

Fuji Electric Report

2019

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### Editorial Policy

Fuji Electric Reports are important communication tools that are prepared and published for the purpose of facilitating understanding of the Company's corporate activities among its shareholders, investors, and various other stakeholders.

In preparing *Fuji Electric Report 2019*, we sought to foster understanding with regard to Fuji Electric's efforts to create value over the medium-to-long-term. This report thus compiles information on corporate activities aimed at contributing to the realization of a sustainable society through energy and environment businesses. The presentation of this information is framed in the new medium-term management plan announced in June 2019 and incorporates the perspective of contributions to the accomplishment of the United Nations Sustainable Development Goals (SDGs).

### Information Disclosure Venues

Fuji Electric Reports include highlights of financial information as well as non-financial information pertaining to social and environmental issues. More detailed financial information can be found in the Company's financial results summaries and securities reports (Japanese only) on its investor relations website. Additional non-financial information is available in the form of detailed explanations of Fuji Electric's social and environmental initiatives on the Company's corporate website.

#### Investor Relations Website:

<https://www.fujielectric.com/ir/>

#### Environmental, Social, and Governance Website:

<https://www.fujielectric.com/company/csr/>

### Disclaimer Regarding Forward-Looking Statements

Statements made in this report regarding estimates or projections are forward-looking statements based on the Company's judgments and assumptions in light of currently available information. Actual results may differ materially from those projected as a result of uncertainties inherent in such judgments and assumptions as well as changes in business operations or other internal or external conditions. Accordingly, the Company gives no guarantee regarding the reliability of any information contained in these forward-looking statements. Investors are encouraged to also reference documents submitted by the Company in accordance with the Financial Instruments and Exchange Act of Japan and other disclosure materials.

## Corporate Philosophy

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### Corporate Mission

We, Fuji Electric, pledge as responsible corporate citizens in a global society to strengthen our trust with communities, customers and partners.

Our mission is to:

- Contribute to prosperity
- Encourage creativity
- Seek harmony with the environment

### Slogan

To be enthusiastic, ambitious and sensitive.

## Management Policies

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- Through our innovation in energy and environment technology, we contribute to the creation of responsible and sustainable societies.
- Achieve further growth through our global business expansion.
- Maximize our strengths as a team, respecting employees' diverse ambition.

## Brand Statement

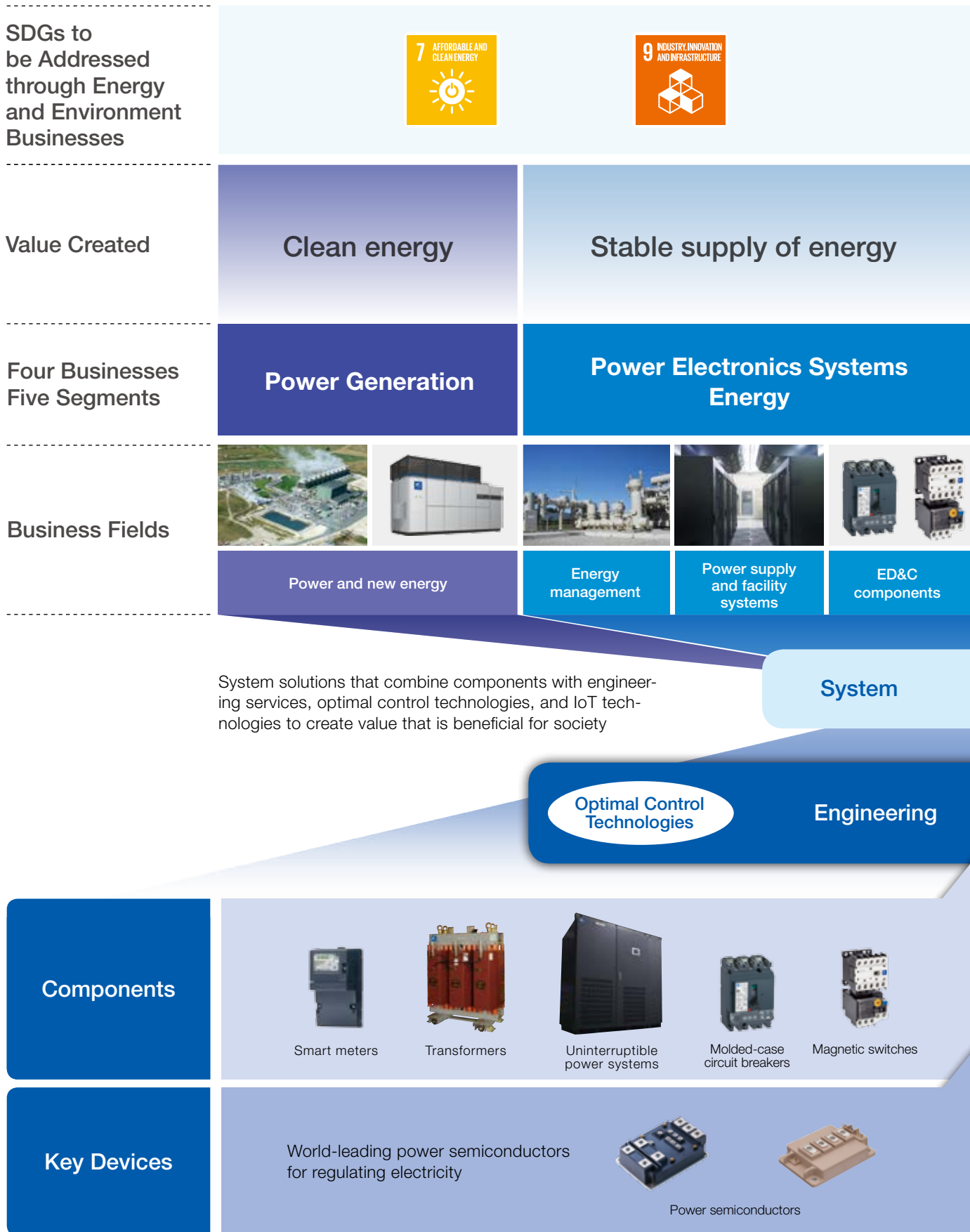
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# *Innovating Energy Technology*

### Brand Promise

Through our pursuit of innovation in electric and thermal energy technology, we develop products that maximize energy efficiency and lead to a responsible and sustainable society.

# Fuji Electric's Energy and Environment Businesses



Fuji Electric is committed to thoroughly exercising synergies between its core power semiconductor and power electronics technologies. By combining high-quality equipment employing key devices with engineering services, optimal control technologies, and IoT technologies developed through frontline operations, we will make contributions to the creation of responsible and sustainable societies in industrial and social infrastructure fields.



Automation Energy saving

Automation  
Energy saving

Power Electronics Systems  
Industry

Electronic  
Devices

Food and Beverage  
Distribution



Factory automation

Social  
solutions

Semiconductors

Vending  
machines

Store  
distribution

Solutions

Services

IoT



Inverters



Motors



Servo systems



Controllers



Measuring  
instruments



Sensors

Sensors utilizing various applied technologies that underpin safe operations

Internet of Things (IoT): Framework for fundamentally revolutionizing business and our daily lives by connecting various objects through networks and enabling them to achieve optimal, autonomous control of one another



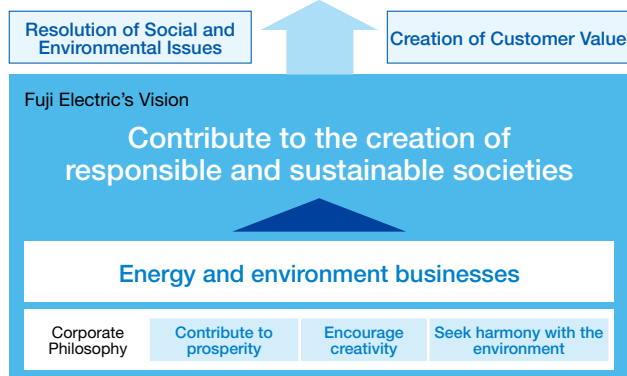
## President's Message

### Start of FY2023 Medium-Term Management Plan—Reiwa Prosperity 2023 Pursuit of Sustainable Growth in Energy and Environment Businesses

#### Through Putting our Corporate Philosophy and Management Policies into Practice, We are Contributing to the Creation of Sustainable Societies

Global society is currently engaged in a movement to achieve economic growth while simultaneously addressing social and environmental issues. This movement can be seen in the United Nations Sustainable Development Goals, a set of international goals for realizing a sustainable society, and the Paris Agreement, an international framework for combating global warming. Companies, too, are expected to take part in proactive efforts toward these goals as responsible members of society. Acting in accordance with Fuji Electric's corporate philosophy of "contribute to prosperity," "encourage creativity," and "seek harmony with the environment," the Company bases its management policies on contributing to the creation of sustainable societies through its energy and environment businesses. This direction indicated by Fuji Electric's corporate philosophy is compatible with enhancing the three areas of society, economy, and environment.

Going forward, we will continue to sincerely put our corporate philosophy and management policies into practice while further refining our energy and environment technology. By working together with our customers and business partners to solve social and environmental issues and create customer value, we will contribute to the creation of responsible and sustainable societies.



#### Record-Breaking Operating Income Posted for Second Consecutive Year and All Targets of FY2018 Medium-Term Management Plan Achieved

In fiscal 2018, the final year of the FY2018 Medium-Term Management Plan, Renovation 2018, which adopted "further renovation of Fuji Electric" as its basic policy, we implemented growth strategies and pursued improved profitability.

In fiscal 2018, net sales increased to ¥914.9 billion and operating income rose to ¥60.0 billion, as we recorded year-on-year increases in revenue and earnings, and record-high income for the second consecutive year. These results were driven by robust demand for investment in equipment in Japan, despite a trend toward investment restraint in the Chinese market in the second half of the fiscal year due to the trade friction between the United States and China. Furthermore, the successful achievement of all the management targets of the FY2018 Medium-Term Management Plan, including the financial targets, instilled great confidence into employees.

(Billions of yen)	FY2017 Results	FY2018 Medium-Term Management Plan (Target)	FY2018 Results
Net Sales	893.5	900.0	914.9
Operating Income	56.0	54.0	60.0
Operating Margin	6.3%	6.0%	6.6%
Net Income Attributable to Owners of Parent	37.8	34.0	40.3

#### Financial Indicators

Net Debt-to-Equity Ratio*	0.4 times	0.7 times	0.4 times
Equity Ratio	36%	32%	37%
ROA	4%	4%	4%
ROE	12%	12%	12%

\*Net interest-bearing debt / Shareholders' equity

## Review of Fiscal 2010 to Fiscal 2018

### Business Restructuring, Growth Strategies, and Further Renovation

Looking back on the 10 years since fiscal 2009, we have worked hard to boost profitability through a number of initiatives. These initiatives include realizing innovation of our business structure in the immediate aftermath of the global financial crisis, abolishing the holding company system, and restructuring our organization with the aim of integrating business management. At the same time, we reduced the number of executive officers from 53 to 18 to create an executive system that would facilitate the speed of decision making. From 2013, when we had made good progress toward strengthening our foundations, we looked to the future by promoting growth strategies, such as conducting proactive investments including M&A, as we continued to achieve increases in revenue and earnings. Moreover, as a result of improved business performance, we were able to increase dividend payments to shareholders almost every year and properly reward employees with bonuses.

Since assuming the office of president of Fuji Electric, I have consistently emphasized the expansion of our energy and environment businesses, globalization, and teamwork, in accordance with our management policies. In addition, I have also emphasized augmenting our manufacturing capabilities—our starting point as a manufacturer and the source of our earnings. With “benchmarks are the way of the old Fuji Electric” as our motto, we have worked to create a culture that is conducive to thinking about how we can achieve our goals, without being tied to conventional methods or thinking.

We clarified energy and the environment as Fuji Electric's business domains by integrating and reorganizing the three business segments of Industrial Infrastructure, Social Infrastructure, and Power Electronics, to establish the power electronics systems business in 2017. We made this change in order to pursue synergies in related businesses, with a focus on power electronics technologies, an area of strength for the Company.

With the aim of strengthening cost-competitiveness and minimizing geopolitical risks, we expanded overseas production

bases and promoted global procurement in order to expand our overseas operations. We thoroughly pursued local production and local consumption. We had previously over-emphasized the importance of our production bases in China but we established a system in which products to be sold in China are made in China, and products to be sold in Asia are made in Asia, thereby promoting the expansion of overseas production bases and global procurement. In addition, we proactively conducted M&A activities and collaboration with the aim of capturing human resources and sales channels, establishing the companies as development and engineering bases centered on China and other parts of Asia.

To enable Fuji Electric to unite and maximize its strengths, I believe that it will be vital to transcend organizational and national boundaries while enhancing the capabilities of individuals. An example of that is the Companywide Pro-7 Activities that we started in 2012 with a view to improving profitability. These activities, in which employees review the way they work from the ground up by forming teams and setting tasks and targets, are designed to improve work quality and efficiency. The greatest achievement of these activities is their permeation to all corners of frontline operations, changing the awareness of employees. The accumulation of these steady efforts has raised the level of profit improvements.

At the same time, we have made great efforts to augment our manufacturing capabilities in order to strengthen our factories, which is the source of our profits. In addition to training engineers and technicians, we have promoted the visualization of costs for each product and business. By pursuing in-house manufacturing, automation, and standardization with the goal of achieving cost reductions and enhancing productivity, we have successfully revamped our production technology capabilities. We have also recently embarked upon the automation of quality control documentation, thereby heightening their reliability.

Moreover, as a way to strengthen technological development capabilities, we are bolstering cooperation among developers while increasing speed and efficiency by constructing development wings at each of the three power electronics systems and electronic devices global mother factories in Japan, in order to gather together researchers and engineers.

