our suppliers

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

Making Our Supply Chains More Environmentally Friendly

We share information on the value of initiatives to protect the environment, improve quality, and so on with our suppliers to facilitate action to solve the challenges faced. These initiatives also help reduce energy costs, shorten lead times, and improve 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 reduced CO₂ emissions by approximately 42 tCO₂/year, and waste (paper) emissions by approximately 22t/year.

These improvements were awarded the Nagoya Municipal Industrial Research Institute Director's Award at the 21st Resource Recycling Monozukuri Symposium IMS.



Adoption of simpler packaging

Example 2: Development of next-generation connectors

Connectors are the parts needed to electrically connect one function to another. Large numbers are used in products such as water heaters and gas cooking stoves, and they come in a variety of sizes depending on how and where they are used.

We worked with connector, harness, and wire manufacturers to brainstorm possible solutions to the problems faced, resulting in the development of a connector that reduces the impact on the environment throughout supply chains. Thanks especially to the improved coating method and simpler packaging used for the new connector, we reduced waste emissions by approximately 21 tons and water use by approximately 19,000 liters per year.



Increased range of connector colors to prevent mis-connections during assembly work

Example 3: Design of environmentally friendly screws

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.

We have managed to improve thread fastening performance while saving energy (by speeding up the fastening process) and resources (by using fewer materials). We reduced CO₂ emissions by approximately 2 tons per year and material use by approximately 2 tons per year.



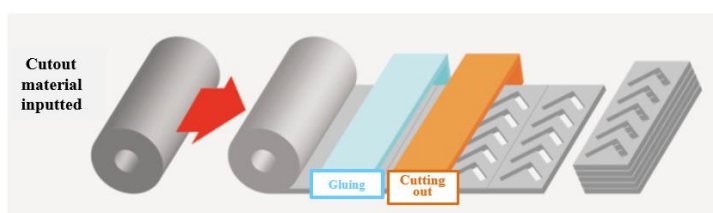
Screw design change and returnable packaging

Example 4: Packing production method revised

We have rethought how we make and distribute the packing used in water heaters, resulting in improved workability and reductions of around 2 tons per year in CO₂ emissions and 7 tons per year in waste emissions.

Main changes

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



Steps in packing production process

Environmentally Conscious *Monozukuri*

Global environment is affected by the worldwide population growth and consumer spending than ever before. Rinnai is committed to emissions regulations of CO₂, solid waste and chemicals by controlling input resources and energy, and pursuing all kinds of technological innovations and exercising all the manufacturing expertise that it has accumulated since its inception.



Production and Technology Development Center

Impact on the Environment of the Rinnai Group

Quantitatively monitoring environmental impacts is crucial to environmental protection work.

The Rinnai Group monitors energy consumption and CO₂ emissions (scopes 1 and 2) associated with business activities throughout its supply chains, and places a particular focus on reducing impacts arising from “use of sold products” (category 11 of scope 3), which generates significant emissions.

The Group also has its performance independently verified to ensure the accuracy and reliability of information that it publishes.

*Scope 1: All direct emissions into the atmosphere from sources of greenhouse gas by business activities of the reporting company.

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

*Scope 3: All indirect emissions (not included in scope 2) that occur in the business activities through value chain of the reporting company.

Scope of Accounting

Rinnai Corporation and consolidated subsidiaries

Company name

Rinnai Corporation

Yanagisawa Manufacturing Co., Ltd.

Rinnai Technica Co., Ltd.

Gastar 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

Rinnai Australia Pty., Ltd.

Rinnai America Corporation

Rinnai Holdings (Pacific) Pte Ltd.

Rinnai New Zealand Ltd.

Rinnai Hong Kong Ltd.

Rinnai Taiwan Corporation

Rinnai Korea Corporation

Rinnai (Thailand) Co., Ltd.

Shanghai Rinnai Co., Ltd.

Rinnai Viet Nam Co., Ltd.

RB Korea Ltd.

Rinnai Canada Holdings Ltd.

Rinnai Brasil Heating Technology Ltd.

Shanghai Rinnai Thermo Energy Engineering Co., Ltd.

P.T. Rinnai Indonesia

Brivis Climate Systems

Gas Appliance Services Corporation

Reporting Period

Domestic: From April 1, 2016, to March 31, 2017

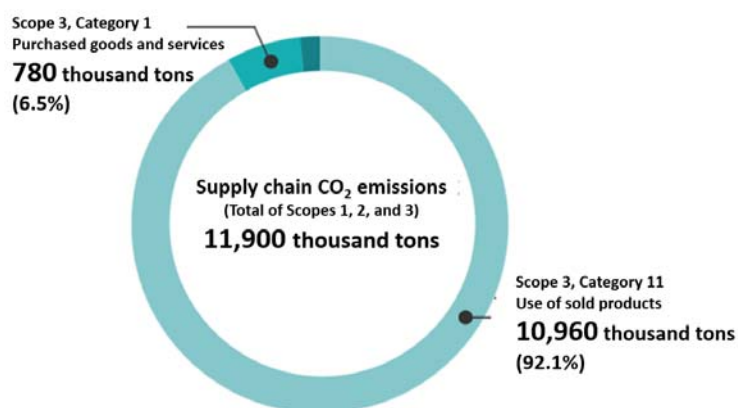
Overseas: From January 1, 2016, to December 31, 2016

Third-Party Assurance

✓ This icon indicates that a measure has been third-party assured by Lloyd's Register Quality Assurance (LRQA).

CO₂ Emissions

Scope			Unit	Fiscal 2017	Percentage	Assurance
Scope 1			tCO ₂ e	38,663	0.3	✓
Scope 2				61,843	0.5	
Scope 3	1	Purchased goods and services		778,284	6.5	—
	2	Capital goods		41,246	0.3	—
	3	Fuel- and energy-related activities		2,937	0.0	—
	4	Upstream transportation and distribution		10,953	0.1	—
	5	Waste generated in operations		630	0.0	—
	6	Business travel		597	0.0	—
	7	Employee commuting		1,783	0.0	—
	8	Upstream leased assets		Included in scope 1	—	—
	9	Downstream transportation and distribution		—	—	—
	10	Processing of sold products		Not applicable	—	—
	11	Use of sold products		10,964,072	92.1	✓
	12	End-of-life treatment of sold products		6,891	0.1	—
	13	Downstream leased assets		Not applicable	—	—
	14	Franchises		Not applicable	—	—
	15	Investments		Not applicable	—	—
Total of Scopes 1, 2, and 3			11,907,900	100		



Energy Consumption

Scope		Unit	Fiscal 2016	Assured
Electricity		MWh	108,748	✓
City gas	Use of equipment on premises	1,000 Nm ³	10,735	✓
	Use of vehicles	1,000 Nm ³	3.1	✓
Methane gas		1,000 m ³	24.3	✓
LPG	Use of equipment on premise	t	3,043	✓
	Use of vehicles	t	3.6	✓
Butane gas		t	68.8	✓
A-type heavy oil		kl	0.2	✓
Kerosene		kl	25.6	✓
Light oil	Use of equipment on premise	kl	26.2	✓
	Use of vehicles	kl	315.7	✓
Gasoline	Use of equipment on premise	kl	10.6	✓
	Use of vehicles	kl	1,810	✓

Conditions for Calculations

Scope 1

CO₂ conversion factors

Emission factor:	MOE/METI, <i>GHG Emission Calculation and Reporting Manual (Ver. 4.3.1)</i>
Heating value:	<ul style="list-style-type: none"> • City gas: 45 MJ/Nm³ • Methane gas: 39.7 MJ/m³

Gas	Town gas	2.24	tCO ₂ e/1,000 Nm ³
	Methane	2.02	tCO ₂ e/1,000 Nm ³
	LPG	3.00	tCO ₂ e/t
	Butane	3.00	tCO ₂ e/t
Oil	Heavy oil	2.71	tCO ₂ e/kl
	Kerosene	2.49	tCO ₂ e/kl
	Light oil	2.58	tCO ₂ e/kl
	Gasoline	2.32	tCO ₂ e/kl

Scope 2

CO₂ conversion factors

Domestic emission factors	"Emission Factors by Electricity Utility (for FY2017 Reporting)" in MOE/METI, <i>GHG Emission Calculation and Reporting Manual (Ver. 4.3.1)</i>
Overseas emission factors	Latest figures published for electricity utilities, etc. in the countries concerned

Electricity	Australia (Adelaide)	0.670	tCO ₂ e/MWh
	Australia (Melbourne)	0.960	tCO ₂ e/MWh
	United States	0.490	tCO ₂ e/MWh
	Singapore	0.431	tCO ₂ e/MWh
	Hong Kong	0.790	tCO ₂ e/MWh
	Taiwan	0.525	tCO ₂ e/MWh
	South Korea	0.459	tCO ₂ e/MWh
	Thailand	0.544	tCO ₂ e/MWh
	China (Shanghai)	0.704	tCO ₂ e/MWh
	Vietnam	0.815	tCO ₂ e/MWh
	New Zealand	0.120	tCO ₂ e/MWh
	Brazil	0.082	tCO ₂ e/MWh
	Indonesia	0.840	tCO ₂ e/MWh

Scope 3

- Calculated in accordance with MOE/METI, *Basic Guidelines on Calculation of Greenhouse Gas Emissions Throughout the Supply Chain (Ver. 2.3)*.

- Conditions for all categories

Scope of calculation:

Rinnai Corp.

- MOE, *Emission Factor Database (Ver. 2.3)*

Emission factors:

- CFP Communication Program Secretariat, *Carbon Footprint Communication Program: Basic Database (Ver. 1.01) (Domestic Data)*

- Conditions for category 11 (use of sold products)

Products covered:

Water heaters sold by Rinnai

- Electricity: 0.570 kgCO₂e/kWh

Federation of Electric Power Companies of Japan, *Environmental Action Plans in the Electricity Industry, September 2015* (reference materials: collected data on performance in FY2013)

Emission factors:

- City gas: 2.21 kgCO₂e/m³

Tokyo Gas Co., Ltd., *City Gas CO₂ Emission Factors* (13 A, 45 MJ/m³, ordinary households and other customers receiving low-pressure supply)

Third-Party Assurance Statement

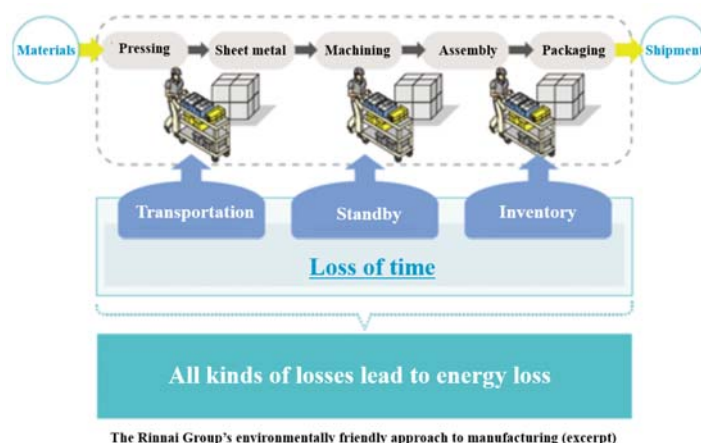


Efforts to Prevent Global Warming

Action to Conserve Energy

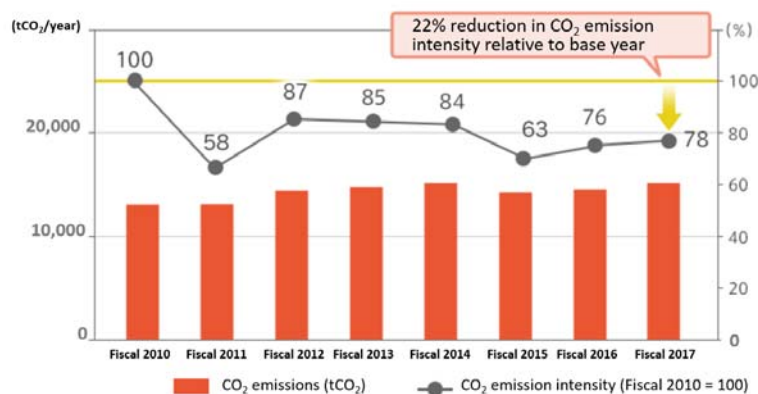
As a “specified business operator” under the revised Act Concerning the Rational Use of Energy, we are pursuing energy efficiency improvements in line with an established energy management policy and targets.

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.



CO₂ Emission Intensity ^{*1} Reduced by 22% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing CO₂ emission intensity by at least 7% relative to fiscal 2010, ending March 31, 2010, by fiscal 2017, ended March 31, 2017, and in fiscal 2017 we achieved a 22% reduction.



(*1) CO₂ emission intensity: CO₂ 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)	Consolidation of production facilities, 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.



Replacement of conventional lights with LED ones at warehouse (Rinnai Parts Center)



Improving furnace efficiency (Noto Tech Co., Ltd.)



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 2017, we generated 50,000 kWh from renewable sources.



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.

Action to Promote Eco-Driving

Please see page 57 “Safe and Eco-Friendly Driving Initiatives”

Action on Waste and Water Resources

Reduced Waste Output and Zero Emissions

We strive to maintain zero emissions*¹ and reduce waste output.