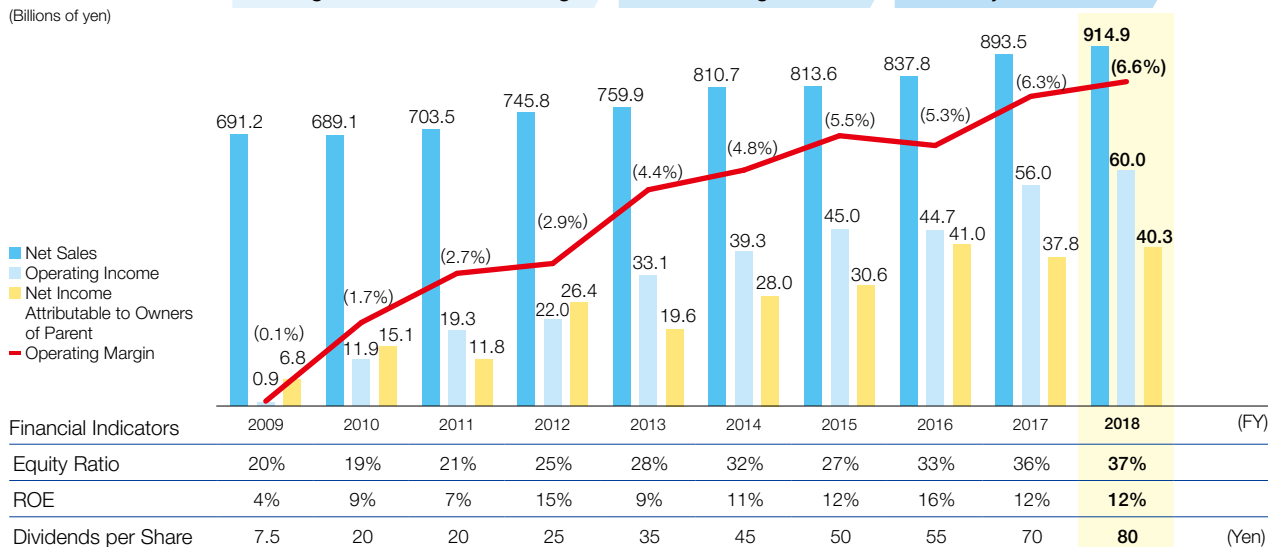
### Business Performance Trends

(Billions of yen)

#### Strengthen a Profitable Structure through Business Restructuring

#### Implement Growth Strategies

#### Further Renovation of Fuji Electric



Note: Dividends were calculated making reference to the share consolidation of October 1, 2018.



## FY2023 Medium-Term Management Plan “Reiwa Prosperity 2023”

### Establishing Foundations for Sustainable Growth

In fiscal 2019, the start of the Reiwa era in Japan, we launched a new five-year Medium-Term Management Plan. The plan has fiscal 2023 as its final year—the 100th anniversary of Fuji Electric’s founding. “Reiwa Prosperity 2023” articulates our aim to prosper with society by 2023 through our energy and environment businesses.

The five years toward fiscal 2023 are a time for strengthening our foundations as a company that realizes ongoing growth. With a focus on implementing growth strategies and further improving profitability, we will also enhance management quality from a long-term perspective by addressing the management base that supports our operations on a global scale, regarding such matters as the environment, human resources, and corporate governance.

### Target Net Sales of ¥1 Trillion and Operating Margin of 8.0% or more for Fiscal 2023

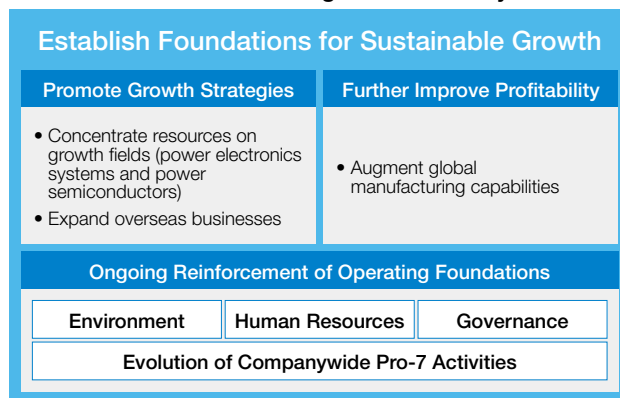
Among the management targets for fiscal 2023, net sales of ¥1 trillion and an operating margin of 8.0% or more are the ones on which we place the most importance. In regard to financial indicators, we have adopted targets that emphasize balancing growth potential, profitability, and efficiency with financial soundness. Those targets have a net debt-to-equity ratio of 0.1 times, an equity ratio of 50.0%, and ROE of 11.0%. In terms of capital efficiency, we will achieve qualitative improvement of ROE by enhancing profits and reducing working capital. We have positioned the next five years as a stage for conducting proactive investments in pursuit of business expansion. Nevertheless, we aim to achieve a dividend payout ratio of 30% as soon as possible for shareholder returns while maintaining sufficient funds for growth investments such as capital investment, research and development, and human resource investment. Furthermore, we recognize that it is debatable whether an equity ratio of 50% is an appropriate level and we will continue to consider that and other points, including utilization of growth investments and our policy on cross-shareholdings, as we pursue further enhancement of capital efficiency.

### FY2023 Management Targets

	FY2018 Results	FY2023 Medium-Term Management Plan (Target)	FY2018–FY2023 Change
(Billions of yen)			
Net Sales	914.9	1,000.0	+85.1
Operating Income	60.0	80.0	+20.0
Operating Margin	6.6%	8.0%	+1.4pt
Net Income Attributable to Owners of Parent	40.3	55.0	+14.7
<b>Financial Indicators</b>			
Net Debt-to-Equity Ratio	0.4 times	0.1 times	–0.3
Equity Ratio	37%	50%	+13pt
ROA	4%	5%	+1pt
ROE	12%	11%	–1pt
Payout Ratio	28%	30%	+2pt

Note: Assumed exchange rates for fiscal 2023: ¥105 to the U.S. dollar; ¥123 to the Euro; ¥16 to the RMB

### FY2023 Medium-Term Management Plan Key Issues



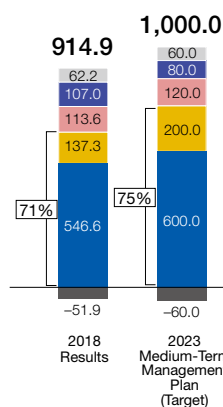
### Growth Centered on Power Electronics Systems and Electronic Devices and Emphasis on Profits in Power Generation and Food and Beverage Distribution

As the need for improved energy efficiency and energy conservation in the industrial world increases toward the pursuit of the realization of a low-carbon society, we are seeing an expansion in business opportunities that allow Fuji Electric to leverage its strengths in power electronics technology and power semiconductor technology. Responding proactively to this favorable market situation, we will target expanding sales from Power Electronics Systems and Electronic Devices so that they account for about 80% of total consolidated sales and profits.

A major strength of Fuji Electric’s power electronics systems business is that it is a one-stop shop for addressing various issues faced by customers. As the leading manufacturer of power semiconductors, we have an advantage over others. We develop competitive component products equipped with power semiconductors that address a variety of issues, from energy stabilization and optimization to factory energy conservation and automation through systems with added engineering, service, and IoT technologies. With the strength of our power electronics systems business, we will leverage the expertise we have cultivated in Japan to expand operations centered on energy management, power supply and facility systems, and automation systems.

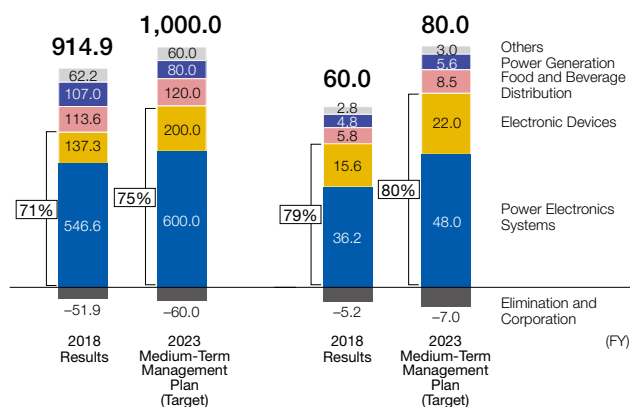
#### Net Sales

(Billions of yen)



#### Operating Income

(Billions of yen)



Note: Ratios for Power Electronics Systems and Electronic Devices are calculated based on amounts before elimination and adjustment of inter-segment transactions



Recognizing the proliferation of electrified vehicles (xEVs) and the spread of renewable energy as growth opportunities, we will grow the Electronic Devices segment through our power semiconductors, for which Fuji Electric possesses world-leading technologies.

Meanwhile, we will seek profitability for the Power Generation and Food and Beverage Distribution segments by promoting business portfolio reform through business selection and concentration, rather than pursuing sales expansion. In Power Generation, where the global movement to phase out coal-fired thermal power is picking up speed, we will shift to the field of renewable energies and distributed power supply such as geothermal power generation, in which we have a leading market share around the world, while bolstering after-sales businesses. In Food and Beverage Distribution, we will expand both our vending machine business in China and Southeast Asia and our systems business that facilitates the efficiency of vending machine operations and labor and power-saving at stores.

### Concentrating Management Resources on Power Electronics Systems and Power Semiconductors

In order to reinforce strong businesses and expand operations, we will concentrate management resources on power electronics systems and power semiconductors, allocating 90% of plant and equipment investment and 80% of research and development (R&D) expenditures to the two businesses.

Although the amount of plant and equipment investment in power semiconductors of ¥120.0 billion accounts for about half of total plant and equipment investment, in regard to the automotive field in particular, we will steadily increase investment to strengthen production capacity while carefully assessing market trends and controlling risk. As for R&D, we will focus on developing new products aimed at increasing sales in the automotive field as well as continuing to focus efforts on the development of next-generation SiC power semiconductor modules in pursuit of future sales expansion.

We have made progress in power electronics systems with respect to the development of global products as well as the standardization and bundling of systems. In addition, our partnership strategy in China and the rest of Asia has become clear as a result of collaborations and M&A activities, and we will expand the systems business overseas on a full-scale basis over the next five years. At Fuji Electric Manufacturing (Thailand) Co., Ltd., which will serve as a core production site in Asia, we have established switchgear and controlgear

system factories. By coordinating manufacturing, engineering, and services with sales bases in Asian countries, we will achieve business expansion. Moreover, as new products and new businesses result from Fuji Electric's proprietary technology, we will focus efforts on expanding sales of SiC-equipped power electronics products for railroad applications and systems for ships.

### Expanding Sales Outside Japan and Augmenting Manufacturing Capabilities Globally

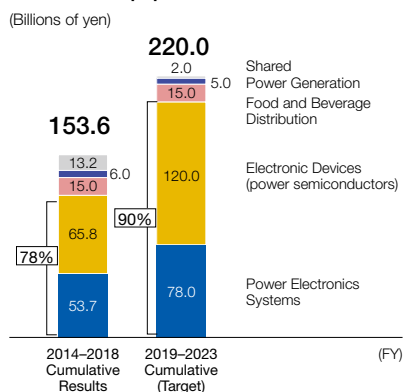
With a focus on Southeast Asia, India, and China as key regions with high growth potential due to energy conservation and automation investments in industrial and social infrastructure and the proliferation of electric vehicles (EVs), we will increase the ratio of sales outside Japan to total net sales from 25% to 35%.

We will increase sales in Asia, the region with the biggest sales volume, centered on power electronics systems. Meanwhile, power semiconductors for EVs will be the driver of growth in China and Europe.

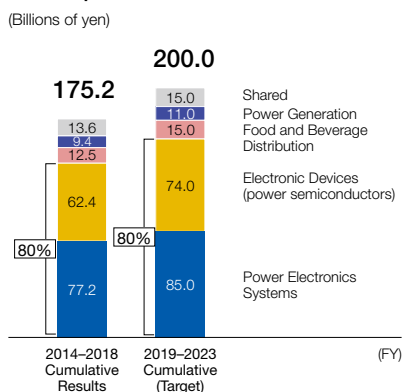
In parallel with expanding operations overseas, we will redouble efforts to promote local production and local consumption while augmenting global manufacturing capabilities in order to increase profits. By transferring the production technology capabilities cultivated at regional mother factories in Thailand and China to related factories overseas, we will promote their autonomy. Human resource development will be vital to these initiatives. At Fuji Electric Manufacturing (Thailand) Co., Ltd., which we have positioned as an Asian regional mother factory, local staff played a central role in providing guidance to factories in India and France in starting a low-voltage inverter production line. In such ways, the coordination among overseas bases is growing. We will step up the cultivation of local leaders to further accelerate the autonomy of overseas production bases.

Moreover, in addition to the in-house manufacturing, automation, and standardization that we have pursued to date, we will also promote manufacturing innovations that leverage IoT technologies in order to augment manufacturing capabilities globally. We will build a platform with information on designs, purchasing, production, and testing from every overseas production base to facilitate the advancement of coordination through the visualization and sharing of information, and link that to shortening lead times, reducing the amount of work in progress, and improving cash flow.

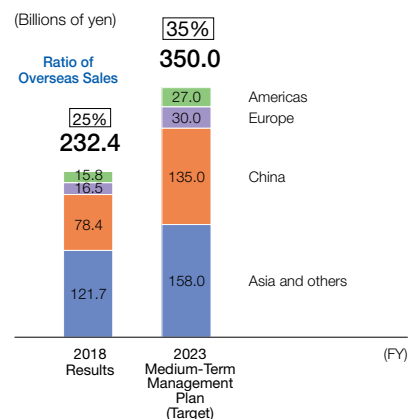
#### Plant and Equipment Investment



#### R&D Expenditures



#### Overseas Sales



Note: Figures for R&D expenditures are allocated by research theme and therefore differ from those in the consolidated financial report

## Ongoing Reinforcement of Operating Foundations

Fuji Electric is reinforcing its operating foundations toward the enhancement of corporate value over the long term, including initiatives for environmental preservation, human resource development, and corporate governance. Moreover, the Company revised its Code of Conduct, which sets forth guidelines for the conduct of employees, to incorporate the concepts of the United Nations Global Compact and Sustainable Development Goals. I believe that awareness among employees, including Group employees overseas, is an important issue.

### Strengthening Human Resources

Amid a falling birthrate and an aging society in Japan, Fuji Electric is faced with management issues such as the aging of its labor force, globalization, and changes in its business structure. Against this backdrop, it is becoming increasingly important to strengthen human resources, which are the source of a company's competitiveness. In this environment, the handing down of skills from generation to generation has been a perennial issue. About 100 employees aged 65 or over are currently engaged in the instruction and development of young employees and it is necessary to treat highly skilled employees appropriately. In addition, we will develop a system to ensure that employees aged 60 or over with excellent track records, not just engineers, receive treatment that is matched to the value of their work.

In regard to female empowerment, we will continue to proactively hire female employees while pursuing planned career development and cultivation in order to increase the number of female employees in supervisory positions.

Today, the issue warranting the most attention is the line management of middle managers, who are the core of every team. This issue was brought to the fore in the employee awareness surveys that we continuously conduct. We will step up our efforts to an even greater extent than before to cultivate middle managers while improving their amount of experience through planned rotation, thereby developing the human resources who will lead the Fuji Electric of tomorrow.