*¹ Definition of zero emissions: More than 99.5% of waste is recycled (including heat recovery)

Efforts to Curb Generation of Waste [waste reduction activities]

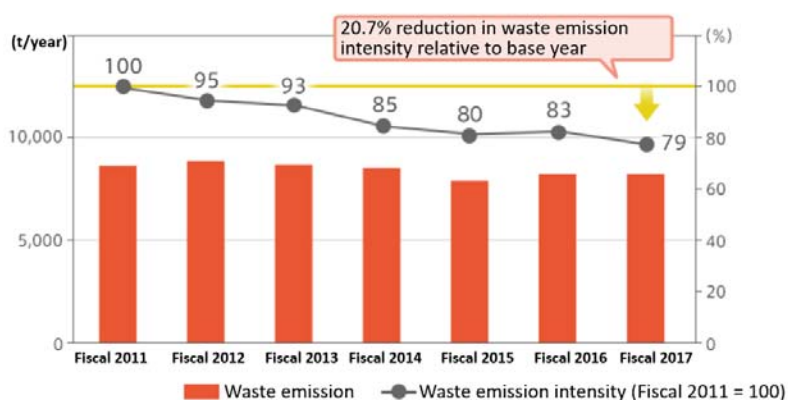
- Don't buy something that will end up as garbage: abolition of the excessive packing in cooperation with clients
- Return reusable items to respective point of purchase: usage of returnable materials for transportation in cooperation with clients
- Reuse: improvement of reuse ratio of residual chemicals
- 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^{(*)2} Reduced by 20.7% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing waste emission intensity by 6% relative to fiscal 2011, ending March 31, 2011, by fiscal 2017, ended March 31, 2017, and we achieved a reduction of 20.7% in fiscal 2017. Total waste emissions are down 5.3% 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) as a measure for waste sources. 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 2017, we confirmed that 30 contractors were conducting waste management in an appropriate manner.



Visiting disposal sites

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 PCB 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.

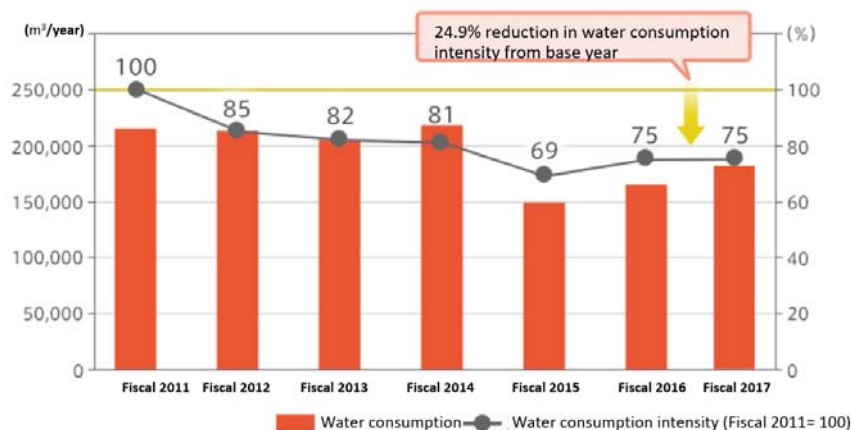
We are also taking measures to ensure that scrap appliances found to contain trace elements of PCB are adequately stored and appropriately disposed of at facilities certified by the Minister for the Environment from fiscal 2011 onwards.

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 24.9% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing water consumption intensity by at least 6% relative to fiscal 2011, ending March 31, 2011, by fiscal 2017, ended March 31, 2017, and we achieved a 24.9% reduction in fiscal 2017. Total water consumption is down 13.5% 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

Reducing Environmental Impact by Improving Pretreatment Systems

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. Treated wastewater is also recycled as water for flushing toilets.

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 m³/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

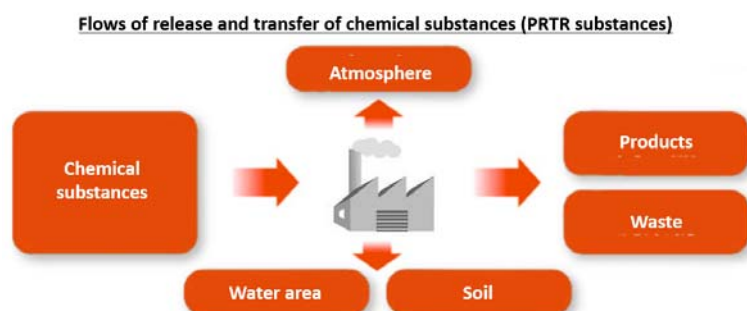
Efforts to Prevent Pollution

Reducing or Eliminating Use of Harmful Chemical Substances

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.

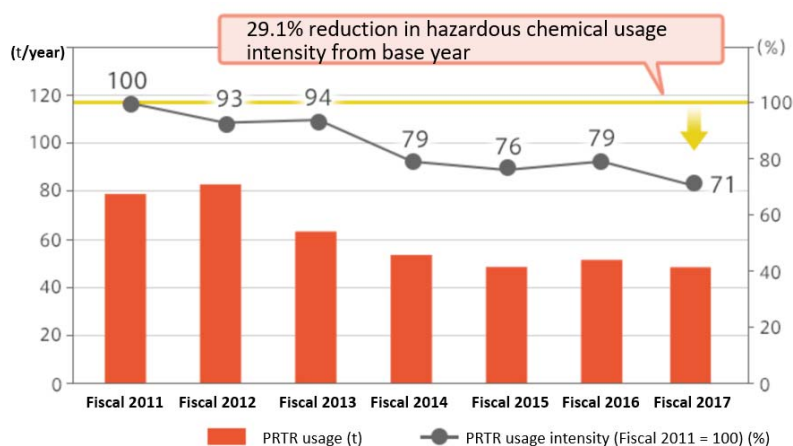
Management of Usage Amount of Chemical Substances

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.



Hazardous Chemical Usage Intensity ^(*) Reduced by 29.1% (Scope: Rinnai)

Our “7E Strategic Initiatives” environmental action plan set a target of reducing hazardous chemical usage intensity by at least 6% from fiscal 2011, ending March 31, 2011, by fiscal 2017, ended March 31, 2017, and we achieved a 29.1% reduction in fiscal 2016.



(*) 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 paint use and improvement of production efficiency

Improvements made to the paint process for clothes dryers made at our Asahi Factory have reduced the environmental impact by improving painting efficiency.

A study was first conducted to determine the optimum processing conditions (such as the best distance, angle, and speed of movement relative to the painting area) given production capacity and the shape of the part being processed. Based on the findings, the paint process was then modified so as to paint two panels suspended from a single hanger.

This has minimized paint loss and reduced the amount of paint used.

Effects (approximate):

- Reduction in use of hazardous chemicals: 630 kg/year
- Reduction in quantity of paint used: 15%
- Reduction in CO₂ emissions: 13t/year
- Reduction in waste emissions: 200 kg/year



Clothes dryer made
at the Asahi Factory

Efforts to Prevent Pollution

Preparing for Emergencies

All offices run annual drills premised on adverse events, such as environmental accidents. To minimize environmental pollution 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

Protecting Biodiversity

Protecting the biodiversity that underpins social sustainability has become an urgent priority for humankind. Recognizing that business activities and biodiversity are interwoven, we support the Declaration on Biodiversity by Japan Business Federation (Keidanren) and are working to protect the environment.

Approach to Protection of Biodiversity

We have incorporated “consideration for biodiversity” into our ISO 14001:2015 environmental policy and are pursuing action in accordance with the following principles.



Rinnai Principles on Biodiversity

1. Recognition of the issues	Rinnai regards protection of biodiversity as a priority for corporate survival and incorporates it into its environmental policy.
2. Cultivation of awareness	Rinnai is committed to deepening understanding and cultivating awareness of biodiversity by creating opportunities for contact with nature, including through preservation and greenification activities undertaken around company premises.
3. Pursuit of business activities contributing to biodiversity	Rinnai recognizes that business activities and biodiversity are interwoven, and aims to develop conditions that allow biodiversity to be preserved through greater action to reduce environmental impacts.
4. Disclosure of information	Rinnai will publish details, both internally and externally, of its policy on and initiatives to protect biodiversity, and it aims to develop cooperation with local communities.

Cultivation of Awareness

Please see page 58 “Participation in the My Action Declaration project backed by UNDB-J”

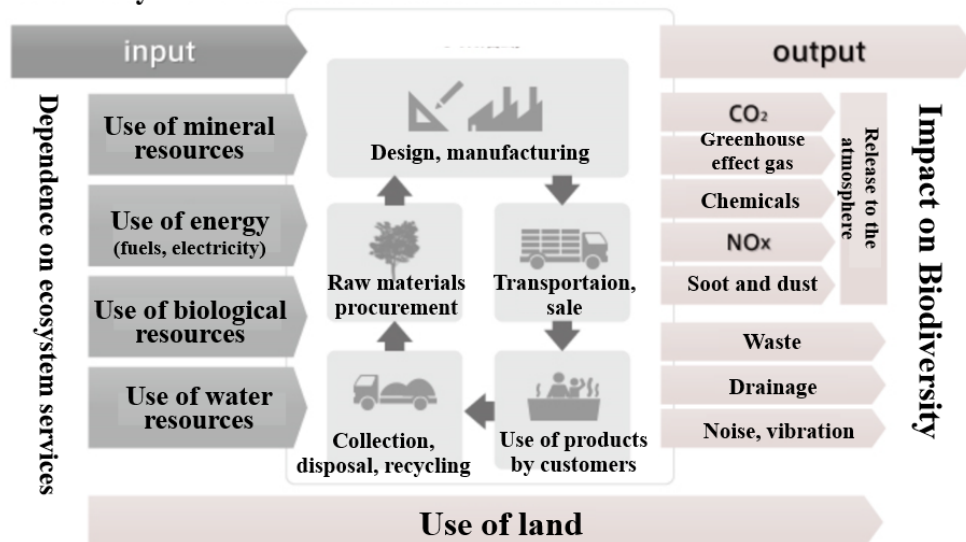
Protection of the Environment around Company Sites

Please see page 59 “Nature Ramble” and “Eradication of Invasive Species”.

Ties between Business Activities and Biodiversity

Action is being taken at all our plants and offices to protect diversity through initiatives to reduce the impact on the environment on a day-to-day basis (by reducing CO₂ and waste emissions, preventing atmospheric and water pollution, and so on).

Relationship between the Rinnai Group’s business activities and biodiversity



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

In fiscal 2017, at a manufacturing group company, BOD (biochemical oxygen demand) of the waste water exceeded the standard level of Pollution Control Agreement value determined by the city. We specified the pollution source and implemented measures in cooperation with the measurement company. By the water quality analysis results after the measures, the BOD is within the regulatory limits.

Measures to Improve Logistics

We are taking steps to improve our logistics operations in accordance with the energy-use rationalization plan that we formulated as a specified shipper under the Act on the Rational Use of Energy.

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 the status of energy usage through the distribution of products, and reviews distribution efficiency in cooperation with outside distributors. In multilateral and creative way, we promote the distribution efficiency to reduce energy usage.

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 CO₂ Emission

Fiscal year ended March 31	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Shipping volume (10 thousand ton x km)	6,687	6,587	6,836	6,763	6,429	6,228
CO ₂ emission volume (tCO ₂ e)	10,238	10,440	10,967	10,756	10,545	11,083

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

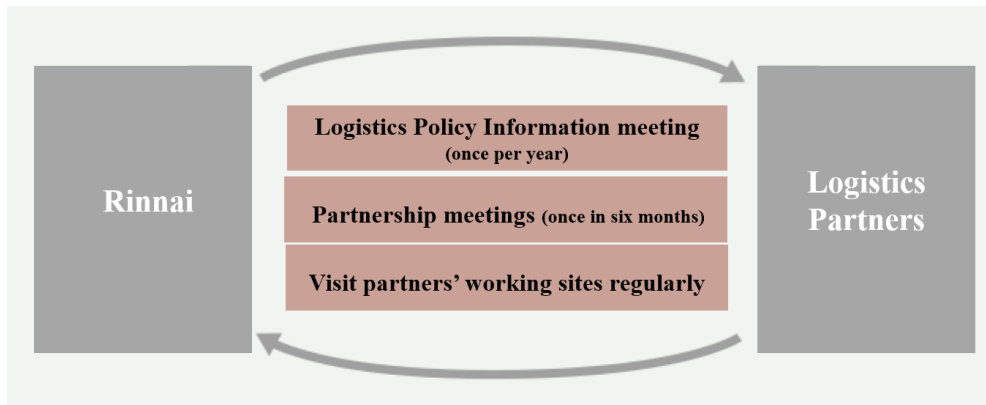
*Modal shift: Shift of transportation from roads to other forms of bulk transportation (rail or sea).



Improve carry efficiency by the shape change of a corrugated cardboard

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 partnership meetings once in six months 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.



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.



Anti-idling reminder
(Chugoku Sales Office)

Environment Education and Promotion of Awareness

To promote ongoing environmental activities, it is essential to improve environmental awareness of each employee. At Rinnai Group, 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 2017, from which 10 prize winners in categories including Manufacturing, Offices, Sales, and Contribution to Society were selected.

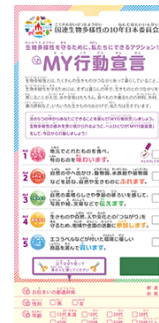


Award ceremony (left), and panel display showing outstanding achievements

Signing of the My Action Declaration

3,922 of our employees (equivalent to a 93% participation rate) have signed the “My Action Declaration” backed by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J), and this has enhanced their understanding of how to protect biodiversity.

We will pursue measures to mainstream biodiversity and encourage employees to think about and engage in protecting biodiversity in their daily lives and work by following the five actions specified in the “My Action Declaration” (eating, touching, communicating, protecting, and selecting).



Publication of In-house Environmental Newsletter *Eco no Coe*

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, Vol. 50, Summer Issue

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

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 150 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.



Growing *Aodai* cucumbers



A crop of *Aodai* cucumbers



A crop of *Yabuware* onions

*** 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.



Protection of the Environment around Company Sites

Nature Ramble

Discovering more about local nature is the first step in preserving biodiversity. A nature ramble around our Oguchi Factory in Niwa-gun, Aichi Prefecture, was therefore organized, and 46 species of plant were discovered during the two-hour walk. A native species of burnet was found to be surviving on a regularly mown embankment, while a species of tickseed called *Coreopsis lanceolate*, which has been designated an invasive species that takes over the habitat of native species, was discovered in the asphalt joints of a national highway. The ramble around a familiar landscape gave the participants fresh insights into nature and will contribute to future preservation work.



Observing the flora of a paddy field



Native species of burnet discovered



Marking the locations of plants
discovered on a map



Map of flora and fauna around Rinnai's Oguchi Factory (map data courtesy of Google and DigitalGlobe)

Eradication of Invasive Species (*Coreopsis Lanceolate*)

Our employees joined personnel from the Environment and Economy Section of Oguchi-cho's Industry and Construction Department and members of the Environment Group of the Environmental Promotion Office in the Facilities and Environment Department of the , Ltd., a local firm, in removing *Coreopsis lanceolate*, a species of plant that has been designated an invasive plant, from along a section discovered there during a nature ramble organized by Rinnai. Approximately 30 kg of the plant was collected and appropriately disposed.



Eradication work



Coreopsis lanceolate
(a specified invasive species)



Bags of *Coreopsis lanceolate* for disposal

Cleanup and Greenification Activities around Company Sites

Group employees periodically engage in cleanup and greenification activities around the Group's factories and along their commuting routes to help look after the natural environment around our operations. In fiscal 2017, a total of 2,855 employees took part in cleanup activities.



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.

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

Exchange Events (Visits) to Learn from Corporate Environmental Pioneers

Once per year to coincide with Environment Month in June, we organize an exchange event (visit) with a corporate environmental pioneer in order to learn about other companies' environmental technologies and facilities, and to create opportunities for personnel involved in environmental matters to share ideas and information.



Learning about other companies'
environmental initiatives

Participation in Environmental Exhibitions

Please see Page 116 “Exhibit at Eco Products”.

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.

Please see page 11 “Environmental Policy”

Please see page 64 “Environmental Action Plan and Performance”

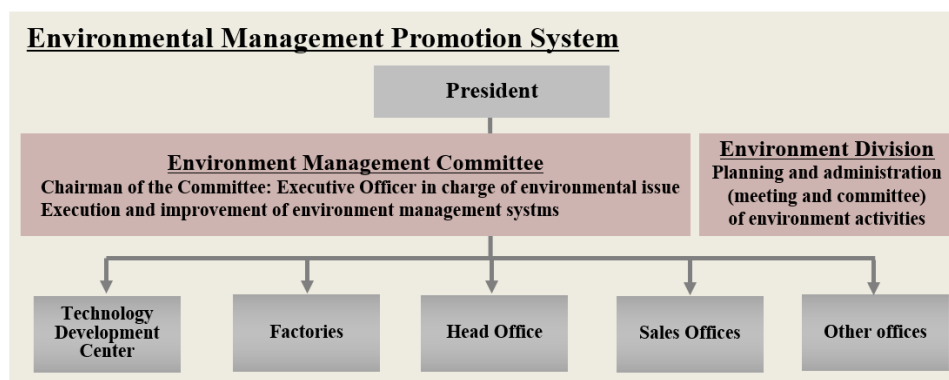
ISO 14001 Certification

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.

Please see page 73 “Environmental management system certification acquisition status”

Promotional Framework for Environmental Activities

Headed by the President, the Environment Management Committee guides corporate efforts to achieve targets of “7E Strategic Initiatives” environmental action plan. 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

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. In fiscal 2017, the routine audit reviewed the migration to ISO 14001:2015 version, and 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 2017 identified no major non-conformances, four areas for minor improvements, and 37 observations. The areas for minor improvements and observations were immediately addressed.

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.



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. In fiscal 2017, totally 30 employees participated in the training workshops.

“7E Strategic Initiatives” Environmental Action Plan and Results

We have formulated a “7E Strategic Initiatives” Environmental Plan that guides our ongoing efforts to improve environmental performance through environmental activities involving all our employees in every field of business. The following describes the targets, performance, and assessment of results in each area of 7E activity (E-Products, E-Factories, E-Marketing, E-Services, E-Offices, and E-Mind).

■ Key to self-assessment of annual target attainment

○ 100% Δ at least 70% × under 70%

Scope: Rinnai Corporation

Fiscal 2018 Environmental Action Plan and Targets (Fiscal 2018, ending March 31, 2018)

Field of Activity	“7E Strategic Initiatives” Environmental Action Plan (Fiscal 2016 – fiscal 2017)	Fiscal 2018 Targets
E-Marketing (Sales) E-Service (Installation & Repair)	Expansion of sales of high-efficiency products Contribution to 1,600,000 tCO ₂ reduction in CO ₂ emissions in water heater segment ¹	Contribution to reduction of CO ₂ emissions: 1,020,000 tCO ₂ /year
E-Products (Product Development)	Energy consumption and CO ₂ emissions Development of high-efficiency appliances for “zero energy homes,” ongoing action to reduce power consumption by products in standby mode and use	<ul style="list-style-type: none"> • Development of high-efficiency water heaters • Development of gas fan heaters that consume less gas due to the circulator effect
	Energy conservation and recycling Awareness of environmental impact at each stage of the product lifecycle from the planning and design stages, ongoing development of lighter, more compact products	<ul style="list-style-type: none"> • Product assessment (of all new products for the Japanese market) • Development of resource-saving appliances (by making them lighter and more compact, etc.)
E-Procurement	Promotion of supply chain management Collaboration with suppliers on environmental protection to improve environmental performance throughout the supply chain and ongoing green procurement management in compliance with applicable national regulations	<ul style="list-style-type: none"> • Exploration of ascertainment of environmental impact data (on CO₂ emissions, etc.) at suppliers • Procurement and use of materials in accordance with Rinnai’s E-Procurement Standards (green product development) • Maintenance and strengthening of management of chemical substances in compliance with applicable national standards

E-Mind (Employees)	<p>Disclosure of information on environmental activities and products</p> <ul style="list-style-type: none"> • CSR reports • CSR website • Tours of factories and sales showrooms nationwide • Environmental exhibitions, etc. 	<ul style="list-style-type: none"> • Publication of fiscal 2018 CSR Report • Disclosure of environmental information on website (CSR, society, environment), etc.
	<p>Environmental training and awareness raising Active environmental training of employees and continued raising of environmental awareness</p>	<p>Various training activities conducted in accordance with company and plant/office-level annual plans</p>
E-Factory (Production) ²	<p>Reduction of CO₂ emission intensity At least -8% relative to fiscal 2010 by fiscal 2018</p>	<p>At least -8% relative to fiscal 2010 by fiscal 2018</p>
	<p>Reduction of waste emission intensity At least -7% relative to fiscal 2011 by fiscal 2018 Maintenance of zero emissions (recycling rate of 99.5%+)</p>	<p>At least -7% relative to fiscal 2011 by fiscal 2018 Maintenance of zero emissions (recycling rate of 99.5%+)</p>
	<p>Reduction of water consumption intensity At least -7% relative to 2011 by fiscal 2018</p>	<p>At least -7% relative to fiscal 2011 by fiscal 2018</p>
	<p>Reduction of hazardous chemical³ usage intensity At least -7% relative to 2011 by fiscal 2018 (excluding brazing material)</p>	<p>At least -7% relative to fiscal 2011 by fiscal 2018 (excluding brazing material)</p>
E-Offices	<p>Green purchasing rate Continued maintenance at 91%+</p>	<p>Green purchasing rate of at least 91% at offices (based on value)</p>

Fiscal 2017 Environmental Action Plan and Performance

(Fiscal 2017, ended March 31, 2017)

Field of Activity	Fiscal 2017 Target	Fiscal 2017 Results	Assessment
E-Marketing (Sales) E-Service (Installation & Repair)	CO ₂ reduction contribution 1,200,000 tCO ₂ /year ¹	CO ₂ reduction contribution 980,000 tCO ₂ /year ¹	△
E-Products (Product Development)	Development of high-efficiency water heaters Reduction of standby electricity consumption in standby mode	High-efficiency products developed <ul style="list-style-type: none"> • High-efficiency gas water heaters for overseas markets • Kitchen appliances Standby electricity consumption reduced <ul style="list-style-type: none"> • Clothes dryers for overseas markets • Gas water/space heating heat sources 	○
	Resource conservation and recycling <ul style="list-style-type: none"> • Continued product assessment • Promotion of weight reduction and water conservation 	Products assessed Lighter products developed <ul style="list-style-type: none"> • Tabletop cookers for overseas markets • Gas fan heaters • Gas water/space heating heat sources Packaging simplified	○
E-Procurement	Promotion of environmental management throughout the supply chain <ul style="list-style-type: none"> • Green product development • Green procurement management 	<ul style="list-style-type: none"> • Investigated ways of ascertaining environmental impact data at suppliers (CO₂ emissions, etc.) • Materials procured and used following our E-Procurement Standards • Infrastructure for managing chemical substances developed and collaboration with suppliers strengthened 	○
E-Mind (Employees)	<ul style="list-style-type: none"> • Publication of fiscal 2017 CSR Report 	<ul style="list-style-type: none"> • Fiscal 2017 CSR Report published • Environmental information published on website 	○

	<ul style="list-style-type: none"> Disclosure of environmental information on website (CSR, society, environment) 		
	Planning and provision of various training in accordance with company and plant/office-level annual plans	Internal auditors trained, etc.	○
E-Factories (Production) ²	Reduction of CO ₂ emission intensity At least -7% relative to fiscal 2010	Reduced by 22% from fiscal 2010	○
	Reduction of waste emission intensity At least -6% relative to fiscal 2011 Maintenance and improvement of zero emissions	Reduced by 20.7% from fiscal 2011 Zero emissions maintained and improved	○
	Reduction of water consumption intensity At least -6% relative to fiscal 2011	Reduced by 24.9% relative to fiscal 2011	○
	Reduction of hazardous chemical ³ usage intensity At least -6% relative to fiscal 2011	Reduced by 29.1% relative to fiscal 2011	○
E-Offices	Attainment of green purchasing rate of 91%+ at offices (based on value)	Green purchasing rate (based on value): 96%	○

Notes: 1. CO₂ reduction contribution = reduction in CO₂ emissions compared to products sold in 2005 resulting from improved performance of Rinnai water heaters (estimated)
2. Intensity = load per standard unit defined by Rinnai
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, 2016 to March 31, 2017

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	2,209
	Environmental protection	Mainly efforts to save energy	1,045
	Resource recycling	Recycling as well as treatment and disposal of industrial waste	8,537
Upstream/downstream		Collection/recycling and volume/weight reduction of materials such as product packaging	706
Management activities		Mainly monitoring and surveillance of environmental impact	11,136
Research and development		R&D on environmentally conscious products addressing energy- and resource-saving features and reduction and/or elimination of hazardous chemical substances	103,767
Community efforts		Mainly community activities and beautification/greening at places of business and surrounding areas	167
Total			127,567

(Unit: Ten thousand yen)

	Item	Content	Environmental Impact Reduction
Environmental Protection Effect	On-site results	Saving energy reduced greenhouse gases	241 t /year

(Unit: Ten thousand yen)

Economic Effects Accompanying Environmental Protection Measures	Item	Economic Effect
	Costs cut through energy-savings and waste reduction	1,220

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.

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	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
	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
	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
	August	Published inaugural issue of Environmental Report
2001	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
2002	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
2003	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
	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	June	Environment Month event: Talk given at Rinnai by a corporate environmental pioneer
	October	Won Logistics Prize at Japan Packaging Contest 2004 for bathroom heater/dryer
2005	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	September	Participated in Team Minus 6%, a national movement to prevent global warming

2006	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	October	Won Electric Equipment Packaging Category Award in the Good Packaging division at Japan Packaging Contest 2006 for gas fan heater
2007	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
2008	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	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
2009	February	Market debut: <i>Eco-Jozu</i> hot-water/heating unit RVD-E Series
	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
2010	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
	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	September	Held the first Rinnai Group Environmental Awards ceremony
2011	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	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	September	Held the second Rinnai Group Environmental Awards ceremony
	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
2012	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	September	Held the third Rinnai Group Environmental Awards ceremony
	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
2013	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer

	September	Held the fourth Rinnai Group Environmental Awards ceremony
	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
2014	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	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	August	Won Large and Heavy Good Packaging Prize at Japan Packaging Contest 2014 for returnable package
	September	Held the fifth Rinnai Group Environmental Awards ceremony
	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
2015	April	Market debut: <i>Eco One</i> third generation hybrid water heater with heating systems
	June	Environment Month event: Organized an exchange event (visit) with a corporate environmental pioneer
	September	Held the sixth Rinnai Group Environmental Awards ceremony
2016	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
	June	Environment Month events: Issued new environmental cards to all Rinnai employees Organized an exchange event (visit) with a corporate environmental pioneer
	July	Participated in <i>COOL CHOICE</i> campaign, a new national movement to global climatic changes and reducing greenhouse effect gas
	August	Won Good Packaging Prize at Japan Packaging Contest 2014 for a bottom tray with parts box for important attachments
	September	Held the seventh Rinnai Group Environmental Awards ceremony
	December	Won Nagoya Municipal Industrial Research Institute Director's Award (for improvements targeting paper use along the supply chain) at 21st Resource Recycling Monozukuri Symposium IMS
2017	January	Presented a talk on Rinnai's environmental activities at the 20th Dialogue and Exchange Event hosted by EPOC Won the Energy Center Director's Award at the Energy Conservation Awards for third-generation <i>ECO ONE</i> hybrid water and space heating system
	June	Environment Month events: Organized action to eradicate a specified invasive species (<i>Coreopsis lanceolata</i>) Organized an exchange event (visit) with a corporate environmental pioneer 3,922 Rinnai employees participated in the My Action Declaration's five actions to protect biodiversity backed by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J)

Certification Acquisition Status

Environmental Management System International Standard [ISO 14001]

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

Scope of Calculation for Environmental Data

Target period: Fiscal 2017 (Japan: From April 1, 2016 to March 31, 2017,

Other countries than Japan: From January 1, 2016 to December 31, 2016)