### Enhancing the Transparency of Management Through Reinforcement of Global Compliance

Fuji Electric established a voluntary Nomination and Remuneration Committee composed of a majority of Outside Directors and with an Outside Director as its chairman. The committee began its activities in July 2019. Although we have long been appointing Outside Officers to strengthen the management supervisory function and auditing function, we will further enhance management transparency through the Nomination and Remuneration Committee going forward. Moreover, as a result of the expansion of overseas businesses, we will conduct thorough compliance reinforcement at overseas subsidiaries while, in terms of risk management, we will strengthen business continuity capabilities and information security countermeasures.

### Contributing to the Environment through Our Business Activities

In June 2019, we created the Environmental Vision 2050, which aims to make contributions to the supply chain for the realization of a low-carbon society, recycling-oriented society, and society in harmony with nature. As specific targets for achieving a low-carbon society, we have adopted quantitative targets for fiscal 2030, such as reducing greenhouse gas emissions during production by 31% and reducing CO<sub>2</sub> emissions by 50 million tons annually through our products.

Fuji Electric's strength is that it is able to contribute to society through its energy and environment businesses. Going forward, we will contribute to efforts to combat global warming together with our customers and business partners.

### Fuji Electric Environmental Vision 2050

We aim to achieve a "Low-Carbon Society," "Recycling-Oriented Society," and "Society in Harmony with Nature" by expanding use of Fuji Electric's innovative clean energy technology and energy-saving products.

#### Realize a Low-Carbon Society

Target a reduction of 80% or more in greenhouse gas emissions across the supply chain

#### Realize a Recycling-Oriented Society

Promote green supply chains and 3R\* activities to reduce environmental impact to zero

#### Realize a Society in Harmony with Nature

Aim for zero influence on the ecosystem by corporate activities contributing to biodiversity

\*Reduce, Reuse, Recycle



Realizing “Enthusiastic, Ambitious and Sensitive” Employees

Since I believe that it is important to contribute to society through work and take ownership of one’s own growth, I directly convey the slogan adopted in our corporate philosophy — “to be enthusiastic, ambitious and sensitive” — to employees at production and sales bases in Japan and overseas. In this slogan, “enthusiasm” means the desire to contribute to society by creating new technologies and products. “Ambition” means setting lofty goals and working to achieve them with a strong spirit, no matter what challenges may be faced. “Sensitive” means valuing customers, allies, and the families that support us. This sensitivity truly represents Fuji Electric’s corporate DNA. By having all employees sharing the values of our management slogan engage in Pro-7 Activities, I firmly believe that the Company’s management base will work as a team and grow even stronger.

Fuji Electric will continue to put its management slogan into practice, utilize the comprehensive strength of teams of diverse, individual employees, and contribute to the creation of sustainable societies through our energy and environment businesses. In closing, we would like to ask for the continued support of all our stakeholders.

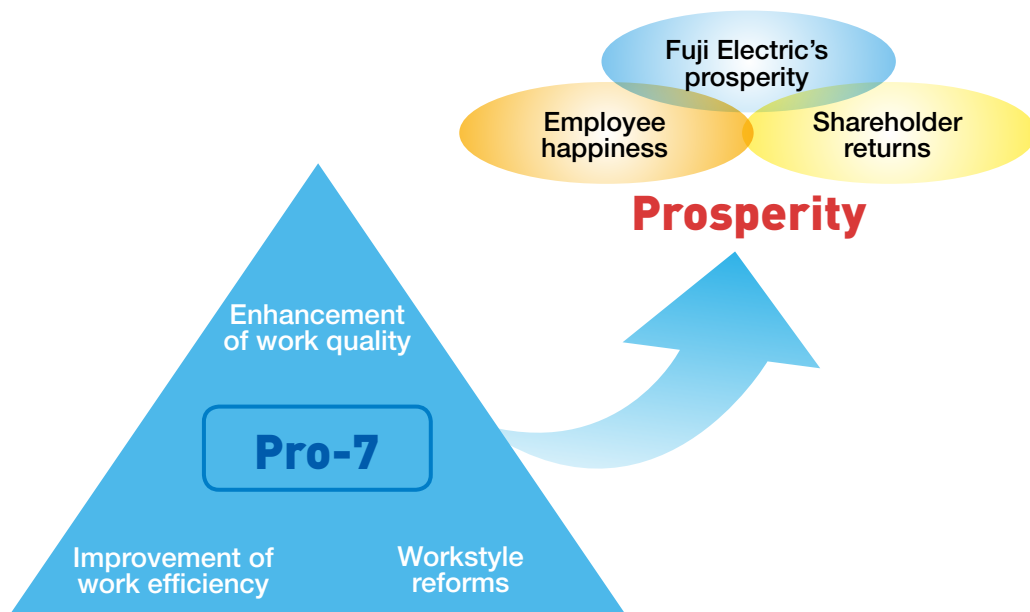
July 2019

Michihiro Kitazawa  
President and Chairman of the Board of Directors

Develop Pro-7 Activities and Pursue Prosperity

When we launched the Companywide Pro-7 Activities, our goal was to contribute directly to profits by lowering costs and improving profit margins. However, the goal is now work itself. We practice self-monitoring and review every aspect of our work from the ground up and promote the Activities through the three pillars of enhancing work efficiency and quality, and workstyle reforms designed to improve productivity. Ultimately, what we are targeting through Pro-7 Activities is prosperity as a company, returns to shareholders, and the happiness of employees. We will pursue prosperity for the customers who support and trust us, the shareholders who back us, and our employees and their families.

Establishment of Foundation for Sustainable Growth through Companywide Pro-7 Activities



# Review of Operations

## Fiscal 2018 Performance

Seeking to complete the FY2018 Medium-Term Management Plan, Fuji Electric strengthened the power electronics systems business and aggressively invested in the expansion of its power semiconductor operations while also pursuing increased profitability by further enhancing manufacturing capabilities and re-energizing the Companywide Pro-7 Activities that are aimed at improving work quality.

Consolidated net sales in fiscal 2018 increased ¥21.5 billion year on year, to ¥914.9 billion, due to higher demand centered on the Power Electronics Systems—Energy Solutions segment, the Electronic Devices segment, and the Power and New Energy segment. Despite the impacts of slowdown in demand seen in the second half of the fiscal year as well as increased costs associated with a large-scale project in the Power and New Energy segment, operating income rose ¥4.0 billion year on year, to ¥60.0 billion.

As a result, we achieved the targets of the FY2018 Medium-Term Management Plan for net sales, operating income, and net income attributable to owners of parent as well as for all relevant financial indicators.

(Billions of yen)	FY2017 Results	FY2018 Results	Change	FY2018 Medium-Term Management Plan (Target)
Net Sales	893.5	914.9	+21.5	900.0
Operating Income	56.0	60.0	+4.0	54.0
Operating Margin	6.3%	6.6%	+0.3pt	6.0%
Net Income Attributable to Owners of Parent	37.8	40.3	+2.5	34.0

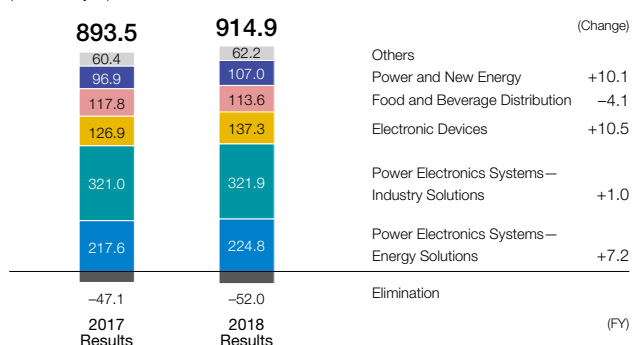
### Financial Indicators

Net Debt-to-Equity Ratio*	0.4 times	0.4 times	—	0.7 times
Equity Ratio	36%	37%	+1pt	32%
ROA	4%	4%	—	4%
ROE	12%	12%	—	12%

\*Net interest-bearing debt / Shareholders' equity

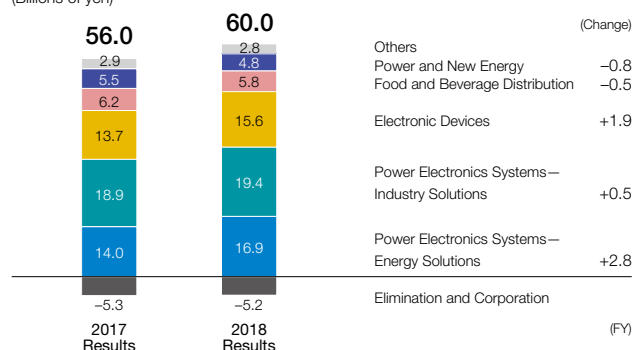
### Net Sales

(Billions of yen)



### Operating Income

(Billions of yen)



### Major Initiatives by Segment

Segment	Major Initiatives
Power Electronics Systems—Energy Solutions	<ul style="list-style-type: none"> <li>Expanded comprehensive electrical equipment supply operations (semiconductor factories, data centers, oil depots, etc.)</li> <li>Aggressively capitalized on substation replacement demand</li> <li>Commercialized new storage battery systems using reused electric vehicle storage batteries</li> </ul>
Power Electronics Systems—Industry Solutions	<ul style="list-style-type: none"> <li>Developed ship exhaust gas cleaning systems and delivered first unit</li> <li>Established joint venture company with Dalian Bingshan Group Co., Ltd., to strengthen system operations in China</li> <li>Commenced production of low-voltage inverters in India and France</li> <li>Developed and launched OnePackEdge package bundling everything from production floor data collection to analysis</li> <li>Developed inverters for railcars</li> </ul>
Electronic Devices	<ul style="list-style-type: none"> <li>Invested in power semiconductor production capacity increases</li> <li>Advanced development of 4th-generation direct liquid-cooling automotive modules</li> </ul>
Food and Beverage Distribution	<ul style="list-style-type: none"> <li>Expanded lineup of vending machines (IoT-powered, beverage, food and other items) for the Chinese market</li> <li>Commenced production of vending machines for the Southeast Asia market (P.T. Fuji Metec Semarang)</li> <li>Developed and deployed store fixtures and equipment for addressing labor shortages</li> </ul>
Power and New Energy	<ul style="list-style-type: none"> <li>Commenced on-site construction in Kenya for first geothermal power generation plant order received in Africa</li> <li>Received several scrap and build* orders pertaining to hydro power generation systems</li> </ul>

\* Projects in which aged, inefficient facilities are decommissioned and replaced with new facilities to improve efficiency

## Fiscal 2019 Management Plan

In fiscal 2019, the first year of the FY2023 Medium-Term Management Plan, Fuji Electric will strengthen the power electronics systems business, aggressively invest in and expand its power semiconductor operations, and pursue improvements in operational efficiency and work quality through Pro-7 Activities.

We will target net sales of ¥930.0 billion in fiscal 2019, a year-on-year increase of ¥15.1 billion, while working toward a record-breaking ¥62.0 billion in operating income, an increase of ¥2.0 billion. Companywide performance is expected to be driven by higher sales volumes of inverters, other components, and ship exhaust gas cleaning systems in the Power Electronics Systems Industry segment and of automotive and other power semiconductors in the Electronic Devices segment. During fiscal 2019, capital expenditures and R&D activities will be primarily aimed at the Power Electronics Systems segment and the Electronic Devices segment (namely power semiconductors), both areas where we anticipate growth.

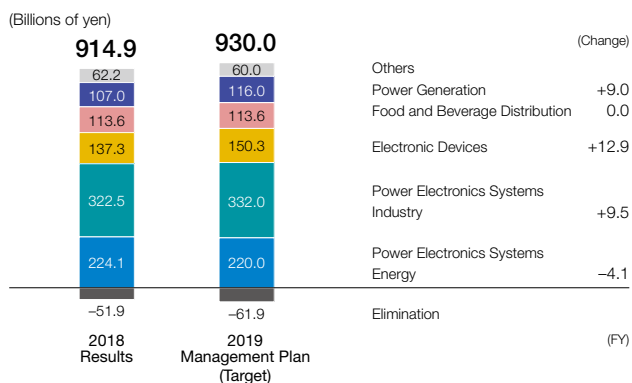
(Billions of yen)	FY2018 Results	FY2019 Management Plan (Target)	Change
Net Sales	914.9	930.0	+15.1
Operating Income	60.0	62.0	+2.0
Operating Margin	6.6%	6.7%	+0.1pt
Net Income Attributable to Owners of Parent	40.3	40.4	+0.1

### Financial Indicators

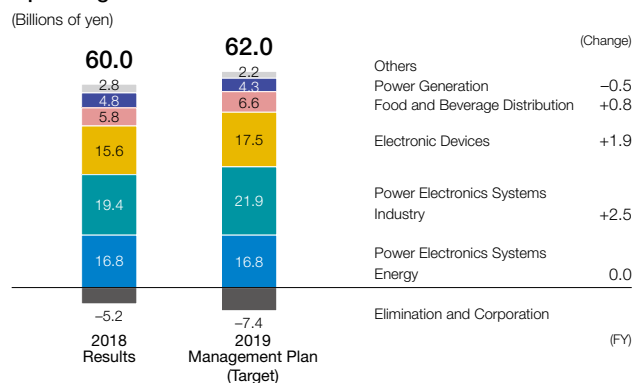
Net Debt-to-Equity Ratio	0.4 times	0.4 times	—
Equity Ratio	37%	40%	+3pt
ROA	4%	4%	—
ROE	12%	11%	-1pt

Note: Assumed exchange rates for fiscal 2019: ¥105 to the U.S. dollar; ¥123 to the Euro; ¥16 to the RMB

### Net Sales

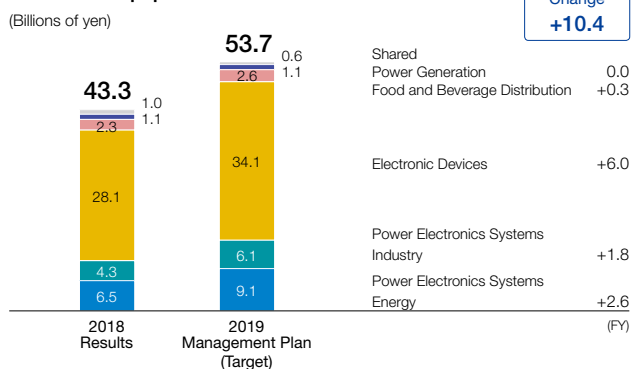


### Operating Income

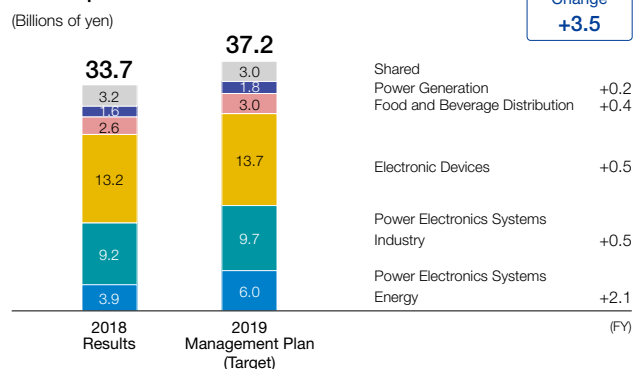


Note: The Power Electronics Systems—Energy Solutions and Power Electronics Systems—Industry Solutions segments have been reorganized to form the Power Electronics Systems Energy and Power Electronics Systems Industry segments from fiscal 2019. In addition, the Power and New Energy segment has been renamed the Power Generation segment. Figures for fiscal 2018 have been restated to reflect these changes.