Disclosed page	Data name	Scope of calculation
Environmentally Conscious <i>Monozukuri</i>	Impact on the Environment of the Rinnai Group	• CO ₂ emission • Energy use • Rinnai Corporation and its consolidated subsidiaries
	Efforts to Prevent Global Warming	Energy volume and consumption rate • CO ₂ emission • Waste emission • Water consumption • Hazardous chemical usage • Rinnai Corporation
	Action on Waste and Water Resources	
	Efforts to Prevent Pollution	
Measures to Improve Logistics	Improvements to Logistics	• Shipping volume • CO ₂ emission • Rinnai Corporation
“7E Strategic Initiatives” Environmental Action Plan	E-Marketing	• Reduction in CO ₂ emissions, etc.
	E-Factories	• CO ₂ emission intensity • Waste emission intensity • Water consumption intensity • Hazardous chemical usage intensity • Rinnai Corporation
	E-Offices	• Green purchasing rate
Environmental Accounting	—	Rinnai Corporation • Oguchi Factory • Seto Factory • Asahi Factory • Rinnai Parts Center • Production Engineering Division • Research & Development Headquarters • Environment Division
Reports by main office	• Rinnai Corporation • Consolidated subsidiaries (Manufacturing companies in Japan)	• Energy use • Emissions into the air (CO ₂ , NO _x) • Discharge of waste • Substances subject to the PRTR law • Air • Water discharge • Rinnai Corporation and its domestic consolidated subsidiaries (Manufacturing companies in Japan)

Initiatives for Safety and Peace of Mind

Aiming for the proliferation of safe and reliable gas stoves, with smiling families



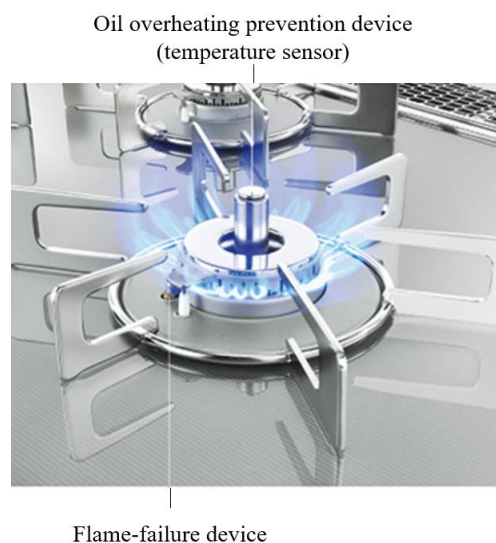
Our group, whose fundamental belief is, “Quality is our destiny,” manufactures products on the basis of “safety and peace of mind.” Minor failures or malfunctions in heat energy appliances, including gas appliances, could lead to serious accidents. We introduce initiatives for products to always be safe and reliable after their manufacture when in use by customers and until the end of their use.

Initiatives for fire accident prevention through proliferation of gas stoves with *Si* sensors

Many fire accidents in the home start from stoves in the kitchen, and among them it is said that many accidents occur when frying with oil. An accidental fire in the kitchen caused by cooking oil sometimes becomes a large fire, and not only valuable assets will be lost, but also it can lead to a fatal accident in the worst case.

In order to prevent such accidental fires in the kitchen, it has been required by law^{*1} since 2008 that all gas burners are fitted with safety sensors. We strive to prevent accidental fires through one-step advanced intelligent “stoves with *Si* sensors” fitted with national-standard safety functions of “oil overheating prevention devices” and “flame-failure devices,” both to prevent fire, and also fitted with useful functions to support cooking.

^{*1} Household gas stoves have become subject to government-designated regulations (indication of PSTG or PSLPG) by the Gas Business Act, and the Act on Securing Safety and Optimization of the Transaction of Liquefied Petroleum Gas. From this, it has been required that all burners are fitted with an “oil overheating prevention device” and a “flame-failure device” since October 1, 2008.



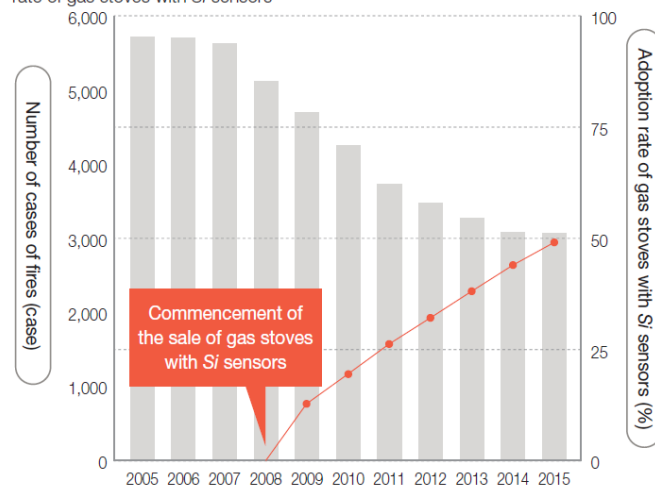
Proliferation of gas stoves with *Si* sensors and a decrease in the number of fire cases caused by gas stoves

The number of fire cases caused by gas stoves is steadily decreasing every year thanks to the increasing popularity of gas stoves with *Si* sensors. The number of cases of fire caused by gas stoves before 2008 was over 5,000 per year, but that had decreased to approximately 3,000 per year in 2015. The proliferation of gas stoves with *Si* sensors increased to a 49% share of the entire industry.^{*2}

We conduct activities to have people deepen their understanding about the safety of gas stoves with *Si* sensors through various exhibitions, a catalogue and website, etc. during 2017 as well, which is the 10th year since the birth of gas stoves with *Si* sensors.

^{*2} The number of fire cases from the White Paper on Fire Service, Ministry of Internal Affairs and Communications

We prepared the adoption rate of gas stoves with *Si* sensors based on the shipping statistics of the Japan Industrial Association of Gas and Kerosene Appliances and the number of households in the basic resident register.

Changes in the number of fire cases caused by gas stoves and the adoption rate of gas stoves with *Si* sensors^{*2}

Rinnai gas stove with *Si* sensors by pursuing safety and user-friendliness

Rinnai gas stove with *Si* sensors has its original features, such as an extinguishing function by detecting burning and temperature adjustment function in addition to functions set by national standards and industrial standards.^{*3} We offer more comfortable and reliable stoves.

^{*3} Standards for gas stoves with *Si* sensors by the Safe Advanced Gas Appliances Proliferation And Development Study Group

Function of gas stove with *Si* sensor

[Rinnai gas stove with *Si* sensor]

- Extinguishing function by detecting burning
- Temperature adjustment function
- Rice function
- Kettle function
- Pan detection function

[Gas stoves with *Si* sensors in the industry]

- Extinguishing function by forgetting to switch off stove
- Extinguishing function by forgetting to switch off grill
- Automatic temperature control function by detecting high temperature

[National standard]

- Oil overheating prevention device
- Flame-failure device

Initiatives for Safety and Peace of Mind

Realizing a “safe and reliable,” “comfortable,” and “useful” cooking environment with a gas stove called delicious, *DELICIA*

The top priority for gas appliances is safety. However, it cannot be said to be a good cooking device if the cooking method is restricted by the pursuit of too much “safety.” The “gas stove called delicious, *DELICIA*” realizes a “comfortable” and “useful” cooking environment by securing “safety functions” that enhance safety, while fitted with various functions that enable a wide range of cooking, and also enhanced “cleanability.”



New
DELICIA
Gas stove called delicious

DELICIA was born in 2007, the year before all gas burners were required to be fitted with safety sensors. *DELICIA* is a top-ranked gas stove model that has kept enhancing safety from its birth until today, and continues to evolve and add user-friendly functions in response to customer feedback.

Safety and reliable function

Added a “pan detection function” and “extinguishing function by detecting burning” to a traditional *Si* sensor

In addition to the basic functions of an *Si* sensor, such as the “oil overheating prevention device” that enables frying with peace of mind by preventing the pan from overheating, and the “flame-failure device” which stops gas upon detecting flame failure caused by cooking spills and wind, etc., it is fitted with a “pan detection function” that prevents the ignition without a pan in place and reduces the flame when lifting the pan, and an “extinguishing function by detecting burning” that automatically extinguishes the flame before a pan is damaged by burning while cooking a stewed dish, etc.



“Stop function upon detecting an earthquake” automatically extinguishes the flame during an earthquake of intensity 4 and above

One of the causes that increases damage during an earthquake is fire. We added a “stop function upon detecting an earthquake” which automatically extinguishes the flame if a gas stove itself detects a tremor with a seismic intensity of 4 and above.



In order to prevent an accident at the time of ignition, prevent setting fire to one’s sleeve by using a medium flame

If it flares up when lighting the stove, there is a possibility that the sleeve might catch fire. To prevent such an accident at the time of ignition, we introduced a system to start with a medium flame on the high heat burner. In addition, it is fitted with an “ignition disable function” to prevent ignition by incorrect operation and/or mischief by children, and an ignition confirmation display function so that ignition and extinguishing can be seen without seeing the burner area of the stove.

Linked with a range hood in order to ensure ventilation and reduce electricity consumption

In igniting or extinguishing the flame of a gas stove, it is fitted with a function to automatically operate/stop a range hood fan. Ventilation that is essential when using a gas appliance proceeds.



Comfortable and useful functions

Professional technique at home with cooking automatically linked to application

We started *DELICIAPP*, an application for smartphones, with abundant recipes overseen by food specialists, such as a food coordinator and nutritionist, on August 1, 2016. After selecting the dish you want to cook, you prepare the ingredients according to the recipe, and set them in the cooker. Tap the smartphone and send the data to the stove, which starts cooking automatically. Leave the strength of the heat, timing of heating and turning off the flame to the stove. You can also know the remaining cooking time through the application's screen. Since a dish can be ready almost automatically, anyone can cook without failure. Recipes are updated weekly according to seasons and trends. No more struggle to plan menus, and your cooking repertoire will widen.



Prevent burning by dissipating and radiating the glass-top heat, and improved cleanability

The glass top of a gas stove traditionally tended to get hot from the stove's flame, so we adopted our unique easy-clean structure. By installing an aluminum panel on the back of the glass-top plate, heat around the gas burner is dissipated and radiated to constrain a glass-top surface temperature increase. Compared to the traditional glass-top, temperature around the burner is reduced by approximately 66°C°. When cooking is spilled or oil is splashed, it can be wiped immediately, and it eliminates burning of the cooking and improves cleanability. You can keep it clean with simple care.



Propose a Cocotte dish, which increases the range of cooking and makes cleaning easy, in order to use a grill effectively

A grill is not only for grilled fish but also a cooking device that can be utilized for various dishes. However, it is pointed out that cleaning inside the grill is tedious after use, so we have proposed a Cocotte with a lid to use inside the grill. Because it has a lid, splashing oil is slight, and the ease of cleaning inside the grill has improved remarkably. When using the Cocotte, the oil splashed is only 1 mg*. It was traditionally necessary to clean the gridiron, grill plate, grill door, etc., but you only need to wash the Cocotte in *DELICIA*. It significantly reduces the labor of cleaning. The range of cooking has expanded to cakes, non-fry cooking, gratin, and stews. It also has a smoke-off function that burns out oil and smells generated during cooking. By installing an exclusive burner at the rear inside the grill, smoke emitted from the exhaust port and smell can be cut by 81% and 99%, respectively, compared to those grills that do not have this function.



* Testing method: Grill two Pacific sauries on a gridiron and Cocotte, and leave them after cooking them for 30 seconds in the grill, keeping the door closed. Measure the splashing to the cleaning parts inside the grill (excluding gridiron and Cocotte) five times and calculate the average. Use auto grill "broiled with the shape intact, standard mode" for the gridiron and "Cocotte, fish, strong mode" for the Cocotte. (Rinnai estimate)

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"	We provide highly safe products that meet customers' requirements.

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.

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.

Check the state of use in various environments, using the actual appliance, and utilize it for development

The important point in the development and design of gas stoves with *Si* sensors is to consider the impact of the external environment. Flames come directly from a gas stove, and it is difficult to eliminate the danger of fire and burn injury through improper use. However, we resolve problems by assuming all sorts of situations, such as in what situation it is used, and how customers use it, in order to ensure safety. Therefore, we check flame shape and color, the effect of wind, impacts due to gas stove structure and installation location, by using the actual appliance and by conducting diverse verification, such as actually cooking in various ways.



Kazushi Nishiguchi

Kitchen Appliance Design Office, Product Development Division II, Research & Development Headquarters

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 that 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."

Ensuring "safety and peace of mind" through inspection by machines and humans

[Inspection by machines]

Automatic inspection is conducted by equipment in the factory to check if a gas stove with *Si* sensors correctly detects the temperature of the bottom of a pan. The inspection device applies a heated heater to "the part of the temperature sensor that detects the heat," and it is automatically inspected if a gas stove flaming condition changes correctly from a small flame mode to an extinguishing mode by temperature sensor. On the assembly line, this inspection is conducted for the entire number of stoves.



Inspection of the entire number of temperature sensors on the assembly line of gas stoves

[Inspection by humans]

For an area in which the machine cannot determine, a human performs inspections in the product inspection process on the assembly line. They inspect if it flames normally and that gas is not leaking at the time of dynamic pressure by actually lighting a gas stove. It is necessary to have a high level of knowledge about gas stoves when conducting this product inspection; such an inspection is conducted only by those employees who have passed the exam for product inspectors, conducted in the company.

Making Improvements with Our Suppliers

See page 92 “Communication with 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

Providing information smoothly through the Internet

With the proliferation of smartphones and tablets, we provide various information via our corporate website and product information website.

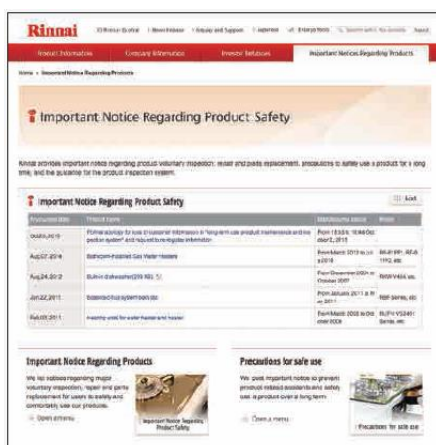
In 2016, our corporate website was renewed and improved to modify the Inquiry and Support page in a simple format, and to display those pages frequently visited such as Office List as a top page, etc. We also implement optimal display for viewing on mobile devices such as smartphones, and strive to provide information smoothly in consideration of the Internet use environment.



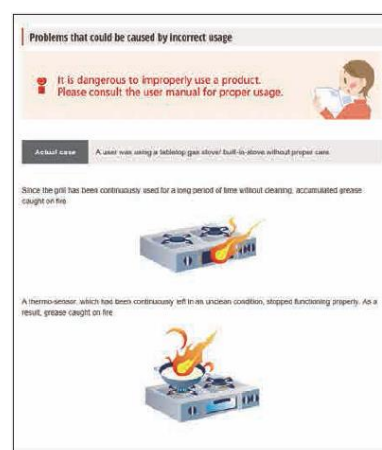
Disclosure of Information on Safety

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

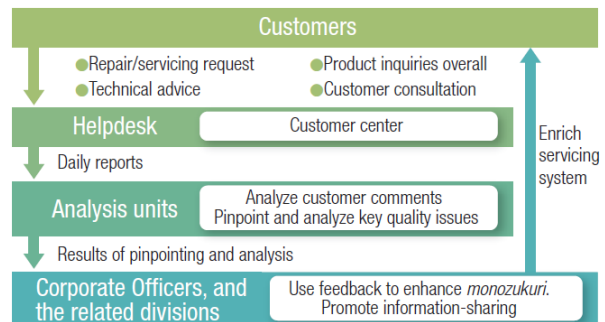
In keeping with our corporate philosophy that “Quality is our destiny,” we aim to respond sincerely, promptly, and appropriately to customer requests and queries, and to provide reliable services that deliver satisfaction and peace of mind to the customer.

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 2017, we received approximately 786,000 calls from customers and around 5,959 comments via our website.

In fiscal 2017, we received the following scores based on customer questionnaires.

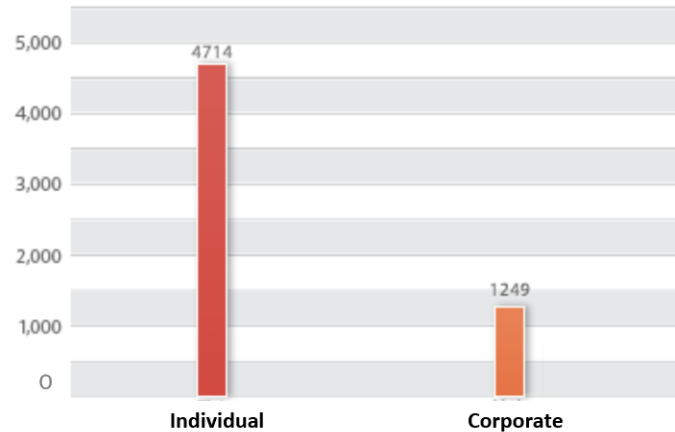
- Ease of contacting Customer Center via toll-free number 79.0 points
- Politeness of telephone operator 83.1 points
- Overall score 81.0points



Customer center

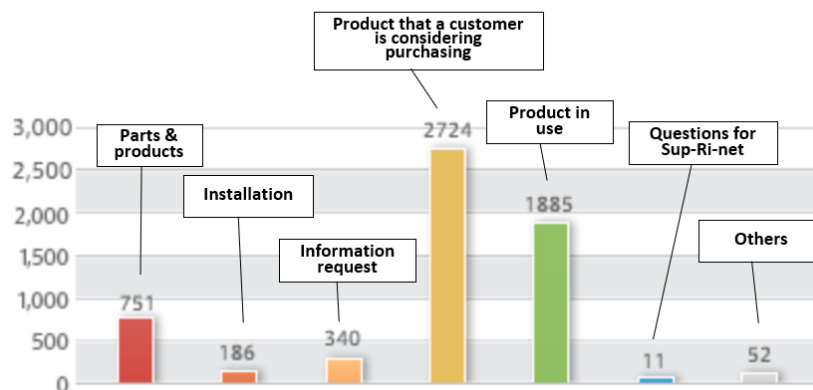
Our Customers' Comments (Customers' comments and inquiries through our website in fiscal 2017)

1. Number of inquiries by customer type



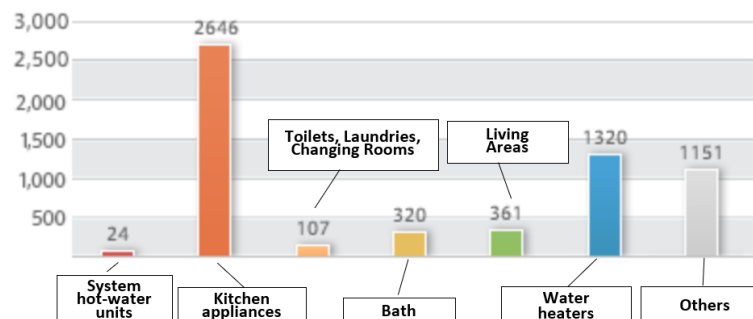
The breakdown of inquiries from customers is 79% from individuals and 21% from companies.

2. Number of inquiries by category



There are the three major topics: (1) Product in use: 45.8%, (2) Product that a customer is considering purchasing: 31.7%, (3) Parts & products: 12.6%

3. Number of inquiries by product



Many inquiries were kitchen appliances-related.: (1) Kitchen appliances: 44.6%, (2) Water heater and bath-related products: 22.3%

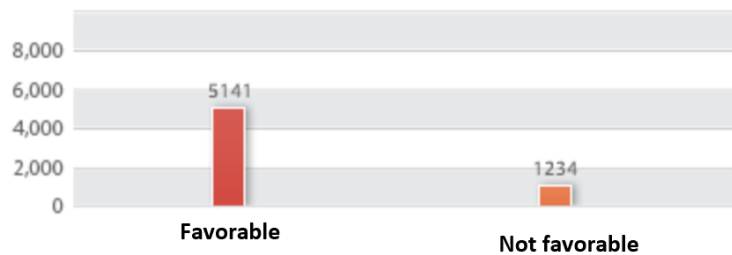
Enhancement of Online Support

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

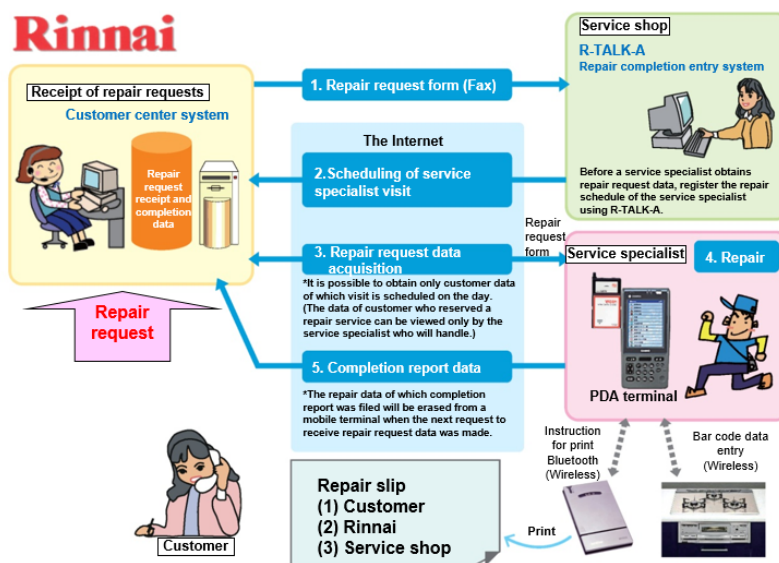


After-Sales Service

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

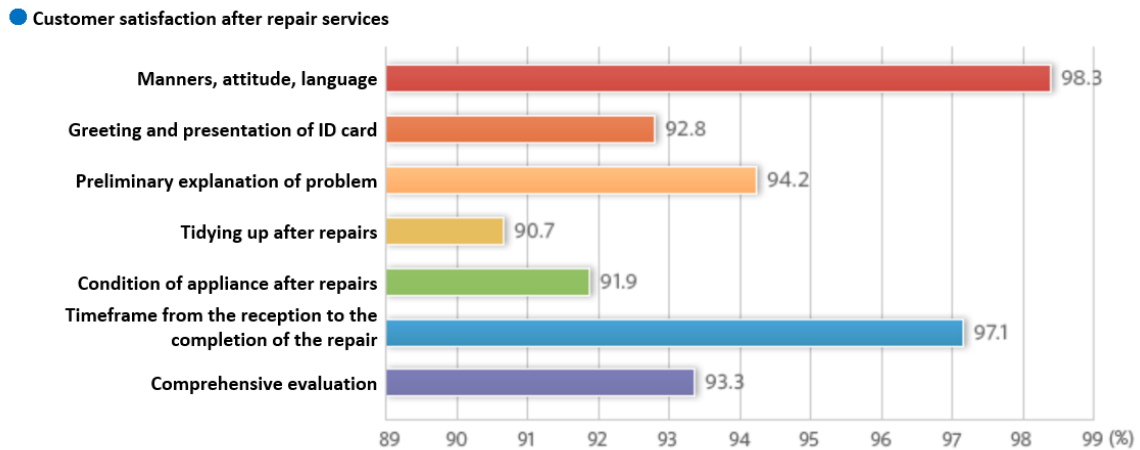
Speeding Up After-Sales Service

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 2017, a total of 18,000 questionnaires were completed by consumers, and average satisfaction was 94.6 (out of 100).



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 maintenance and inspection call 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)

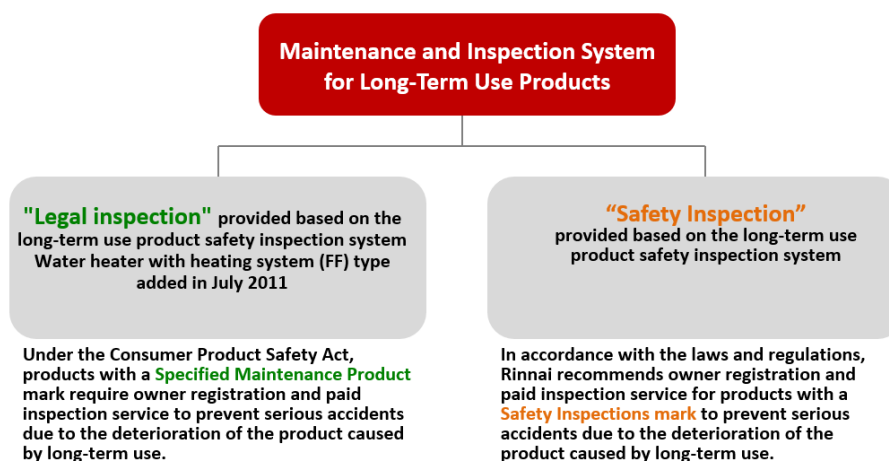
Efforts to Coordinate an Inspection System

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.

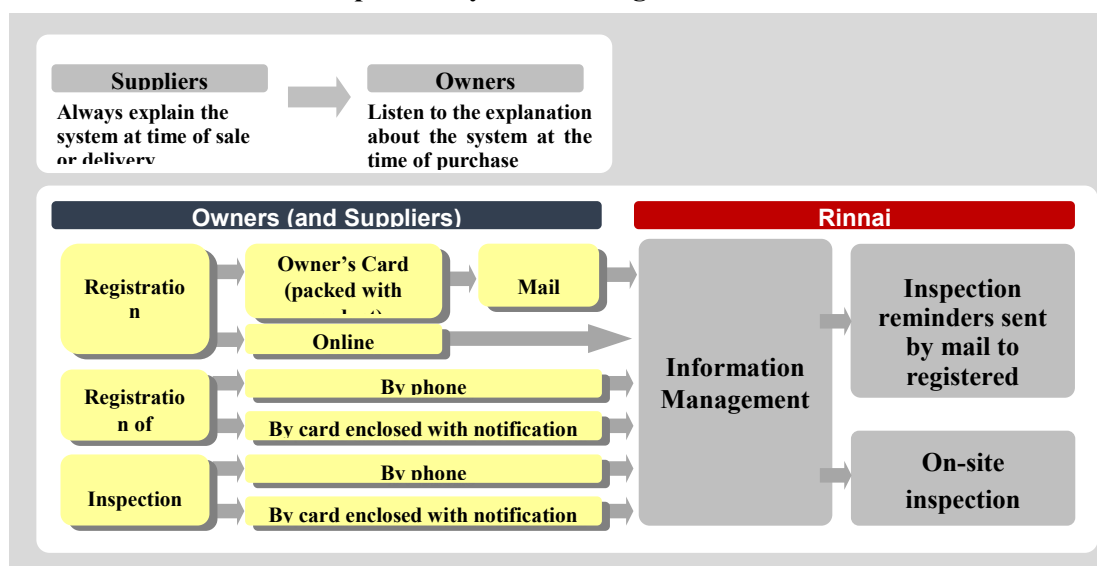
The period for legal inspection of commercial-use equipment produced in April 2009 started in October 2011, so we began sending notices on the inspection to applicable customers. About 70% of customers who responded to the notices applied for the inspection, suggesting their high interest in the inspection 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 inquiry 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 Stakeholders

Communication with Customers

Customer Satisfaction Review, and Improvement of Products and Services

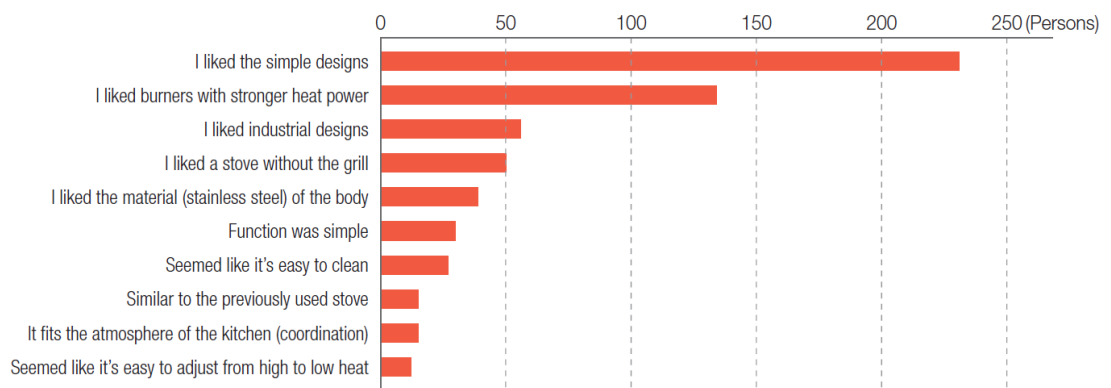
Through communication with users, we strive to improve the products and services by understanding customer satisfaction, complaints, and points of improvement toward our products.