### Plant and Equipment Investment



### R&D Expenditures



Note: Figures for R&D expenditures above have been divided by segment based on theme and may therefore differ from the figures contained in the consolidated financial report for the fiscal year ended March 31, 2019.

Segment	Major Plant and Equipment Investment	Major R&D Expenditures
Power Electronics Systems Energy	Construction of switchgear and controlgear system factories (Thailand)	Global products (transformers, switchgears, etc.)
Power Electronics Systems Industry	Ship exhaust gas cleaning systems, etc.	SiC-equipped power electronics devices, factory automation systems, servo systems, etc.
Electronic Devices	Increased power semiconductor production capacity	IGBTs for electric vehicles, 7th-generation IGBTs (large-capacity series), etc.
Food and Beverage Distribution	—	Vending machines for Chinese and Asian markets, energy-saving and labor-saving store distribution products
Power Generation	—	Service technologies and products



# Power Electronics Systems Energy / Industry

## Priority Measures for Fiscal 2019

### Creation of Competitive Components

Fuji Electric will accelerate the development of transformers, switchgears and controlgears, and others to create competitive global products.

Another focus of development is differentiated products equipped with next-generation SiC power semiconductors that contribute to the realization of more efficient and compact equipment. In this area, we are moving ahead with the development of traction converters for railcars.

### Expansion of Overseas Businesses by Leveraging Systems

Fuji Electric is stepping up development of high-value-added systems that combine standardized product and system bundles with engineering services and IoT technologies.

Acting in accordance with our basic principle of local production and consumption, we will ramp up local design in China and other parts of Asia, move ahead with the construction of switchgear and controlgear system factories at Fuji Electric Manufacturing (Thailand) Co., Ltd., and establish engineering centers. At the same time, we will look to expand overseas operations through partner strategies with affiliates and with companies acquired through M&A activities.

### China





We will pursue collaboration with Shanghai Electric Group Co., Ltd., to promote sales of control systems that support stable operation at material factories. At the same time, we will work together with Dalian Bingshan Group Co., Ltd., to expand sales of energy management systems for contributing to energy saving and optimization at beverage factories.

### Southeast Asia

Transmission and distribution systems and comprehensive electrical equipment supply operations will be fortified through launches of new products while the sales channels of Fuji CAC Joint Stock Company are used to expand sales of control systems for cement factories.

### India

In addition to leveraging the sales channels of Fuji Gemco Private Limited to grow sales of steel plant control systems, we will also seek to expand our power supply operations through the newly acquired Consul Neowatt Power Solutions Pvt Ltd. This company's technologies, manufacturing capabilities, and sales channels will be used to bolster local production and consumption systems in India in order to grow our operations in this market.

Value Created	Stable Supply and Optimization of Energy			
Customers	Social Infrastructure Field (Power / Telecommunications)			
				
Segment	Power Electronics Systems Energy			
Principal Systems	Substation Equipment / Monitoring and Control Systems		Energy Management Systems	
				
	Electricity Storage Control Systems		Comprehensive Data Center Systems	
	Power conditioning systems 	Power stabilizers 	Modular data centers 	
Major Components	Transmission and Distribution / Power Supplies			
	Transformers 		Uninterruptible power systems (UPSs) 	

The Power Electronics Systems Energy segment, which contributes to the stable supply and optimization of energy, and the Power Electronics Systems Energy segment, which realizes automation and energy saving at factories, operate their businesses under shared policies as Fuji Electric's power electronics systems business. Based on these shared policies, we seek to create competitive components through synergies with our core power semiconductor and power electronics technologies; reinforce systems operations by combining engineering services, optimal control technologies, and IoT technologies; and expand overseas operations.

## Automation and Energy Saving

### Industrial Field (Assembly Processing / Materials)

### Transportation Field



## Power Electronics Systems Industry

### Drive Control / Monitoring Control Systems for Material Plants

### Systems for Railcars

### Electric Facility Construction

#### Switchgears and Controlgears



### Operational Information Collection Systems for Assembly and Processing Equipment

### Ship Exhaust Gas Cleaning Systems

### Information Network Systems



### Control Equipment

#### Controllers

#### Programmable displays



### ED&C Components

### Drive Equipment

### Measuring Instruments

#### Magnetic switches

#### Molded-case circuit breakers

#### Inverters

#### Motors

#### Servo systems

#### Ultrasonic flowmeters

#### Gas analyzers





# Power Electronics Systems Energy

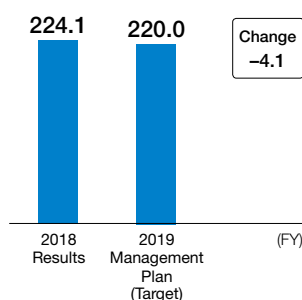
Expand overseas businesses by leveraging proposal bundles for electrical equipment

Executive Officer  
Corporate General Manager,  
Power Electronics Systems Energy Business Group

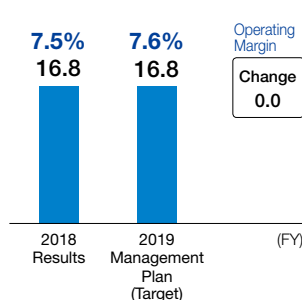
Masahiro Morimoto



**Net Sales**  
(Billions of yen)



**Operating Income**  
(Billions of yen)



## Priority Measures for Fiscal 2019

We will expand our transmission and distribution systems business and comprehensive electrical equipment business overseas through Asian manufacturing and engineering and capabilities in proposal bundles cultivated in Japan.

### Strengthen systems for Asian manufacturing and engineering

We will construct switchgear and controlgear system factories at Fuji Electric Manufacturing (Thailand) Co., Ltd. (FMT), and build a new engineering center in order to consolidate engineering staff, who had previously been dispersed. Through coordination between the engineering center and the technological sales force at sales companies in Thailand, Indonesia, Vietnam, the Philippines, and Singapore, we will expand sales proposals that are custom-tailored to the needs of customers.

### Expand the transmission and distribution business by introducing new global products

We will introduce new, price-competitive transformers and switchgear products. In Southeast Asia we will expand our business targeting the electricity and materials fields that combines substation equipment with switchgear and controlgear. Meanwhile, in the Middle East, we will concentrate our efforts on capturing demand for renewals and services among existing substation equipment customers by bolstering sales proposals for equipment malfunction prevention, and lifespan diagnosis services via coordination with local service companies.

### Expand the comprehensive electrical equipment business for factories and facilities

Since fiscal 2018 we have strengthened our systems and are growing comprehensive electrical equipment orders for data centers and semiconductor factories centered on Japan. Going forward, we will continue to expand the comprehensive electrical equipment business in Japan and Southeast Asia where we anticipate robust capital expenditure in those industries. The key to strengthening competitiveness is short delivery times and low costs. In order to realize this, we will further promote the standardization of our core products, namely switchgear and controlgear. At the same time, we will begin local production in order to improve our lineup of products that conform to overseas standards.

### Expand sales of ED&C components business targeting the power distribution market

We will expand sales on the back of Tokyo 2020 Olympic and Paralympic Games-related investment by strengthening nomination activities in the power distribution market for buildings and general contractors.

## Awareness of Market Needs

We are seeing continuing renewal investments in the manufacturing industry in Japan due to aged equipment such as substation equipment acquired in the 1970s and 1980s, while a shortage of equipment management engineers among customers is stimulating requirements for equipment orders and efficiency of management. Moreover, with a view to improving energy saving throughout factories and reducing CO<sub>2</sub> emissions from the perspective of growing environmental awareness and restricting energy costs, demand is increasing not only for the introduction of products with a high level of power conversion efficiency, but also for the visualization and optimization of energy throughout factories leveraging energy management systems (EMS).

In the Southeast Asia and Middle East regions, which are experiencing remarkable economic growth, demand for substation equipment and switchgear and controlgear for factories and buildings to stabilize power supplies is increasing amid growing investment in industrial and social infrastructure and demand for electricity.

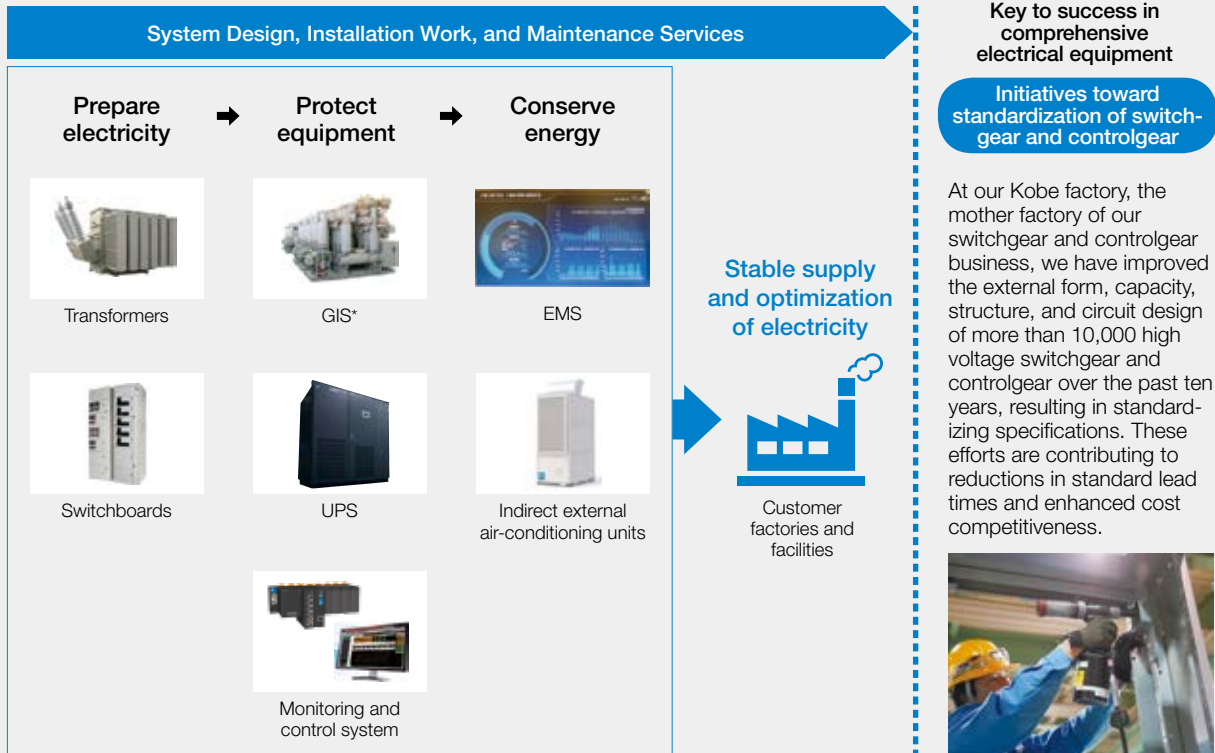
## Strengths of the Power Electronics Systems Energy Segment

The strength of the Power Electronics Systems Energy segment lies in its wide range of products and systems, from instruments that prepare electricity such as transformers and switchboards to instruments that protect equipment from lightning and instantaneous voltage drops, such as uninterruptible power systems and EMS. Moreover, in addition to the expertise on energy saving at Fuji Electric's factories, we possess an extensive delivery track record and engineering experience. At the same time, we are experts in the operation of various factories and facilities, and are able to provide maintenance services that suit user conditions, including the products and systems that underpin power stabilization and optimization in line with customer specifications. In these ways, the ability to offer comprehensive proposal bundles, from a diverse array of products and systems up to and including maintenance services, is this segment's strength.

## Contributing to the stable supply and optimization of electricity through the comprehensive electrical equipment business for factories and facilities

Fuji Electric contributes to the stable supply and optimization of electricity by performing everything up to and including design, installation work, and maintenance services for electrical equipment at factories and facilities.

### Comprehensive Factory and Facility Electrical Equipment Business Model



\*Gas-insulated switchgears

#### Case Study 1 Data Center of a Foreign Company (Japan)



#### Realizing early facility construction and energy saving through a wealth of expertise and products

Amid progress in the shift to cloud-based information systems and in anticipation of the expansion of the information and communication technology (ICT) market, foreign data center businesses are increasingly establishing a presence in Japan. Although foreign customers expect shortened construction periods, a shortage of their own engineers at their Japanese bases and lack of progress in procuring materials became an issue.

Fuji Electric shortened the construction period

by comprehensively undertaking everything from design of the entire facility up to its construction, combining power distribution equipment, UPSs, emergency power generation equipment, and other equipment to enable a stable power supply. Furthermore, on the operational front, we supported energy saving by providing monitoring and control systems that facilitate the visualization of energy, air-conditioning equipment that utilizes outside air, and UPSs with industry-leading levels of efficiency. We have gained recognition for our track record in Japan and we are now seeing an increase in inquiries overseas, principally in Southeast Asia.

#### Case Study 2 Oil Tank Factory (Japan)



#### Realizing energy saving and reliable operations through factory diagnosis and maintenance services

A lack of engineers to implement energy saving throughout the factory was an issue for the customer when renewing their production facilities. We implemented a facility diagnosis by checking the deterioration of all electrical equipment, such as substation equipment, including equipment manufactured by other

companies, high voltage motors, inverters inside switchgears and controlgears, and circuit breakers while clarifying recommendations on the timing of the renewal of such equipment. We were awarded a contract that entails everything from replacing existing products with Fuji Electric ones to 24 hours a day, 365 days a year maintenance services, and have thereby contributed to higher than ever energy-saving effects and operational reliability.