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 ask customers who have purchased the product for a survey to help us improve our products and services.

Among the results of the survey regarding “Reason for purchasing,” “I liked the simple designs” and “I liked burners with stronger heat power” were the answers given most, showing that this product planning was successful in gaining customer acceptance.



[Reason for purchasing *Vamo.* (single answer) top 10]



[Population subjected to survey] Customers who have purchased *Vamo.* through dedicated website

[Survey period] November 17, 2015 to March 31, 2016 (initial sales period: November 17, 2015 to November 30, 2015)

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 2017, the number of registered members exceeded 550,000, providing even more opportunities for contact with users of our products. To keep in touch with members' needs, we conduct online questionnaires (annually more than 20 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 2017, we have received a total of 67,248 comments to date.



Sunflower Messenger

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 Shareholders and Investors

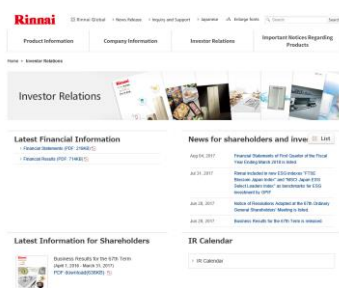
Policy on Information Disclosure

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 67th term at the Meitetsu New Grand Hotel in Nakamura-ku, Nagoya, on June 28, 2017. 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 also make these notices as easy to read and navigate as possible by, for example, printing them in large format and providing indexes to them. 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

Factory Tour and Talk Session for Private Investors

On June 23, 2017, we held a factory tour and talk session with Commons Asset Management, Inc. for private investors. A Seto Factory tour was to deepen understandings of manufacturing as well as our initiatives such as corporate philosophy, management policy, business strategy, and overseas deployment through interactive sessions.

Sharing “Invisible values” through factory tour

We had a tour at the Seto Factory, the main factory producing water heaters. It was a very valuable experience as an investor to be able to tour the factory, the heart of the Rinnai whose philosophy is “Quality is our destiny.” The factory was managed under 4S (Seiri, Seiton, Seiso, Seiketsu—sorting, setting-in-order, cleaning, cleanliness) in every hole and corner, and I was impressed with the commitment toward manufacturing. The smiles of the guides were especially memorable. I felt that they were feeling proud of their work and their company. At Rinnai, where “everyone participates” with a “handmade-feel” as a very attractive culture, “Invisible values” was there to support continuous value creation that cannot be read from the financial statements.



Ken Shibusawa,
Chairman, Commons Asset
Management, Inc.

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.

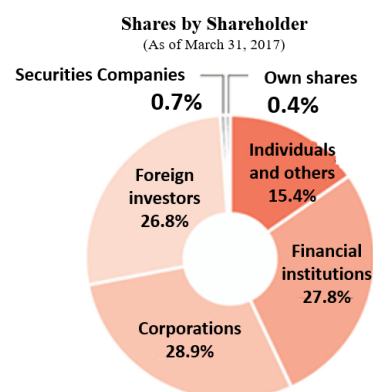
Share Information (As of March 31, 2017)

Number of authorized shares: 200,000,000 shares

Number of outstanding shares: 52,216,463

(Including treasury stock)

Number of shareholders: 4,002



International Reputation for CSR

Rinnai has been selected for inclusion in the FTSE4Good Global Index, a worldwide socially responsible investment (SRI) index, for 14 consecutive years since 2004. Also, in July 2017, we were selected for the FTSE Blossom Japan Index and MSCI Japan ESG Select Leaders Index, which are ESG investment indexes.



Communication with Business Partners

Rinnai Group Purchasing Policy

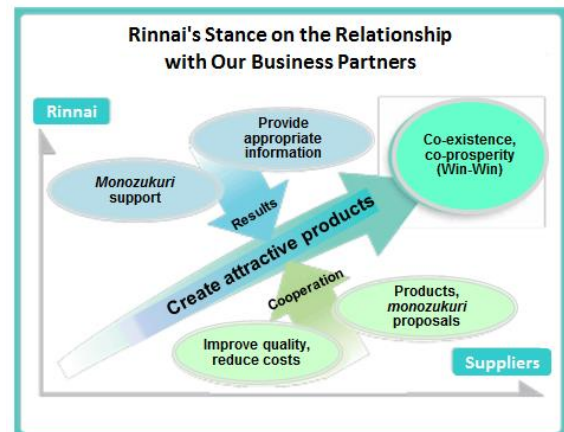
To grow along with our suppliers, we emphasize transactions based on a fair and impartial assessment and selection process and respect for laws and regulations and corporate principles, in accordance with the Rinnai Group Purchasing Policy.

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 Business Partners

We organize 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).



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 2016, and a total of 26 competitors took part: 14 from the Rinnai Group and 12 from our logistics partners.



Forklift contest

Communication with 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	92 people
New employee follow-up training	Generalists (Clerical and sales employees) in their 1st year, Generalists (technical employees) in their 2nd 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)	90 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)	90 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	47 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	47 people
Reviewer training Follow-up training	Employees whose duties require them to interview subordinates and review their performance	Review of personnel systems • Understanding of objectives and methods of performance reviews • Improvement of interview skills through interview practice	79 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 was posted from the Overseas Business Headquarters to our Dubai Representative Office 18 months ago. The Dubai office is responsible for sales, marketing, and technical support targeted at customers in the Middle East and Africa, which Rinnai sees as major growth markets going forward. There also remain untapped markets for us in these regions, and establishing a foothold in these markets is another of the Dubai office's missions. We do business with customers of all ethnicities, and what is normal practice in Japan often does not apply here. I believe my experience here has taught me how to convey our position better while respecting local approaches through daily communication. Although being responsible for a market with such considerable potential puts you under pressure, I aim to transform this pressure into a sense of fulfilment and make my own contribution to the development of the Rinnai brand.



Koji Teramoto
Dubai Representative Office

From Our Employees Seconded Overseas (2)

I have been working for Shanghai Rinnai since February 2017, after being engaged in the development of water heaters for the Water Heater System Development Office in the Research & Development Headquarters. At Shanghai Rinnai, I provide overall support for water heaters and boilers being developed in Shanghai both for domestic and overseas destinations by applying my experience in Japan.

As the market in China is expanding, there are many competitors and the market is evolving quickly. Even in such a challenging environment, I would like to continue to provide support in order to timely develop products that customers need.

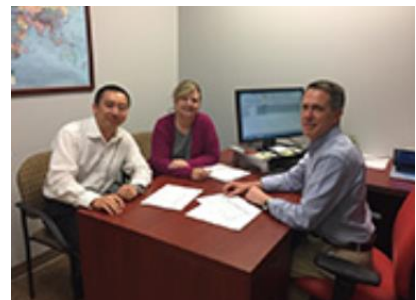
Although it is sometimes difficult to deal with our differences in language, culture, and attitude toward work, I would like to do my best in product development, believing that an attitude of working patiently is of the utmost importance.



Yasutaka Ueda,
Shanghai Rinnai Co., Ltd.

From Our Employees Seconded Overseas (3)

I joined Rinnai as a mid-career hire and spent my first five years or so working on agency sales, marketing, distributor sales, and product planning. I was then posted to Rinnai America, where I have now been for the past six months. Here, I work with local hires from a range of departments in areas including business management, supply chain management, finance, internal controls, and product planning. My assignment here has involved me in a wide range of such work with our overseas distributors, and I feel that I have grown as a result. Although I had previously worked overseas in a regional headquarters, I get a real thrill now from being involved in implementing strategy at an overseas distributor and having more contact with customers nearer the marketplace. Looking ahead, I want to contribute to accelerating the Rinnai Group's development of operations overseas by being closely involved in the distributor business.



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 washerStudying 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 2017 >

Program and measure	Content	Number of users	
		Fiscal 2017	Fiscal 2016
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.	95	90
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	106	69
Child nursing leave	An employee can take up to ten days leave per year (20 days per year if nursing two or more children)	16	15
Extended family care leave	In principle, total 93 days of leave (more than once, up to three times) may be granted per one family member who falls in to the subject of the care.	0	1
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 more than once during three years from the starts of use of this program per such family member.	0	0
Family care leave	An employee can take up to 10 days leave per year (20 days per year if two or more family members require care)	2	3
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.	2	3
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	

General Employer Action Plan

We draw and implement the general employer action plan (The fourth plan, from fiscal 2016 to fiscal 2020) based on Act on Advancement of Measures to Support Raising Next-Generation Children.

Measures to Enrich Our Employees' Family Lives

Rinnai regularly holds a labor-management council in order to share the opinions of each company workplace, and to find ways to improve in an effort to nurture workplace environments and a corporate climate that our employees are proud of working in.

We share challenges specific to each business location and review existing systems to promote improvement. In fiscal 2017, we encouraged employees to take paid leave, introduced a new allowance called Urban Allowance, and held nursing care seminars. We also help to support the cost of health promotion events held by the Employees' Association, including the sports event, the bowling competition, and the walking festival. In development bases and factories, we work with the Employees' Association to host workplace tours to help employees' families better understand our work.

<Major Programs in Fiscal 2017>

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)	1,521
Walking Festival (Higashiyama Zoo)	1,516
Kanto Festival (Kasai Rinkai Park)	216
Nationwide BBQ event, in Hokkaido, Tohoku, Niigata, Hokuriku, Shizuoka, Chugoku, Shikoku, and Kyushu	668



Chubu Sports Festival



Nationwide BBQ event (Hokkaido)

34th 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 1,516 employees and family members participated in the 34th annual event.



Training Seminar by Age	Number of participants
Personality design seminar	90
Life design seminar	99
Self-realization seminar	107
New employee communication seminar	90



Life design seminar



New employee communication seminar

We value the connection of people to promote our activities

The Rinnai Employees' Association holds various training sessions, hosts recreational events, and issues corporate magazines advocating the "company's prosperity and well-being of employees" as a basic principle. We particularly place importance on the connection of people for our activities so that employees as well as their family members can feel glad that they or their family members work for Rinnai.

Following the rising trend of the percentage of female employees in recent years, we continue to work to improve corporate systems and workplace environments to flexibly deal with upcoming changes in employment environments, such as declining birthrate, promotion of female workers, and nursing care demands.



Michihiro Hashimoto,
Chairman of
Rinnai Employees' Association

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.

In accordance with the revision of Equal Employment Opportunity Law and Child Care and Family Care Leave Law, we revised our inhouse rule to prevent any harassment related to pregnancy, childbirth, family care leave. We clearly determined the detailed act of prohibiting harassment and disciplinary action based on the rules of employment if an employee has violated.

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.

Increase of Female Employment and Support for Their Active Role

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.

At Hot.Lab, our interactive facility, female employees called Life Creators demonstrate and promote our products to customers. Life Creators across the country gather every year to exchange their opinions. They share their opinions on product functions, designs, and methods of demonstration to contribute to the development of new products and the improvement of product promotion.



We also actively employ female science and engineering graduates. The Production Engineering Division began to employ more female graduates for career-track positions from fiscal 2014. Currently, three female employees in the career-track positions are working in various projects in the Production Engineering Department, contributing new ideas and opinions while deepening their understanding of manufacturing.

Our division produces metal dies for use in factories. While many people may think metal dies are heavy, dangerous, and may be the last option for women to work with, I analyze the workability of products prior to production using the CAE simulation.

My work directly impacts the form of products, so I actively propose ideas to improve workability, ease of use, and design from the viewpoint of customers. My proposals have been reflected in many of our products, which has given me a sense of accomplishment. There are more opportunities for female employees in the Production Engineering Division. I continue to strive to deliver good products to customers by incorporating ideas from a perspective that is distinctly female.



Satoko Miwa,
Die Machinery Office,
Production Engineering Division

<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 Program)	A program that enables former employees to return to work as a 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 171 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 1.87%. 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 2018 Basic Policy on Safety and Hygiene

- (1) Create safe and reliable work environment
- (2) Maintain and improve work environment
- (3) Promote measures to support for health improvement
- (4) Promote crisis management
- (5) Personnel training through safety education and workshops
- (6) Promote traffic safety activities

Status of On-the-Job Accidents and Injuries

In fiscal 2017, 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 32 on-the-job accidents (6 decrease comparing to the previous year).

In response, under the improvement plan for fiscal 2018, we will implement “job accident analysis and relapse prevention” and “implementation of the safety patrol at the workplace which job accidents often occurred” as priority measures.

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 raise employee's awareness of traffic safety, various measures and education programs are provided. As a traffic accident "zero day" activity, our employees call for traffic safety in the streets. As a new employee training, we execute practical training, risk prediction course, and aptitude test at the driving school. 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. We introduced Telematics, safe driving eco-drive promotion system, and check daily driving status and analyze the data efficiently from the view point of safety and ecology.