# Power Electronics Systems Industry

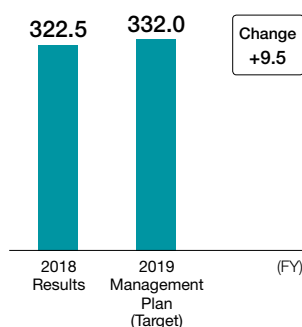
Expand the systems business through promotion of an overseas partnership strategy

Executive Officer  
Corporate General Manager,  
Power Electronics Systems Industry Business Group

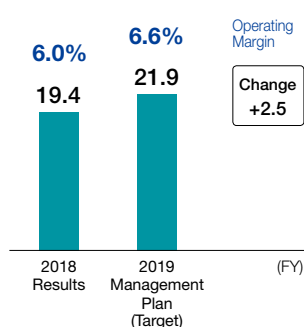
Hiroshi Tetsutani



**Net Sales**  
(Billions of yen)



**Operating Income**  
(Billions of yen)



systems, monitoring control systems, and other systems have an extensive delivery track record, enabling us to have a deep understanding of the production processes of customer plants. By combining these differentiated products with production floor expertise we are able to establish ideal plants and systems that address the issues of customers.

## Priority Measures for Fiscal 2019

We will expand the systems business in China and elsewhere in Asia through M&A activities and a partnership strategy with cooperative companies while setting the business targeting ships to a growth trajectory.

### Expansion of the systems business

In China, we will expand a system that facilitates production optimization and energy saving by leveraging Dalian Fuji Bingshan's air-conditioning heating and cooling technologies and equipment and its sales channels while combining inverters, measuring instruments, control equipment, and energy management systems to target beverage plants. Moreover, we will expand sales of drive control systems and monitoring control systems for the materials field by utilizing Shanghai Electric's sales channels. In Southeast Asia, we will leverage the engineering and sales channels of Fuji CAC of Vietnam to promote sales of control systems for cement plants, while in India, we will increase sales of control systems for steel plants centered on Fuji Gemco.

In Japan, we will continue to focus our efforts on capturing renewal demand for aged equipment in the materials field while promoting sales of semiconductor production equipment through the introduction of new servo system products. In addition, we will expand the systems business by providing data collection equipment and analysis and support services utilizing IoT for process assembly such as for automobiles.

### Expanding ship exhaust gas cleaning systems operations

Fuji Electric will expand its ship exhaust gas cleaning systems operations, business negotiations for which are increasing due to environmental regulations. We will bolster production capabilities and reinforce engineering systems while promoting productivity increases and cost reduction through the introduction of automation equipment. Additionally, we will respond to customer needs by developing large-sized products, with a goal of launching them in fiscal 2019.

## Awareness of Market Needs

In the industrial field in Japan, a shortage of labor is stimulating an increase in demand for automation and reducing labor requirements. In addition, initiatives are being stepped up toward heightening competitiveness through production reforms such as the visualization of equipment operating conditions as well as the prediction of equipment defects and analysis of the reasons for such defects. Moreover, renewal and energy-saving investments are continuing due to aged production equipment in the materials field.

In China, we anticipate investment in energy saving driven by environmental measures, and investment in automation and labor saving on the back of a shortage of labor. Meanwhile, we anticipate new and renewal investment in the materials field in Southeast Asia and India.

In the transportation field, such as ships and railroads, making equipment lighter and more compact while reducing environmental impacts is becoming a global issue.

## Strengths of the Power Electronics Systems Industry Segment

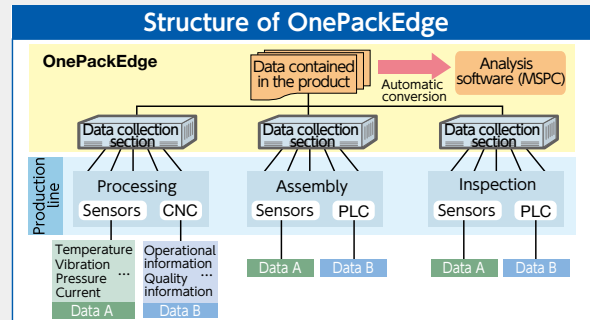
The Power Electronics Systems Industry segment provides a wide range of products—combining drive equipment, measuring instruments, control equipment, and the Internet of Things (IoT) that facilitate the automation of production equipment and labor saving—to a broad spectrum of customers, from those in the materials field to the assembly field. In particular, the segment's greatest strength is its ability to be the first to introduce to the market competitive power electronics products equipped with our own power semiconductors, the key devices for facilitating energy saving. The extensive lineup of our core product of inverters that are suitable for all industries and a variety of applications is the segment's forte while motion systems combining servo systems and controllers that boast industry-leading levels of control performance have a considerable delivery track record in machine tools, packaging machinery, and other areas. As for steel and cement plants, our drive control

## Facilitating productivity and quality enhancements through data collection and analysis of production equipment

Utilization of IoT in order to improve operations and enhance productivity on production floors has been increasing in recent years.

“OnePackEdge,” comprising data collection sections and analysis software, supports analysis of the factors of equipment abnormalities and defects by collecting together data including information on temperature, vibration and operation, and quality from production floor sensors and controllers.

We contribute to the early resolution of issues facing customers by providing data collection and analysis in one package.



Data collection section "OnePackEdge Controller"

### Case Study Automotive Manufacturer (Japan)



#### Significantly shortening data collection and factor identification time

As data management was conducted departmentally on the customer's production floors, data collection factor identification took a considerable amount of time when problems occurred.

By adopting "OnePackEdge," the amount of time required to collect and aggregate data on the motor rotation speed and current of processing equipment, screw-tightening pressure

on assembly equipment, breakdown history, and other issues at the customer's engine factory was drastically reduced. Furthermore, Fuji Electric's proprietary software makes it possible to predict and prevent abnormality occurrences. Therefore, we are contributing to the customer's operational efficiency improvement and quality enhancement.

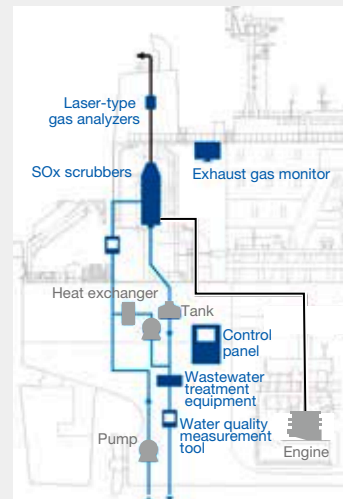
## Contributing to the resolution of the environmental problems of ships

The International Maritime Organization will strengthen regulations on sulfur oxide (SOx), a pollutant, in oceans throughout the world from 2020. The running costs of expensive low-sulfur fuels that conform to these regulations has become an issue.

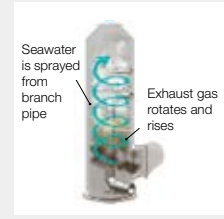
Fuji Electric offers ship exhaust gas cleaning systems that enable the continued use of current fuel. We provide SOx scrubbers that reduce sulfur oxide in exhaust gas by mixing sea water with exhaust gas to create a chemical reaction, and a combination of gas analyzers that measure the constituent concentration of SOx scrubbers and exhaust gas in real time as well as inverters and controllers for managing a feed pump that draws seawater in an optimal manner.

In these ways, Fuji Electric's ship exhaust gas cleaning systems are helping customers to adhere to air pollution regulations.

### System structure (Fuji Electric provides blue areas)



Exterior of scrubbers



Internal structure of scrubbers

### Case Study Shipbuilder (Japan)



#### Limiting required loading space through the world's smallest scrubbers

The customer was planning to equip medium-sized new ships with SOx scrubbers in order to conform to regulations but securing cargo space had become an issue.

Fuji Electric's scrubbers are the world's first scrubbers for ships to adopt cyclone technology in their internal structure. By securing the retention time of exhaust gas inside scrubbers, we have heightened the cleaning effect of scrubbers

on SOx, and realized the world's smallest scrubbers, at 50% of the volume of those of other companies, thereby contributing to a reduction of the loading space required for scrubbers on customer ships. We are creating new business as a result of our compact-sized scrubbers, which are suitable for both new and existing ships and make placement easy to consider, and providing optimal systems.



# Electronic Devices

Increase automotive sales by expanding our power semiconductor production capacity

Managing Executive Officer  
Corporate General Manager,  
Electronic Devices Business Group

Toru Housen



## Business Areas

- Semiconductors  
(Industrial and automotive fields)
- Magnetic disks

## Priority Measures for Fiscal 2019

### Launching mass production of new products for automotive applications

We are moving ahead with the development and mass production of Reverse-Conducting IGBT (RC-IGBT) chips and 4th-generation direct liquid cooling modules and we will provide these products to customers throughout the world. We will bolster specification incorporation activities that conduct proposals at the customers' product design stage and provide new products that meet customer needs. Through these efforts we will aim for further customer acquisition. By continuing to provide full support after specification incorporation, we will heighten the value of Fuji Electric products.

### Boost sales of 7th-generation IGBT for industrial applications

We will aim to boost sales by bolstering product lines that combine 7th-generation IGBT chips that reduce losses by approximately 30% more than before and 7th-generation IGBT modules, which boast high levels of heat dissipation and reliability. We will achieve differentiation by creating a lineup of high-capacity products not provided by other companies that can be easily applied to equipment.

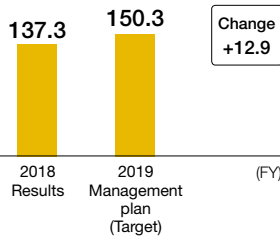
Targeting air conditioners, where there are calls for further energy saving, we will respond to customer needs by expanding our lineup of products for large, rather than compact models.

### Accelerate improvements to manufacturing capabilities

In order to grow sales, we are implementing appropriate equipment investments in a timely manner. In chip manufacturing (front-end processes), we are increasing 8-inch chip production equipment centered on our Yamanashi Factory, while for module assembly (back-end processes), we are augmenting capacities for production bases in Japan and overseas that are accelerating local production and consumption.

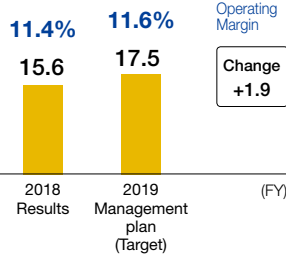
### Net Sales

(Billions of yen)



### Operating Income

(Billions of yen)



## Awareness of Market Needs

Demand in the industrial and social infrastructure fields is increasing for power semiconductors that fulfill the role of energy saving with high levels of conversion efficiency and power control. This demand is driven by increasing energy demands and environmental regulations such as global warming countermeasures.

In the industrial field, the adoption of renewable energies such as wind power and solar power is proceeding centered on China and Europe, while demand for inverter air-conditioning units is growing in China. Over the medium and long term, we forecast that investments in production floor automation with the aim of solving labor shortages and enhancing productivity will result in growing demand for machine tools and robots.

The driver of growth going forward will be the automotive field. We anticipate demand throughout the world for power semiconductors for motor control inverters which are necessary for electric vehicles (EVs).

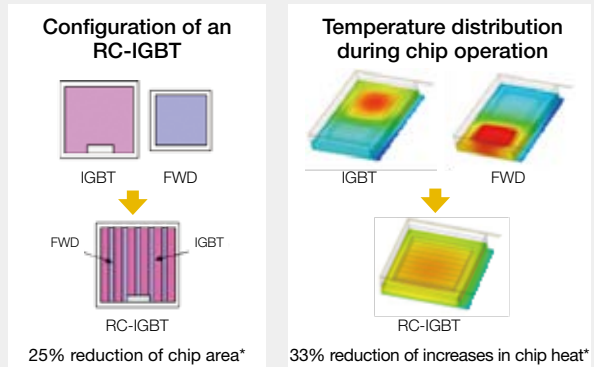
## Strengths of the Electronic Devices Segment

The strengths of the Electronic Devices segment are in technologies that enable the commercialization of IGBT modules that contribute to increasing the efficiency, miniaturization, and reliability of power electronics by combining cutting-edge IGBT chip technologies with package technologies possessing high heat dissipation and high levels of reliability. We are promptly meeting market needs and providing ideal products for a variety of applications through collaboration with our power electronics systems business.

## RC-IGBTs that realize miniaturization and high levels of reliability

One of Fuji Electric's strengths is its RC-IGBT. RC-IGBTs were adopted by the automotive industry and are currently being deployed horizontally in industrial fields.

By using an RC-IGBT that arranges two types of semiconductor with differing functions—an IGBT and a free-wheeling diode (FWD)—alternately in a straight line on a single chip, it is possible to realize significant miniaturization when compared with arranging an IGBT and an FWD in two separate chips. A high level of reliability is realized as a result of dispersal of the heat generated during operation.



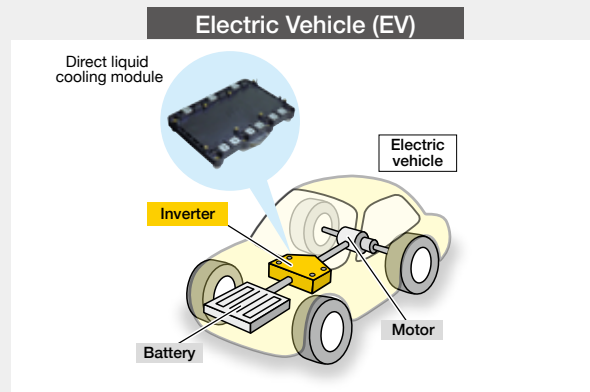
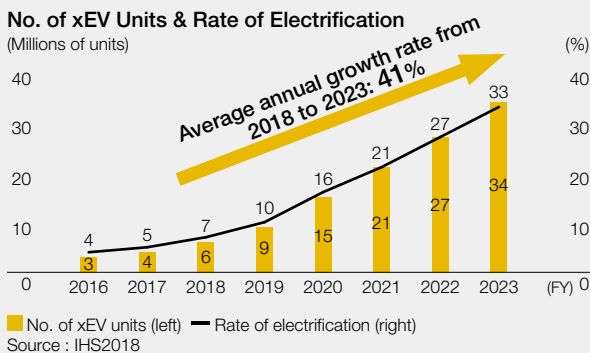
\* Figures derived by comparing IGBT and FWD with RC-IGBT under certain assumed conditions

## Contribute to reducing the environmental impact of EVs and enhance driving distance

In order to improve environmental impact reductions and driving distances for EVs and hybrid electric vehicles, for which we anticipate an increase in demand, there is a need for smaller, lighter, and highly reliable mounted components.

In order to meet that need, Fuji Electric provides direct liquid cooling modules for inverters for motor control applications, which are essential to electrified vehicles (xEVs).

A direct liquid cooling module is equipped with an RC-IGBT and uses a direct cooling structure that has higher heat dissipation performance than prior products, realizing smaller size, lighter weight, and a high level of reliability.



## Realizing higher levels of efficiency and more compact size of power conditioning systems for wind and solar power generation

The introduction of renewable energies such as wind and solar power is proceeding in order to realize a low-carbon society. Power conditioning systems (PCSs), an apparatus for stabilizing power, are needed for wind and solar power generation, while power semiconductors, which convert power efficiently, are indispensable.

The 7th-generation IGBT products offered by Fuji Electric are thinner than previous models. The combination of a chip that reduces power loss through the application of Fuji Electric's micro-machining technology and a module with enhanced heat dissipation properties by applying newly developed materials, realizes highly efficient energy conversion and enhances levels of output electric power density\*. As a result, more efficient and compact PCSs can be realized.

In order to expand use of 7th-generation IGBTs, we will reinforce specification incorporation activities at our design

centers throughout the world, targeting PCS manufacturers. Going forward, we will aim to increase sales by expanding our lineup of high-capacity products not provided by other companies.

\*Power density per unit



# Food and Beverage Distribution

Expand vending machine business in China and Southeast Asia and bolster lineup of labor and energy saving solutions for stores

Executive Officer  
Corporate General Manager,  
Food and Beverage Distribution Business Group

Yasuhiro Takahashi

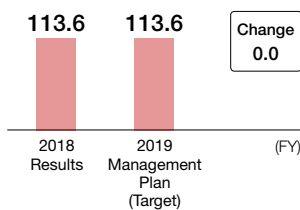


## Business Areas

- **Vending machines**  
Beverage vending machines, vending machines for food and other goods
- **Store distribution**  
Store fixtures and equipment, automatic change dispensers

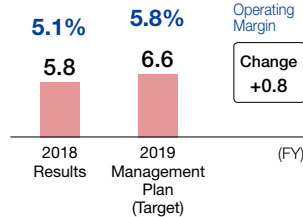
### Net Sales

(Billions of yen)



### Operating Income

(Billions of yen)



a sales and service company in 2018. Our development and production systems in China were reinforced in 2016 with the construction of the second Dalian factory, which was equipped with state-of-the-art automation equipment.

In Southeast Asia, a vending machine operator company was created in Thailand in 2016 and a vending machine production and sales company in Indonesia was acquired from Kubota Corporation in 2017. These two bases are playing a central role in our efforts to explore these markets.

## Priority Measures for Fiscal 2019

Based on an accurate understanding of customer needs, the Food and Beverage Distribution segment is expanding its vending machine business in China and Southeast Asia and bolstering its lineup of labor and energy saving solutions for stores.

### Expand vending machine business in China and Southeast Asia

The items sold in vending machines vary greatly between country and region. Fuji Electric is enhancing its vending machine lineup based on the local needs seen in the markets it serves. For example, operational know-how such as combining the favored temperatures and displays of offerings (beverages, foods or other goods), e-money compatible machines, and the development of machines with internal structures compatible with various container shapes.

Furthermore, the Company is engaged in the development of operation systems that support efficient vending machine operations for customers lacking such know-how in China and Southeast Asia in order to encourage local beverage manufacturers to enter into the vending machine market.

### Bolster lineup of labor and energy saving solutions

In the Food and Beverage Distribution segment, we are developing store management systems that respond to customers' labor and energy saving needs with functions for managing product inventories, achieving traceability, and optimizing store environments.

We are also bolstering our lineup of other products that help alleviate labor shortages. These products include dual stores / 2Way vending machines that enable convenience stores to be converted into vending machine depots during the nighttime hours as well as automatic change dispensers that simplify the cash handling processes needing to be performed by store staff.

## Awareness of Market Needs

In Japan, customers such as beverage manufacturers, convenience stores, and supermarkets are promoting low-labor, energy-efficient operations in response to social issues such as global warming and labor shortages stemming from the shrinking workforce.

Overseas, growing automation needs, such as those arising from the attention surrounding low-labor convenience stores employing cutting-edge technologies, are expected to stimulate increased demand for vending machines in Fuji Electric's focus market of China. As for Southeast Asia, where markets are still taking shape, market participation by major beverage manufacturers is contributing to higher vending machine needs centered on Thailand.

## Strengths of the Food and Beverage Distribution Segment

The strengths of the Food and Beverage Distribution segment include its industry-leading share for vending machines as well as the technological prowess that it has cultivated through the development of freezers and refrigerated showcases for stores. These strengths are centered on the segment's automation, heating and cooling, and currency identification technologies, which will be indispensable strengths in the growing labor saving and energy saving markets.

Fuji Electric began developing its vending machine business in overseas markets a step ahead of the rest of the competitors. In China, our first Dalian factory commenced operations in 2003 as a joint venture with a local partner, and we established



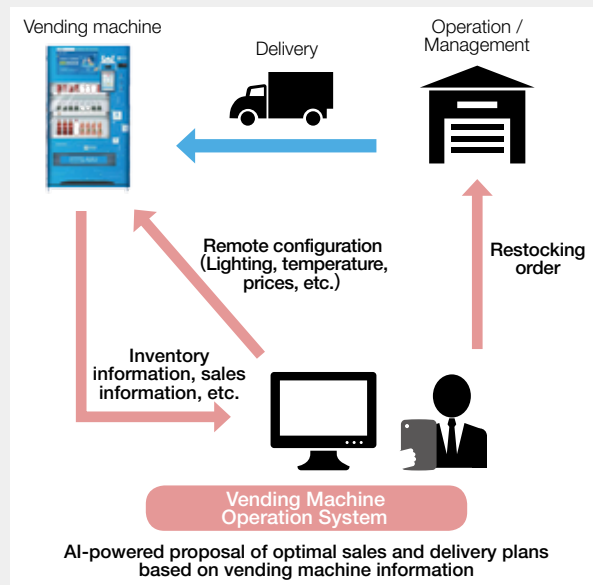
## Supporting efficient vending machine operations for customers with AI

Many vending machine business operators in China lack know-how.

Issues faced in this market include losses of sales opportunities due to depleted stock as well as slow progress in streamlining delivery routes. Improving investment returns through efficient operations will be key to promoting the spread of vending machines going forward.

Capitalizing on the technologies and know-how Fuji Electric boasts as a leading manufacturer in the domestic market, we are moving ahead with the development of a system that uses artificial intelligence (AI) to support vending machine operations. Areas in which this system is applicable include the formulation of the necessary sales and delivery plans and the demand projections for items sold in vending machines.

By packaging AI-powered operation systems with vending machines, Fuji Electric seeks to drive the expansion of vending machine markets by creating frameworks for maximizing customer earnings.



## Contributing to labor and energy savings at stores

### Realizing store labor savings with vending machine automation technologies

In the store distribution business, there is a rising need for the automation technologies that Fuji Electric has fostered through the development of vending machines. We are thus seeing a rise in the introduction of self-service cash registers using Fuji Electric's automatic change dispensers as well as vending machine convenience stores.

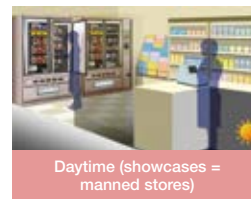
Fuji Electric is also proposing a new store model for stores that have difficulty securing nighttime staff. In this model, we create dual stores / 2Way vending machines that reduce labor requirements and improve consumer convenience by functioning as showcases during the day and vending machines at night.



Automatic change dispenser



Vending machine convenience store



Daytime (showcases = manned stores)



Nighttime (vending machines = unmanned stores)

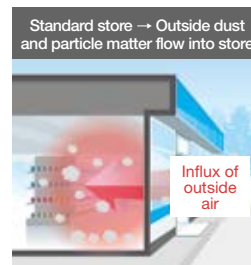
Dual stores / 2Way vending machines

### Reducing air-conditioning energy consumption and influx of dust and particle matter through store air pressure control

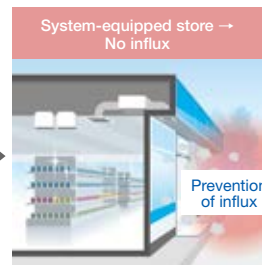
Fuji Electric has developed and launched a new system for controlling the air pressure inside of stores.

This system uses sensors to control the balance of air intake and exhaust by ventilation fans and other equipment to prevent influxes of outside air when automatic doors are opened or closed. Furthermore, the system realizes a 10% reduction in energy consumption by lowering the burden placed on air conditioners while also cutting particle matter influx by 30%, thereby decreasing the amount of cleaning work needing to be done by employees.

This system has won great praise from customers for its ability to contribute to labor and energy savings in stores.



Standard store → Outside dust and particle matter flow into store



System-equipped store → No influx

- 10% reduction in energy consumption
- 30% reduction in particle matter influx

Note: Figures based on a verification test

# Power Generation

Fully leverage cultivated power plant strengths to shift to renewable energy and after-sales businesses

Executive Officer  
Corporate General Manager,  
Power Generation Business Group

Tadao Horie

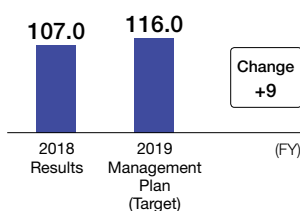


## Business Areas

- **Renewable and new energy**  
Geothermal power, hydro power, solar power, wind power, fuel cells
- **Thermal power**
- **Nuclear power-related equipment**

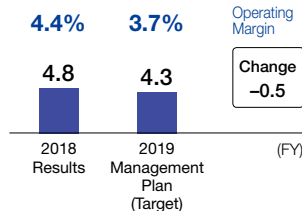
### Net Sales

(Billions of yen)



### Operating Income

(Billions of yen)



## Awareness of Market Needs

Since the adoption of the Paris Agreement, an international framework for combating climate change, there has been a strong global push to realize a low-carbon society. This push has stimulated structural reforms in thermal power businesses in Japan and overseas.

Against this backdrop, it can be expected that use of renewable energy that does not emit greenhouse gases will spread. At the same time, demand is growing on a global scale for the improvement of generation efficiency through replacements of and upgrades to aging generation facilities.

Furthermore, decommissioning has been decided or is being considered with regard to several nuclear power plants in Japan. This situation is expected to drive the growth of the decommissioning system market going forward.

## Strengths of the Power Generation Segment

The Power Generation Segment boasts a diverse lineup of products encompassing thermal power, geothermal power, hydro power, solar power, and wind power generation equipment; nuclear power-related equipment; and fuel cells. We also have an extensive track record of delivering such power generation facilities to a wide range of power generation business operators through engineering, procurement, and construction (EPC) and other arrangements.

Fuji Electric has more than half a century of experience in the thermal and hydro power fields, and we have maintained the top global share of deliveries of geothermal power generation equipment since 2000. In addition, we have participated in

numerous solar power EPC projects as the number of such projects grew rapidly following the introduction of feed-in tariff schemes. In nuclear power-related equipment, we have developed a track record with regard to fuel transport and radioactive waste material treatment facilities.

The plant engineering experience and the insight and expertise gained through this experience are valuable assets of the Power Generation segment.

## Priority Measures for Fiscal 2019

The Power Generation segment has begun overhauling its previous business structure, which was centered on thermal power generation. By fully leveraging its cultivated power plant strengths, Fuji Electric is shifting its business portfolio toward renewable energy and after-sales businesses.

### Expand renewable energy orders

Fuji Electric aims to expand renewable energy orders through the provision of high-value-added solutions. In the wind and solar power fields, we will contribute to stable electricity quality and energy supplies by making excellent use of the various technologies related to control and electricity storage. Meanwhile, in the geothermal power field, we are bolstering our lineup of binary geothermal power offerings that make use of the heat emitted from existing facilities as we seek to help quickly bring geothermal power plants on stream.

### Expand after-sales businesses

In its after-sales businesses, Fuji Electric is shifting its focus from inspections and repairs to proposal-based services. In the thermal and geothermal power field, we boast extensive insight and experience as a power generation equipment manufacturer that is knowledgeable in everything from structures to materials. Leveraging this foundation as well as the technologies of the specialized after-sales service company acquired in the United States in fiscal 2015, we aim to expand orders for onsite and quick delivery after-sales services to improve power generation efficiency and to extend equipment lifespans. As for hydro power, our efforts will be focused on responding to the robust replacement demand by contributing to customers' businesses and to reductions in environmental impacts through such means as improving efficiency and mitigating oil leak risks.

### Reinforce and expand decommissioning system operations

Centered on fuel transport and radioactive waste material treatment facilities, areas where it has a developed track record, Fuji Electric is taking steps to reinforce and expand its domestic decommissioning system operations. Looking specifically at radioactive waste material treatment facilities, we are enhancing our proposal capabilities with the aim of spreading application of the SIAL® cutting-edge solidification technology, which has a track record overseas.

## Contributing to expanded use of renewable energy through binary geothermal power

Since delivering the first geothermal power generation facility to be put to practical application in Japan in 1960, Fuji Electric has proceeded to supply 82 geothermal power turbines around the world with a combined generation capacity of 3.2 GW. Principal examples of Fuji Electric-supplied facilities include one of the world's largest flash-cycle\*<sup>1</sup> turbines as well as one of Japan's largest binary\*<sup>2</sup> turbines.

Demand for binary generation technologies is rising above the demand for flash-cycle technologies as binary technologies allow for power generation to be performed using hot water or low-temperature steam, thus bringing the potential to expand the scope of geothermal power generation businesses.

Fuji Electric is advancing the development of equipment that realizes high-efficiency generation using smaller heat sources. We also package geothermal systems as decentralized power sources in bundles tailored to provide the ideal response to customer needs in order to reduce the amount of expenses and time required for installation. In addition, we develop portable systems to enable equipment to be more easily reused in case a heat source is depleted.

In this manner, we are committed to contributing to the spread of renewable energy by providing these solutions for heightening the profitability of customers' power generation operations.

\*<sup>1</sup> A generation method in which geothermal steam directly turns turbines

\*<sup>2</sup> A generation method in which low-temperature steam or hot water is used to heat and evaporate organic mediums with low boiling points so that the resulting steam can turn turbines



Nga Awa Purua Geothermal Power Station  
(140 MW generation capacity, New Zealand)



Takigami Binary Geothermal Power Station of  
Idemitsu Oita Geothermal Co., Ltd.  
(5.05 MW generation capacity, Oita Prefecture, Japan)

## Upgrading hydro power generation facilities to contribute to higher efficiency and reliability and lower costs

Fuji Electric has been involved in the hydro power field longer than any other area of power generation. Over our many years of involvement in this field, we have delivered 431 hydro power generation facilities to power companies and private generation business operators in Japan with a combined generation capacity of 4.8 GW.

Hydro power has continued to support the economic growth of Japan as a reliable, low-cost base load power supply. As existing hydro power facilities age, demand is growing for scrap and build\*<sup>1</sup> projects.