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

We work with the Rinnai Health Insurance Union to provide a wide range of support for employees and their dependent family members including regular health checkups, complete medical checkups, and various screenings for stomach cancer, colon cancer, breast cancer, cervical cancer and prostate cancer. We officially introduced a Data Health Plan in fiscal 2017, in which employees at the age of 35 and older are subject to guidance for the prevention of metabolic syndrome, and dedicated health guidance and personalized support are provided for diabetic patients who have not received any treatment. We also lowered the starting age eligible for the Health Visit to 55 for parents of employees in order to raise health awareness for employees' families as well as the employees themselves.

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

We strive to promote a healthy work environment by providing mental health care to prevent any sort of mental health issues before they occur and to quickly discover any stress-related issues.

During fiscal 2017, we held 16 different self-care seminars and seminars for administrators that included 321 employees with the goal of having employees notice when they are stressed and how to cope with it best.

Following the system to check employees' stress instituted in 2016, we began holding seminars in this fiscal year on how to utilize the results of the stress check in a group level. Three new locations have been added for these seminars to disseminate the importance of mental health to more employees.



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

External Acclaim and Recognition

Selected as 2017 Health and Productivity Company for Two Consecutive Years

Rinnai was selected in February 2017 by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange as a 2017 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 2015 to introduce attractive companies to investors that place a focus on improving company value from a long term perspective.

Our company was selected as a Health and Productivity Company for the second year in a row in the metal products category of the Tokyo Stock Exchange for our support for promoting employees' work and life balance through mental health care and personalized health support and activities.

* Health and Productivity Company is a registered trademark of workshop for the Management of Health on Company and Employee (nonprofit organization).



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 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)	Fiscal 2017 (At March 31, 2017)
Rinnai Corporation	Male	2,536	2,495	2,520
	Female	1,094	1,084	1,122
Domestic Group Companies	Male	1,107	1,112	1,487
	Female	567	562	687
Overseas Group Companies	Male	3,032	3,231	3,277
	Female	1,346	1,456	1,419
Total		9,682	9,940	10,512

Number of full-time employees by region (consolidated, year-end)⁸⁹

		Fiscal 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)	Fiscal 2017 (At March 31, 2017)	Composition
Japan	Male	3,643	3,607	4,007	-
	Female	1,661	1,646	1,809	-
	Sub-total	5,304	5,253	5,816	55.3%
Asia excluding Japan	Male	2,549	2,592	2,604	-
	Female	1,141	1,171	1,143	-
	Sub-total	3,690	3,763	3,747	35.6%
North America, and Europe	Male	106	123	138	-
	Female	43	46	51	-
	Sub-total	149	169	189	1.8%
Other (Oceania, South-America)	Male	377	516	535	-
	Female	162	239	225	-
	Sub-total	539	755	760	7.2%
Total		9,682	9,940	10,512	100%

Number of employees (non-consolidated)

		Fiscal 2015 (At March 31, 2015)	Fiscal 2016 (At March 31, 2016)	Fiscal 2017 (At March 31, 2017)
Newly recruited employees	Male	73	82	57
	Female	39	47	35
Mid-career recruitment	Male	7	7	7
	Female	6	3	8
Average working years		14.2	14.7	15.1
Average age (years old)		36	36.5	36.8
Separation rate (%)		2.4	2.3	2.1
Paid leave utilization ratio (%)		41.6	42.3	50.3
Employment rate of persons with disabilities (%)		1.72	1.82	1.87
Number of employees who used childcare leave		81	90	95
Proportion of employees who return to work after taking parental leave (%)		96	90	95
Number of employees who used shortened work hours		68	69	106
Number of employees who used the work-from-home program		2	3	2
Annual non-scheduled working hours per employee		216	227	225
Annual total actual working hours per employee		2012	2028	2019
Number of on-the-job accidents		26	38	32

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 2016

The Company has taken part in the EcoPro exhibition since 2013, the environmental exhibition hosted by Nikkei Inc. and the Japan Environmental Management Association for Industry. A characteristic of this exhibition is that it is often visited by business people and the general public, and also elementary and junior high school students on field trips. During EcoPro 2016, nearly 2,000 elementary and junior high school students visited our booth to learn about the energy used in homes and our environmental and energy-saving products.



Clothes Drying Services for Typhoon Victims

Rinnai Korea conducted a free repair of products and free clothes drying service using gas clothes dryers for typhoon victims when Typhoon No. 18 in 2016 flooded the rivers affecting Ulsan, a southeastern city in Korea. The service was carried out for four days from October 6, 2016 to October 9, 2016; a total of 45 units of products were repaired and approximately 408 kg of clothes were dried.



Central Italy Earthquake Relief Efforts

Rinnai Italy bought food directly from the local small to medium-sized businesses and donated them to customers to help areas devastated by the M6.2 Central Italy earthquake in August 2016 to support the locals. We bought approximately 6,000 euros (about 750,000 yen) worth of amatriciana spaghetti and sauce, a pasta that originated in Amatrice, which was near the epicenter that had devastating damage, and assorted ingredients (ham and cheese) and recipes as well as cheese and chocolates, canned as a gift, and delivered to customers.



Relation to the Nakagawa Canal

The Company has been headquartered in Nakagawa-ku, Nagoya-shi, Aichi for 97 years. Nakagawa Canal near our headquarters once served as an important logistic waterway linking the heart of Nagoya and the port. The Company is committed to contribute to the community through involvement in the Nakagawa Canal to appreciate the local people with warm support.



View north from Nagara-bashi Bridge on the Nakagawa Canal

Participation in Nakagawa Canal Dragon Boat Race Tournament

In September 2016, The 7th Nakagawa Canal Dragon Boat Race Tournament (sponsored by the Nakagawa Canal Dragon Boat Race Festival Executive Committee) took place using Nakagawa Canal. The Company sponsored this tournament and 45 employees participated in the boat race. As a part of this event, we participated in a friendship race in which we boated with local children, and built a good relationship with residents and local businesses.



The 7th Nakagawa Canal Dragon
Boat Race Tournament

Support for Nakagawa Canal Restoration and Cultural/Artistic

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 fifth year, the project has drawn steadily growing awareness among local residents and artists and triggered interest in the Nakagawa Canal.

Photo caption: Navigational Chart “artery of sound” by Yoko Takayama x Yasuda Nao (ARToC10 granted artist)



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 2017

- * 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)
- * *Haruhime Dochu* (Spring Queen Parade) at Honmaru Network
- * Youngsters' Science Festival 2016
- * Chinese Spring Festival in Nagoya
- * Misonoza Kinshu Nagoya Kaomise Kabuki
- * International Children's Art Contest at Expo 2017 in Astana, Kazakhstan
- * RoboCup 2017 World Championship Nagoya
- * Exhibition of Mural Paintings in the Mieido at Toshodaiji
- * Project to Preserve Traditional Japanese Culture

Supplemental Data 1: Major Site Report 2017

Oguchi Factory

Target period: April 1, 2016 - March 31, 2017

Location	Kaechi, Oguchi-cho, Niwa-gun, Aichi
Number of employees	858
Business	Manufacture of gas equipment
Land area	48,352 m ²
Total floor space	37,093 m ²
Commenced operations:	1964
Acquisition of ISO14001 certification:	October 1997



Major production items



Gas stoves



Built-in ranges



Dishwashers and others

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
446.9	77.4	5.4	29.0

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
3,311.0	2.7

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 (%)
5,318	0.0	0.0	5,318	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	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
53	Ethyl benzene	1,500.0	1,400.0	0.0	0.0	0.0	0.1	16.0
80	Xylene	2,300.0	2,300.0	0.0	0.0	0.0	0.1	50.0
296	1,2,4-trimethylbenzene	1,200.0	1,200.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	2,000.0	1,800.0	0.0	0.0	0.0	0.0	200.0
309	Nickel compounds	910.0	0.0	0.0	0.0	0.0	1.9	46.0
405	Boron compounds	2,600.0	0.0	0.0	0.0	0.0	2.2	130.0

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

Air

Equipment	Substance	Regulation value	Voluntary	Actual value (Maximum)
Baking furnace	Soot and dust	0.25	0.16	0.001
	NO _x	180	150	82.2
Boiler	Soot and dust	0.10	0.08	0.002
	NO _x	150	96	68.2

 *Soot and dust: g/m³N
 *NO_x: ppm

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	421.0	112.2
pH	5.7 - 8.7	5.8 - 8.7	7.1	7.0
BOD	300	240	150.0	73.0
SS	300	240	94.0	34.0

* Water discharge standard:

Sewer discharge standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand

* SS: Concentration of aqueous suspended solids

Supplemental Data 2: Major Site Report 2017

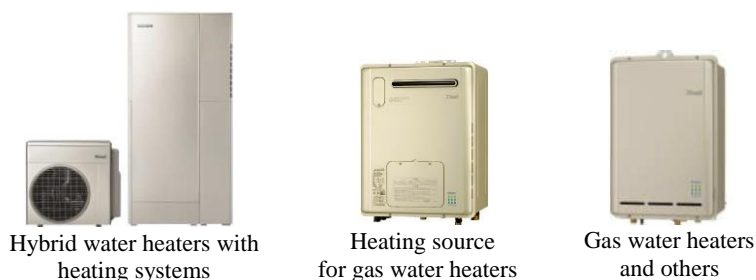
Seto Factory

Target period: April 1, 2016 - March 31, 2017

Location	Anada-cho, Seto-shi, Aichi
Number of employees	793
Business	Manufacture of gas equipment
Land area	42,649 m ²
Total floor space	27,351 m ²
Commenced operations	1979
Acquisition of ISO14001 certification	December 2000



Major production items



Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
698.5	67.2	26.2	15.6

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NOx emissions (t)
4,313.0	3.3

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 (%)
1,788.5	0.0	0.0	1,788.5	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	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
53	Ethylbenzene	1,700.0	1,500.0	1.0	0.0	0.0	0.0	190.0
80	Xylene	2,200.0	2,000.0	1.0	0.0	0.0	0.0	190.0
87	Chromium and chromium (III) compounds	3,000.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	1,300.0	800.0	1.0	0.0	0.0	0.0	510.0
308	Nickel	5,100.0	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	Voluntary	Actual value (Maximum)
Boiler	Soot and dust	0.10	0.05	<0.002
	NOx	150	79	32.5

*Soot and dust: g/m³N
*NOx: ppm

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	76.0	50.3
pH	5.8 - 8.6	6.0 - 8.4	7.6	7.4
BOD	25 (20)	20	1.9	1.1
COD	25 (20)	20	6.0	2.4
SS	30 (20)	20	2.3	1.6

* Water discharge to: The Yatoko River

* Water discharge standard:

River discharge standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand (mg/l)

* COD: Chemical oxygen demand (mg/l)

* SS: Concentration of aqueous suspended solids (mg/l)

* () Daily average

Supplemental Data 3: Major Site Report 2017

Asahi Factory

Target period: April 1, 2016 - March 31, 2017

Location	Nishiyama-cho, Owariasahi-shi, Aichi
Number of employees	286
Business	Manufacture of gas equipment
Land area	17,772 m ²
Total floor space	7,619 m ²
Production started	1960
Acquisition of ISO14001 certification	January 2003



Major production items



Gas fan heaters


 Gas clothes
dryers

 Bathroom
heaters/dryers

 Fan-forced
gas heaters

 Infrared heaters
and others

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
151.1	18.8	2.7	4.4

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
938.0	0.8

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 (%)
601.7	0.0	0.0	601.7	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	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
53	Ethylbenzene	5,300.0	570.0	0.0	0.0	0.0	6.0	940.0
80	Xylene	12,000.0	1,300.0	0.0	0.0	0.0	6.0	1,000.0
296	1,2,4-trimethylbenzene	1,700.0	150.0	0.0	0.0	0.0	6.0	340.0
300	Toluene	8,500.0	1,800.0	0.0	0.0	0.0	6.0	5,700.0

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

Air

Equipment	Substance	Regulation value	Voluntary	Actual value (Maximum)
Drying furnaces	Soot and dust	0.20	0.108	0.009
	NOx	230	200	48.0

*Soot and dust: g/m³N
*NOx: ppm

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	90.0	16.0
pH	5.7 - 8.7	5.9 - 8.5	7.4	7.1
BOD	300	210	140.0	103.9
SS	300	210	62.0	45.3

* Water discharge standard:
Sewer discharge standard
* The amount of discharge: m³/day
* pH: Concentration of hydrogen ions
* BOD: Biochemical oxygen demand (mg/l)
* SS: Concentration of aqueous suspended solids (mg/l)

Supplemental Data 4: Major Site Report 2017
Yanagisawa Manufacturing Co., Ltd.

Target period: April 1, 2016 - March 31, 2017

Location	Yanagi-machi, Kadoma-shi, Osaka
Number of employees	330
Business	Manufacture of gas equipment
Land area	20,098 m ²
Total floor space	19,314 m ²
Production started	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)

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
194.8	35.9	0.1	6.3

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
1,543.0	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 (%)
442.5	0.0	0.0	442.5	100.0

Air

Equipment	Substance	Regulation value	Voluntary	Actual value (Maximum)
Boiler	Soot and dust	0.10	0.10	0.0020
	NO _x	150	150	49.0
Baking furnace	Soot and dust	0.10	0.10	0.0020

*Soot and dust: g/m³N
*NO_x: ppm

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	63.7	53.0
pH	5.0 – 9.0	5.9 - 8.5	7.3	7.0
BOD	600	300	98.0	52.7
SS	600	300	110.0	55.1

* Water discharge standard:
Sewer discharge standard
* The amount of discharge: m³/day
* pH: Concentration of hydrogen ions (mg/l)
* BOD: Biochemical oxygen demand (mg/l)
* SS: Concentration of aqueous suspended solids (mg/l)

Supplemental Data 5: Major Site Report 2017

Rinnai Technica Co., Ltd.

Target period: April 1, 2016 - March 31, 2017

Location	Sakagawa, Kakegawa-shi, Shizuoka
Number of employees	603
Business	Manufacture of gas equipment
Land area	28,610 m ²
Total floor space	19,314 m ²
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 and others

Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
313.3	500.7	15.0

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NOx emissions (t)
2,722.4	2.4

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 (%)
1,144.0	5.6	0.0	1,138.4	99.5

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	82.0	49.3
pH	5.8 – 8.6	6.3 – 8.1	7.5	7.3
BOD	25 (20)	20 (15)	19.0	6.4
COD	160 (120)	20 (15)	5.5	4.9
SS	50 (40)	30 (20)	7.8	3.5

* Water discharge to: The Ohta River

* Water discharge standard:
River effluent standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand
(mg/l)

* COD: Chemical oxygen demand
(mg/l)

* SS: Concentration of aqueous
suspended solids (mg/l)

* () Daily average

Supplemental Data 6: Major Site Report 2017

GASTAR Co., Ltd.

Target period: April 1, 2016 - March 31, 2017

Location	Yamato-shi, Kanagawa
Number of employees	814
Business	Water heater business, TES business, and Housing equipment business
Land area	17,358 m ²
Total floor space	21,120 m ²
Commenced operations	1959
Acquisition of ISO14001 certification	October 2001



Major production items:



Heating source for water heaters



Water heater with bath-filling system



Japanese-style balance-type bath heating systems

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
325.2	64.5	15.2	2.0

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
2,695.6	2.1

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 (%)
618.0	0.0	0.0	617.6	99.9

Air

Equipment	Substance	Regulation value	Voluntary	Actual value (Maximum)
Boiler	Soot and dust	0.10	0.08	<0.0012
	NO _x	150	120	29.0
Baking furnace	Soot and dust	0.20	0.16	<0.0014
	NO _x	180	144	51.0

 * Soot and dust: g/m³N
 * NO_x: ppm

Water discharge; Yamato Area (Head office and Factory)

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	229.0	147.7
pH	5.0 – 9.0	5.2 – 8.8	8.0	7.0
BOD	600	480	16.0	8.7

 * Water discharge standard:
 Sewer discharge standard
 * The amount of discharge: m³/day
 * pH: Concentration of hydrogen ions
 * BOD: Biochemical oxygen demand (mg/l)
 * SS: Concentration of aqueous suspended solids (mg/l)

Water discharge; Yamato Area (Laboratory building)

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	1,108.0	355.3
pH	5.8 - 8.6	6.0 - 8.4	8.1	7.9
BOD	15	12	5.0	5.0
COD	25	20	5.0	5.0
SS	40	32	5.0	5.0

* Water discharge to: The Sakai River
 * Water discharge standard:
 River discharge standard
 * pH: Concentration of hydrogen ions
 * BOD: Biochemical oxygen demand (mg/l)
 * COD: Chemical oxygen demand (mg/l)
 * SS: Concentration of aqueous suspended solids (mg/l)

Supplemental Data 7: Major Site Report 2017

Target period: April 1, 2016 - March 31, 2017

RB Controls Co., Ltd.; Head office, Kanaiwa Factory, and Tsurugi Factory

Location	Head office: Kannondo-machi, Kanazawa-shi, Ishikawa Kanaiwa Factory: Kanaiwa Higashi, Kanazawa-shi, Ishikawa Tsurugi Factory: Oyanagi-machi, Hakusan-shi, Ishikawa
Number of employees	685
Business	Manufacture of gas equipment components
Land area	Head office:3,691 m ² , Kanaiwa:6,587 m ² , Tsurugi: 17,636 m ²
Total floor space	Head office:2,892 m ² , Kanaiwa:5,890 m ² , Tsurugi: 10,495 m ²
Commenced operations	1971
Acquisition of ISO14001 certification	March 2006


Major production items


Electronic control units



High voltage units



Bathroom waterproof TV



Bathroom LED lights and others

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
554.4	2.5	297.5	17.2

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
3,087.7	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 (%)
397.0	13.8	4.6	378.5	95.3

Substances subject to the PRTR Law*; Head office and Kanaiwa Factory

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
31	Antimony and its compounds	3,300.0	0.0	0.0	0.0	0.0	0.0	3,300.0
186	Methylene dichloride	1,200.0	0.0	0.0	0.0	0.0	0.0	1,200.0
265	Tetrahydromethylphthalic anhydride	18,000.0	0.0	0.0	0.0	0.0	0.0	18,000.0
448	Methylenebis (4,1-phenylene) diisocyanate	3,400.0	0.0	0.0	0.0	0.0	0.0	0.0
460	Tritolyl phosphate	3,800.0	0.0	0.0	0.0	0.0	0.0	3,800.0

*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	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
186	Methylene dichloride	1,100.0	0.0	0.0	0.0	0.0	0.0	1,100.0
448	Methylenebis (4,1-phenylene) diisocyanate	34,000.0	0.0	0.0	0.0	0.0	0.0	0.0
460	Tritolyl phosphate	47,000.0	0.0	0.0	0.0	0.0	0.0	47,000.0

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

Supplemental Data 8: Major Site Report 2017

Target period: April 1, 2016 - March 31, 2017

Rinnai Precision Co., Ltd.; Head office, Komaki Factory and Kani Factory

Location	Head office and Komaki Factory: Shimobata, Oaza Honjo, Komaki-shi, Aichi Kani Factory: Himegaoka, Kani-shi, Gifu
Number of employees	674
Business	Manufacture of gas equipment components
Land area	Head office and Komaki Factory: 20,303 m ² Kani Factory: 10,341 m ²
Total floor space	Head office and Komaki Factory: 20,202 m ² Kani Factory: 5,944 m ²
Commenced operations	1979
Acquisition of ISO14001 certification	December 2005


Major production items


Gas cock parts



Gas valve parts



Gas control units



Solenoid water valve and others

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
1,420.5	140.1	88.1	82.9

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NOx emissions (t)
8,899.4	7.0

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 (%)
2,298.0	11.1	0.0	2,287.0	99.5

Water discharge; Head office, Komaki Factory

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	18.0	12.0
pH	5.7 - 8.7	6.0 - 8.4	7.9	7.1
BOD	300	300	140.0	81.0
SS	300	300	26.0	12.3

* Water discharge standard:

Sewer discharge standard

 * The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand (mg/l)

* SS: Concentration of aqueous suspended solids (mg/l)

Water discharge; Kani Factory

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	18.0	12.0
pH	5.8 - 8.6	5.8 - 8.6	7.5	6.9
BOD	15	15	5.0	2.0
COD	30	30	2.4	2.4
SS	30	30	5.0	3.0

* Water discharge to: The Kani River

* Water discharge standard:

River discharge standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand

(mg/l)

* COD: Chemical oxygen demand (mg/l)

* SS: Concentration of aqueous suspended solids (mg/l)

Supplemental Data 9: Major Site Report 2017

RT Engineering Co., Ltd

Target period: April 1, 2016 - March 31, 2017

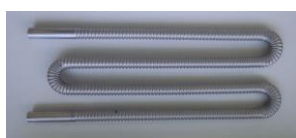
Location	Kamiike-cho, Toyota-shi, Aichi
Number of employees	148
Business	Manufacture of gas equipment and components
Land area	12,119 m ²
Total floor space	7,026 m ²
Commenced operations	1950
Acquisition of ISO14001 certification	March 2006



Major production items



Machined copper pipe parts



Machined stainless steel parts



Machined iron pipe parts and others

Energy use

Electricity (10,000 kWh)	City gas (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
213.2	13.5	4.0	19.4

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NOx emissions (t)
1,163.6	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 (%)
559.6	5.8	0.0	553.7	99.0

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	16.5	16.0
pH	5.7 - 8.7	5.7 - 8.0	7.3	7.0
BOD	300	150	8.0	3.4
SS	300	150	11.0	2.3

* Water discharge standard:

Sewer discharge standard

 * The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand (mg/l)

* SS: Concentration of aqueous suspended solids (mg/l)

Supplemental Data 10: Major Site Report 2017

Japan Ceramics Co., Ltd

Target period: April 1, 2016 - March 31, 2017

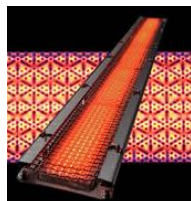
Location	Himegaoka, Kani-shi, Gifu
Number of employees	90
Business	Manufacture of gas equipment components
Land area	8,030 m ²
Total floor space	5,756 m ²
Commenced operations	1981
Acquisition of ISO14001 certification	January 2006



Major production items



Ceramic plates for burners



Industrial burners



Functional coatings and others

Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
198.6	517.5	3.6

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
2,312.3	2.1

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 (%)
272.8	67.3	0.0	205.5	75.3

Substances subject to the PRTR Law*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
53	Ethylbenzene	1,800.0	1,400.0	0.0	0.0	0.0	0.0	350.0
80	Xylene	2,500.0	2,000.0	0.0	0.0	0.0	0.0	460.0
300	Toluene	11,700.0	10,000.0	0.0	0.0	0.0	0.0	1,400.0
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	Voluntary	Actual value (Maximum)
Baking furnace	Soot and dust	0.125	0.125	0.017
	NO _x	90	90	10.0
	SO _x	0.25	0.25	0.02

 * Soot and dust: g/m³N

 * NO_x: ppm

 * SO_x: m³N/h

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	10.8	8.9
pH	5.8 - 8.6	5.8 - 8.6	7.5	7.1
BOD	15 (10)	15	19.0*	6.5
COD	160 (120)	30	12.0	12.0
SS	30 (25)	30	6.0	2.9

* Water discharge to: The Kani River

* Water discharge standard:

River discharge standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand

(mg/l)

* COD: Chemical oxygen demand

(mg/l)

* SS: Concentration of aqueous

suspended solids (mg/l)

* () Daily average

*Wastewater analysis detected BOD levels in excess of the pollution control agreement with Kani-shi.

We implemented measures, including steps to remove sludge, as we believed higher BOD levels was due to samples being taken after long consecutive holidays when no inflow occurred and a build-up of sludge. Since then, water analysis has shown water quality is within stated limits.

Supplemental Data 11: Major Site Report 2017

Noto Tech Co., Ltd

Target period: April 1, 2016 - March 31, 2017

Location	Nakanoto-machi, Kashima-gun, Ishikawa
Number of employees	196
Business	Manufacture of gas equipment components
Land area	23,152 m ²
Total floor space	13,773 m ²
Commenced operations	1990
Acquisition of ISO14001 certification	January 2007



Major production items



Enamel components



Gloss enamel countertop



Resin components



Remote controllers for bath filling systems

Energy use

Electricity (10,000 kWh)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
226.8	886.2	6.7

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NO _x emissions (t)
3,533.2	3.2

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 (%)
2,093.0	360.5	47.8	1,684.7	80.5

Substances subject to the PRTR Law*

(Unit: kg)

Number	Class I designated chemical substance name	Handling amount	Amount of emission/discharge				Amount of transfer	
			Emissions into the air	Discharge into public waters	Discharge into the soil at the relevant office	Landfill at the relevant office	Transfer to sewers	Transfer outside the relevant office
31	Antimony and its compounds	10,800.0	0.0	0.0	0.0	0.0	0.0	0.0
71	Ferric chloride	4,500.0	0.0	0.0	0.0	0.0	0.0	0.0
309	Nickel compounds	1,600.0	0.0	4.0	0.0	0.0	0.0	850.0
405	Boron compounds	10,600.0	0.0	260.0	0.0	0.0	0.0	6,000.0

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

Air

Equipment	Substance	Regulation value	Voluntary	Actual value (Maximum)
Baking furnace	Soot and dust	0.25	0.22	<0.001
	NO _x	180	160	24.0

* Soot and dust: g/m³N

* NO_x: ppm

Water discharge

Substance	Regulation value	Voluntary	Actual value	
			Maximum	Mean
Amount of discharge	—	—	70.0	60.0
pH	5.8 - 8.2	6.0 - 8.2	7.1	7.0
BOD	40 (30)	36 (27)	7.0	4.0
COD	160 (120)	140 (100)	12.0	11.0
SS	40 (30)	36 (27)	2.0	1.8

* Water discharge to: The Nagaso River

* Water discharge standard:

River effluent standard

* The amount of discharge: m³/day

* pH: Concentration of hydrogen ions

* BOD: Biochemical oxygen demand

(mg/l)

* COD: Chemical oxygen demand

(mg/l)

* SS: Concentration of aqueous

suspended solids (mg/l)

* () Daily average

Supplemental Data 12: Major Site Report 2017

Techno Parts Co., Ltd.

Target period: April 1, 2016 - March 31, 2017

Location	Ichinomiya Office: Nishiougaido Aza Toukouji, Ichinomiya-shi, Aichi Land area: 2,003 m ² , building floor space: 1,455 m ²
	Ida Office: Ida-cho, Owariasahi-shi, Aichi Land area: 4,127 m ² , building floor space: 2,549 m ²
	Akatsuki Office: Akatsuki-cho, Seto-shi, Aichi Land area: 33,333 m ² , building floor space: 3,029 m ²
	Komaki Office: Oaza Mitsubuchi, Komaki-shi, Aichi Land area: 2,611 m ² , building floor space: 1,776 m ²
	Asahi Office: Nishiyama-cho, Owariasahi-shi, Aichi Land area: 206.69 m ² *In Asahi Factory (assembly section)
Number of employees	400
Business	Assembly and processing of components of heat-energy appliance
Acquisition of Eco action 21 certification	August 2011



Major production items



Ichinomiya Office



Ida Office



Akatsuki Office



Komaki Office

Energy use

Electricity (10,000 kWh)	City gas (13A) (10,000 m ³)	LP gas (t)	Other fuels (kl) (crude oil equivalent)
59.2	4.6	0.5	0.0

Emissions into the air

CO ₂ emissions (tCO ₂ e)	NOx emissions (t)
328.0	0.2

Discharge of waste

Amount of waste generated (t)
55.0