For example, we installed a turbine designed using state-of-the-art 3D flow analysis technologies at the Akiha No. 1 Power Station and were thereby able to boost this facility's generation capacity from 45.3 MW to 47.2 MW.

One strength of Fuji Electric in this field is its turbine output adjustment technologies. Previously, it has been common for output adjustment to be performed using hydraulic servos for turbines with medium to large output capacities and electric servos for small-capacity turbines. However, Fuji Electric is leading the industry as it was among the earliest to realize the practical application of hybrid servo systems that maintain the cost benefits of electric servos while being applicable to a wider range of turbines.

The upgrade at the Akiha No. 1 Power Station enabled us to refine this system while employing a proprietary design\*<sup>2</sup> that utilizes backup facilities under normal operating conditions in addition to during main equipment failures. This design realizes the same level of performance as a conventional system with less than half the equipment.

The reduction in the number of parts not only increased the reliability and ease of maintenance of the system, but also contributed to significantly lower initial and running costs.

\*<sup>1</sup> Projects in which aged, inefficient facilities are decommissioned and replaced with new facilities to improve efficiency

\*<sup>2</sup> Joint patent held with Electric Power Development Co., Ltd.



Akiha No. 1 Power Station of Electric Power Development Co., Ltd.  
(47.2 MW, Shizuoka Prefecture, Japan)



Hybrid servo system

# Initiatives for Accomplishing the SDGs

## Relationship Between Fuji Electric's Activities and the SDGs

The United Nations Sustainable Development Goals (SDGs) are a set of goals geared toward achieving economic growth while simultaneously addressing social and environmental issues. Fuji Electric's corporate philosophy and management policies and its energy and environment businesses are congruent with the SDGs and other contemporary expectations.

We are committed to contributing to the realization of a sustainable society through the exercise of our corporate philosophy, and the Fuji Electric Code of Conduct has been established based on this commitment to serve as a concrete guide for the actions of employees. In June 2019, the Code of Conduct was revised to further enhance initiatives aimed at the accomplishment of Fuji Electric's ideals.

This revision was meant to present our policies for responding to the SDGs and other targets and standards shared by the global community in a clear form to both internal and external stakeholders. By acting in accordance with the revised Code of Conduct, we will pursue higher corporate value as a sustainably growing company.

### Priority SDGs

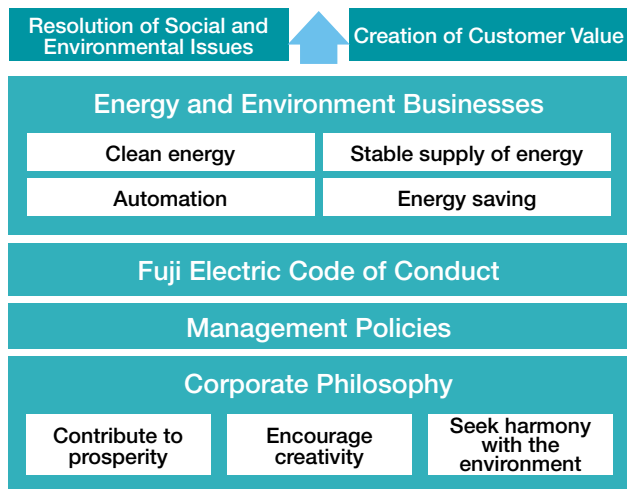
In fiscal 2018, Fuji Electric identified the goals among the SDGs that it will prioritize addressing in its business activities. Assessing the link between the value created by the four businesses advanced by our five segments and contributions to the accomplishment of the SDGs, we selected five priority goals. Furthermore, additional goals were designated as priorities by verifying the relationship between the SDGs and the reinforcement of our operating foundation, making for a total of nine SDGs to be pursued through overall corporate activities.

Contributions to Accomplishment of Five Priority SDGs	
	<ul style="list-style-type: none"> <li>Spread of renewable energy use</li> <li>Improvement of energy efficiency</li> </ul>
	<ul style="list-style-type: none"> <li>Reduction of CO<sub>2</sub> emissions from industrial processes</li> <li>Reinforcement of social and industrial infrastructure</li> </ul>
	<ul style="list-style-type: none"> <li>Provision of energy and other basic services for cities and residential areas</li> <li>Development of sustainable transport systems</li> </ul>
	<ul style="list-style-type: none"> <li>Efficient use of natural resources</li> <li>Rigorous management and reduction of emissions of chemical substances and waste</li> </ul>
	<ul style="list-style-type: none"> <li>Contributions to climate change countermeasures through the supply of products that help reduce CO<sub>2</sub> emissions</li> </ul>

### Policies for Future Initiatives in Contribution to the Achievement of the SDGs

Fuji Electric will continue in-house education activities designed to communicate its policies for contributing to the accomplishment of the SDGs. At the same time, the Environmental Vision 2050 will be used to guide environmental initiatives in our business activities and the disclosure of related information.

The Company has also begun examining methods of assessing the social and economic contributions made to the accomplishment of the SDGs through its business activities from various perspectives, such as quality of life. These assessment methods are scheduled to be instituted in fiscal 2020.





# Material Management Initiatives

## Material Issues to Reinforcing Operating Foundations

Fuji Electric has identified key issues pertaining to the implementation of its Code of Conduct. We are proactively addressing these issues to improve long-term corporate value (the Fuji Electric Code of Conduct is available in its entirety on the following page).

Code of Conduct Area	Key Issues	Major Initiatives	Relevant SDGs	Relevant Pages
Respect and value all people	Human rights	<ul style="list-style-type: none"> <li>Implement human rights due diligence</li> </ul>		People (Employees) P29–P30
	Safe and healthy workplaces	<ul style="list-style-type: none"> <li>Improve occupational health and safety awareness among employees</li> <li>Bolster initiatives for ensuring occupational health and safety and protecting employee health</li> </ul>		
	Diversity	<ul style="list-style-type: none"> <li>Expand areas in which female employees make contributions</li> <li>Utilize employees over 60</li> <li>Broaden scope of duties performed by differently abled employees</li> </ul>		
	Work-life balance	<ul style="list-style-type: none"> <li>Promote flexible workstyles</li> <li>Offer work-life balance support and foster conducive workplace environments</li> </ul>		
	Human resources development	<ul style="list-style-type: none"> <li>Enhance development of future management candidates</li> </ul>		
Respect and value our customers	Improvement of customer satisfaction	<ul style="list-style-type: none"> <li>Improve product and service quality</li> <li>Enhance customer support and service systems</li> </ul>		Customers P31
Respect and value our business partners	Value chains for supporting sustainable societies	<ul style="list-style-type: none"> <li>Practice fair and impartial procurement</li> <li>Fulfill social responsibilities together with business partners</li> </ul>		Business Partners P31–P32
Respect and value our shareholders and investors	Constructive shareholder and investor engagement	<ul style="list-style-type: none"> <li>Conduct timely, fair, and impartial information disclosure</li> <li>Enhance shareholder and investor engagement activities</li> </ul>		Shareholders / Investors P32
Respect and value the global environment	Realization of a low-carbon society	<ul style="list-style-type: none"> <li>Reduce society's CO<sub>2</sub> emissions through provision of energy-saving products</li> <li>Reduce CO<sub>2</sub> emissions during production</li> </ul>		Environment P33–P36
	Creation of a recycling-oriented society	<ul style="list-style-type: none"> <li>Promote 3Rs (reduce, reuse, recycle) in relation to products and production activities</li> </ul>		
Respect and value interaction with society	Community outreach	<ul style="list-style-type: none"> <li>Contribute to communities through activities for protecting the natural environment and promoting youth development</li> <li>Engage in community outreach at major sites of overseas operations</li> </ul>		Social Outreach (Local Communities) P46
Make global compliance a top priority	Effective compliance program implementation	<ul style="list-style-type: none"> <li>Establish and revise internal rules and conduct oversight, monitoring, and education based on the Fuji Electric Compliance Program</li> <li>Cultivate mindset of strict compliance among employees</li> </ul>		Compliance P42–P43
	Risk Management	<ul style="list-style-type: none"> <li>Reinforce business continuity capacities</li> <li>Strengthen information security</li> </ul>		Risk Management P44–P45
Top management will thoroughly practice this Code of Conduct	Improvement of management transparency and oversight function	<ul style="list-style-type: none"> <li>Reinforce corporate governance framework</li> </ul>		Corporate Governance P37–P41

Initiatives for Accomplishing the SDGs

Material Management Initiatives

# Fuji Electric Code of Conduct

The Fuji Electric Code of Conduct is a guideline for the behavior of all employees and simultaneously a declaration of our commitment to resolving social and environmental issues across the supply chain and contributing to the accomplishment of the SDGs through our corporate activities.

## Forward

Fuji Electric and our employees, in our corporate philosophy, state that we “pledge as responsible corporate citizens in a global society to strengthen our trust with communities, customers and partners, and fulfill our mission in good faith,” and through all corporate activities we will “contribute to prosperity,” “encourage creativity,” and “seek harmony with the environment,” while also contributing to the achievement of the United Nations Sustainable Development Goals (SDGs).

In order to practice our corporate philosophy to fulfill social responsibility and act with high ethical standards while understanding and complying with relevant laws, regulations, international rules, and the spirit of such regulations and rules, both domestically and abroad, Fuji Electric and its employees have defined this code as a foundation for decision-making and behavior.

## 1. Respect and value all people

Fuji Electric and its employees will respect human rights in their relationships within all corporate activities. In addition, we will promote the activities of diverse human resources, and strive to create a workplace that takes health and safety into consideration, with each employee having decent work.

- We will conduct human rights due diligence to recognize, prevent, and deal with adverse human rights harm based on international human rights standards such as the Universal Declaration of Human Rights and the United Nations Guiding Principles on Business and Human Rights.
- We will build human resources and handling systems that enable employment and performance of diverse human resources, and strengthen human resource training to achieve development for each employee and the full potential of teams.
- We will put top priority on employee health and safety, and strive to create an efficient and comfortable work environment.

## 2. Respect and value our customers

Fuji Electric and its employees will strive to improve customer satisfaction by expanding business globally and providing safe, secure, and reliable products and services that make full use of energy and environmental technologies.

- We will promote technology development and manufacturing that meet the needs of our customers, and provide safe, reliable, high-quality products and services with all our strength.
- We will respond to our customers in good faith and reflect their feedback in improvements to products and services.

## 3. Respect and value our business partners

Fuji Electric and its employees, along with business partners, will promote procurement activities aimed at establishing fair and equitable transactions and a supply chain that supports a sustainable society.

- Through fair and equitable transactions, we will build better partnerships, deepen mutual understanding, and strive to maintain and improve cooperative relationships.
- We will seek suppliers globally that are highly competitive in terms of quality, price, turnaround, and service, and that consider sustainability in terms of the environment, society, and governance.

## 4. Respect and value our shareholders and investors

Fuji Electric and its employees will deepen mutual understanding and trust by promoting honest and active information disclosure and constructive dialogue with shareholders and investors.

- Financial information will be provided that is useful to shareholders and investors, and non-financial information such as environmental, societal and governance matters, in a timely and fair manner, and in accordance with relevant laws, regulations, and the Company's fair disclosure policy.
- Constructive dialogue with shareholders and investors will be conducted through financial results briefings and small meetings, and information obtained from such dialogue will be shared as feedback with executives and relevant departments.

## 5. Respect and value the global environment

Fuji Electric and its employees will, according to the Fuji Electric Basic Environmental Protection Policy, proactively and actively tackle global environmental issues in all corporate activities and contribute to the realization of a low-carbon, recycling-oriented society that is in harmony with nature.

- With the aim of achieving a low-carbon society, we will strive to reduce greenhouse gas emissions from our own production activities and, by providing products and services to customers that help prevent global warming, we will contribute to the reduction of CO<sub>2</sub> in society.
- With the aim of achieving a recycling-oriented society, we will strive to reduce our environmental impact throughout our supply chain, and promote waste reduction during production with efficient use of water and the 3Rs (reduce, reuse, recycle).
- With the aim of achieving a society in harmony with nature, we will promote activities that contribute to conservation of biodiversity through our corporate activities.

## 6. Respect and value interaction with society

Fuji Electric and its employees will, as good corporate citizens, actively participate in communities, communicate with local stakeholders, and contribute to their development through collaboration.

- We will strive to understand social circumstances in each country and region, and gain mutual trust with our stakeholders through communication.
- We will work with local communities, governments, NGOs, and other stakeholders in communities in an effort to contribute to those communities by resolving social issues.

## 7. Make global compliance a top priority

### 7-1 Thorough compliance

Fuji Electric and its employees will, as members of a highly public group that declares its contributions to solutions to global problems such as the environment and energy, recognize the importance of compliance, fully understand domestic and foreign laws, customs, and all other social norms and their spirit, comply with them, and always act with the highest ethical standards.

- Acting in accordance with laws, regulations and ethical standards
- Complying with contracts
- Prevention of bribery and corruption
- Compliance with competition laws
- Fair selection of business partners
- Insulation from antisocial forces
- Distinction between public and private, and prohibition of insider trading
- Build sound relationships with political bodies and government agencies

### 7-2 Thorough risk management

Fuji Electric and its employees will implement thorough risk management for the sustainable growth of Fuji Electric.

- We will strictly manage our intellectual property, personal information, customer and confidential information, and fully respect the property and information of others.
- In addition to natural disasters, we will build and strengthen our organizational crisis management system to protect employee safety and business continuity from malicious threats such as cyber attacks and terrorism.

## 8. Top management will thoroughly practice this Code of Conduct

To put this Code of Conduct into practice, Fuji Electric management will build and promote a governance system that ensures the soundness, efficiency, transparency, and effectiveness of corporate management, and a compliance system that ensures thorough compliance with laws and social norms. This Code of Conduct will be shared with all employees and communicated to partners, etc., as well as supply chains.

In the event of a violation of the law or any other situation that violates this Code of Conduct, while working to resolve issues and fulfilling accountability to society, top management will strive to investigate causes, recover damages, prevent recurrence, and deal strict punishment.



# People (Employees)

From the perspective of guaranteeing the ongoing development of its business, Fuji Electric is seeking to secure talented human resources by promoting diversity, through means such as promoting inclusion of senior citizens and women in the workforce; fostering a comfortable workplace; enabling flexible workstyles; and bolstering our competitiveness in recruitment. The foundation for these activities is formed by the principles of respect for human rights, occupational health and safety, and protection of employee health. In addition, our human resource strategies prioritize selection and development from a results-oriented perspective and the development of human resources for expanding global operations in order to bolster our business constitution and competitiveness.

## Respect for Human Rights

### Enhancement of Human Rights Due Diligence Activities

The Fuji Electric Code of Conduct states that we should “respect and value all people,” and we are promoting respect for human rights accordingly.

The Company respects the human rights of all of its employees and practices human rights due diligence to ensure that the rights of everyone connected to its business activities are respected.

Based on international human rights standards, such as the Universal Declaration of Human Rights, as well as on the UN Guiding Principles on Business and Human Rights, the 2019 revision of the Fuji Electric Code of Conduct clearly states our commitment to ensure that the Company is never involved in or complicit in human rights violations.

## Occupational Health and Safety

### Acceleration of Occupational Health and Safety Initiatives

Fuji Electric believes that the “health and safety of workers takes precedence over everything else” and has positioned occupational health and safety as a top priority for the Company. In line with this philosophy, we actively communicate the principles of our Health and Safety Basic Policy both inside and outside of the Company and are advancing occupational health and safety initiatives based on this policy.

Health and safety education programs based on hands-on curricula are planned and implemented on an ongoing basis throughout the duration of each year. These programs include legally mandated health and safety education, training for new employees, and education and training programs planned by operating sites or construction work sites. In addition, we provide training for supervisors and health and safety representatives to educate the frontline leaders at associate companies. A focus in recent years has been traffic seminars and mental health education aimed at eliminating accidents involving commercial vehicles.

In recognition of these efforts, Fuji Electric was included in the 2019 Certified Health & Productivity Management Organization Recognition Program (White 500) in fiscal 2018, recognizing it as a company exhibiting excellence in health and productivity management.

#### Frequency Ratio of Occupational Accidents (in Japan)

(FY)	2014	2015	2016	2017	2018
Fuji Electric	0.12	0.08	0.08	0.19	<b>0.08</b>
Number of occupational accidents	33	30	24	23	<b>23</b>
All industries	1.66	1.61	1.63	1.66	<b>1.83</b>
Electrical equipment manufacturers	0.41	0.54	0.51	0.45	<b>0.58</b>

Scope: Fuji Electric Co., Ltd.; Fuji Electric FA Components & Systems Co., Ltd.



## Diversity

### Support for Contributions by Diverse Human Resources

One of Fuji Electric’s management policies states that we will “maximize our strengths as a team, respecting employees’ diverse ambition.” Diversity has been identified as an important priority of human resource strategies accordingly.

The aging population in Japan is expected to lead to a significant expansion in the number of employees aged over 60 a decade from now, making the transmission of manufacturing skills an important task. For this reason, we are examining the possibility of introducing new employee treatment systems to promote the contributions of all employees over 60, not just those with high-level technical skills.

Meanwhile, Fuji Electric is working to empower its female employees through the continued implementation of work-life support systems and promotion of diverse workstyles. In addition, we are enhancing the mentor system for female employees and seeking to expand the female population at Fuji Electric by aggressively recruiting female university students from science and engineering backgrounds. Steps are also being taken to increase the number of female employees in supervisory positions by bolstering career development support for female employees and offering them a wider range of opportunities to tackle new challenges.

## Female Employees and Managers

(FY)	2017	2018	2019	2023 Target
Ratio of female employees among newly hired employees*1	14%	20%	<b>21%</b>	20%
Ratio of female employees in management positions*2	1.9%	1.9%	<b>2.3%</b>	3.0%
Number of female employees in supervisory positions*3	215	225	<b>249</b>	400

Data collected from Fuji Electric, Fuji Electric FA Components & Systems, Fuji Office & Life Service, Fuji Electric IT Center, Fuji Electric Finance and Accounting Support, Fuji Architects and Engineering, and Fuji Electric Frontier Companies hiring new female employees are Fuji Electric and Fuji Electric FA Components & Systems

\*1 Number of newly hired female employees refers to graduates from universities or technical colleges

\*2 Number of female employees in management positions refers to employees of manager rank or above

\*3 Number of female employees in supervisory positions refers to employees of assistant manager class or above



Fuji Electric promotes the employment of differently abled individuals with a goal of enabling as many such individuals as possible to continue working until retirement age. Accordingly, we aim to grow rates of employment of differently abled individuals while remaining above the legally mandated rate. Efforts to this end include the expansion of the scope of duties performed by differently abled individuals, support for ongoing employment, and other measures for promoting the employment of differently abled individuals.

## Ratio of Differently Abled Employees to Total Employees

(FY)	2017	2018	2019
Number of differently abled employees	370	378	<b>397</b>
Employment rate	2.51%	2.57%	<b>2.73%</b>

Legally Mandated Ratio: 2.0% until 2017, 2.2% from 2018

## Work-Life Balance

### Workstyle Reforms and Work-Life Balance Support

We are strengthening initiatives to help employees achieve work-life balance by creating workplace environments that are more conducive to the efforts of diverse employees and that enable people to fulfill their potential.

Fuji Electric is promoting flexible workstyles through the introduction of Location Flexible working systems that enable employees to work in satellite or home offices. At the same time, we seek to reduce excessive work hours and encourage employees to acquire consecutive days of paid leave in order to facilitate workstyles that achieve a better balance between work and private life.

Furthermore, the Company is bolstering its range of work-life balance support systems and fostering conducive workplace environments to help employees raising children or caring for family members strike a better balance between their work and their private life while still exercising their full talents at work.

### Paid Vacation Days Acquired Annually and Average Overtime Work Hours in Japan

(FY)	2016	2017	2018
Paid vacation days acquired annually	14.3	14.1	<b>14.5</b>
Average overtime work hours	22.07	23.34	<b>24.04</b>

### Location Flexible Working System Use

(FY)	2017	2018
Home office (registered users / number of uses)	559 / 610	<b>744 / 1,940</b>
Satellite office (registered users / number of uses)	284 / 444	<b>387 / 457</b>

## Human Resource Development

### Enhancement of Management Skills and Future Management Candidate Development

Developing the skills of employees is a top priority for management. We are focused on cultivating professionals that can contribute to increased global competitiveness as we implement proactive employee training and education programs.

Employee awareness surveys have indicated a need to enhance mid-level line management (manager rank) capabilities. We are addressing this need through systematic rotation programs for enabling managers to gain more experience as well as through other initiatives to augment management skills. The Company has also instituted measures for cultivating future management candidates. Opportunities for enhancing the development of the management candidates that will shape the future of Fuji Electric include careful selection of candidates from among junior employees, effective on-the-job training through position rotations, and participation in selective training.

Individuals will be registered as management candidates on a single-year basis, and the registered candidates will be replaced based on annual evaluations to promote ongoing development.

Fuji Electric also implements a variety of other training programs on an ongoing basis. These programs include level-specific training, which is conducted in conjunction with promotions, special assignments, or other such timings to foster management capabilities, human skills, and logical thinking capacities. We also offer specialized-field training, for enabling employees to improve their capabilities or acquire specialized knowledge or skills; manufacturing training, for learning techniques and technologies; and global employee training. In addition, employees are positioned strategically based on their individual experience and skills.

# Customers

Fuji Electric promotes technology development and manufacturing that meet the needs of our customers, and provides safe, reliable, high-quality products and services with all our strength. In addition, we respond to our customers in good faith and reflect their feedback in improvements to products and services.

## Improvement of Customer Satisfaction

### Enhancement of Customer Support and Service Systems

Fuji Electric's Quality Assurance Policy stipulates that we are to assure the industry's highest standard for quality in all of our products and services. We are therefore advancing quality improvement initiatives through a Companywide organizational structure. In addition, we formulate a High Reliability Activities Policy each year, based on which we dedicate our efforts to improving quality at every stage of our business, from product planning to sales and service.

Each business segment caters to different customers. Accordingly, service divisions have been established in all segments. We are also developing global service systems to ensure that we are equipped to satisfy our customers.

Furthermore, our power electronics systems business and Food and Beverage Distribution segment have call centers that respond to customer inquiries 24 hours a day, 365 days a year. We also pursue higher levels of customer satisfaction through customer satisfaction activities in which we endeavor to broaden our business scope beyond after-sales services to deliver solution services that utilize Fuji Electric products and technologies to resolve customer issues.

### Major Initiatives in Fiscal 2018

Power Electronics Systems	Reinforcement of support systems by expanding scope of models (gas analyzers) that can receive maintenance at the Company's Thailand base
Electronic Devices	Bolstering of support system by broadening the range of models for which inquiries can be addressed through call centers (Shenzhen, China)
Food and Beverage Distribution	Improvement of service quality by developing cloud-based service platform (China)
Power and New Energy	Enhancement of upgrade services by bolstering sales and technical service systems at bases in Vietnam and other parts of Asia

## Business Partners

Fuji Electric aspires to build strong relationships with its business partners through fair and equitable transactions, and we are working together with our partners to promote procurement activities that contribute to the development supply chains capable of supporting a sustainable society. We are committed to fair and equitable procurement that is compliant with relevant laws and regulations in Japan and overseas, and our procurement activities are tailored for sustainability from both social and environmental perspectives.

## Supply Chains for Supporting a Sustainable Society

### Fair and Equitable Procurement

Fuji Electric strictly adheres to principles of fair and equitable procurement in compliance with procurement-related laws.

The divisions responsible for procurement at the head office and other domestic operating sites take steps to ensure legal compliance through regular audits of procurement activities and compliance training. Meanwhile, procurement divisions at overseas affiliate companies are implementing procurement-related rules and standards based on the regulations of their respective countries.

We also operate a Partner Hotline System on Fuji Electric's corporate website through which business partners can make reports regarding misconduct in the Company's procurement activities in order to prevent and quickly detect unlawful or unethical behavior. By earnestly addressing feedback from business partners, we seek to build trusting relationships.

## CSR Exercised Together with Business Partners

Fuji Electric believes that it is important to aim to be a company with high social value by working with its business partners to fulfill its corporate social responsibility (CSR). To this end, we are promoting initiatives to prevent compliance violations and human rights infringements across the supply chain while addressing conflict minerals. Proactive green procurement initiatives are implemented from the perspective of environmental preservation.

In addition, CSR surveys are administered as one facet of our CSR procurement efforts. In 2018, these surveys indicated that there were no business partners in need of immediate

corrective measures. Revisions will be made to surveys and feedback methods going forward in order to facilitate better understanding of the circumstances at business partners through future surveys.

### Major Initiatives in Fiscal 2018

- CSR surveys (administered to top 500 business partners accounting for 80% of domestic transaction amounts)
- Procurement policy briefings for business partners (at individual factories and operating sites)
- Procurement-related compliance training (held at 32 bases on rotational basis, 1,045 participants)

## Shareholders / Investors

Fuji Electric is committed to building upon trusting relationships with shareholders and other investors. To this end, we practice timely, fair, and equitable disclosure of information required by law and the regulations of the stock exchanges on which the Company is listed as well as of other information deemed to be of value to shareholders and investors. In addition, members of top management take part in activities for engaging with shareholders and other investors.

## Constructive Dialogue with Shareholders and Investors

### Timely, Fair, and Equitable Information Disclosure

Fuji Electric discloses information that may have a material impact on the investment decisions of shareholders and other investors in an effort to earn trust and foster proper understanding with regard to the Company. In these disclosure activities, we release information as required by law and by the disclosure regulations of the stock exchanges on which the Company lists its stock as well as in accordance with the Fair Disclosure Rule of the Financial Services Agency.

Furthermore, we actively disclose information deemed relevant to shareholders and other investors, such as answers to questions frequently asked by such stakeholders, whether this information is management related, financial information, or non-financial information pertaining to social or environmental matters.

Such information is promptly disclosed through the Company's corporate website.

### Meaningful Dialogue with Shareholders and Investors

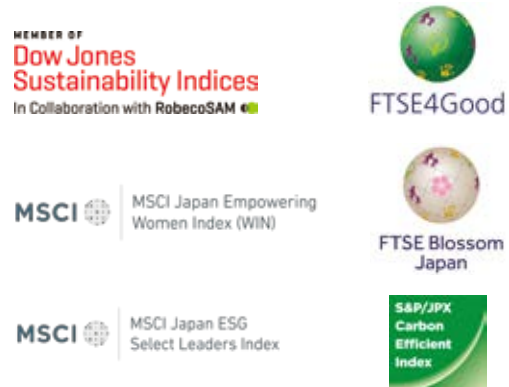
The Company emphasizes dialogue with shareholders and other investors in its investor relations activities, and we are dedicated to enhancing reciprocal communication in these activities. We also strive to make effective use of the input gained through these activities by relaying it to the Board of Directors, management, and relevant divisions through reports to committees or paper reports as deemed necessary.

### Major Initiatives in Fiscal 2018

Analysts and institutional investors	<ul style="list-style-type: none"> <li>■ Financial results briefings: 4</li> <li>■ Management plan briefing: 1</li> <li>■ Business strategy briefing: 1</li> <li>■ Factory tours: 2</li> </ul>
Private shareholders and investors	<ul style="list-style-type: none"> <li>■ Factory tours for shareholders: 4 factories (Suzuka, Tokyo, Kobe, and Chiba)</li> <li>■ Fuji Electric system solutions exhibits (498 participants in factory tours and system solutions exhibits)</li> </ul>

### External Recognition

Fuji Electric has been included in the following socially responsible investment indexes, indicating that it has been recognized as a socially responsible company.





Executive Officer  
Corporate General Manager,  
Production & Procurement Group  
Fuji Electric Co., Ltd.

Masashi Kawano

Message from the Environmental Officer

## Establishment of Environmental Vision 2050

Preventing climate change, effectively utilizing natural resources, preserving biodiversity, and addressing other environmental issues are garnering rising attention. At the same time, the global community is increasingly taking action toward realizing a sustainable environment. This push to global action can be seen in the adoption of the SDGs by the United Nations in 2015 and in the implementation of a climate change response framework in the form of the Paris Agreement in 2016.

Recognizing this social push, Fuji Electric established its Environmental Vision 2050 to guide action for contributing to environmental preservation based on even loftier targets.

The vision sets the goal of our environmental initiatives to be realizing a low-carbon society, a recycling-oriented society, and a society in harmony with nature. Fuji Electric is approaching this goal through a supply chain-wide effort to reduce greenhouse gas emissions, promote the 3Rs (reduce, reuse, recycle), and minimize impacts on ecosystems. We are thus working to accomplish this goal through the efforts of employees as well as those of our associates.

Fuji Electric is dedicated to contributing to the realization of sustainable societies with innovative technologies and products going forward.

Fuji Electric positions the preservation of the environment as among its top management priorities, and it has established its Basic Environmental Protection Policy to guide activities for addressing environmental issues. We have since been consistent in our approach to reducing the environmental impacts of our business activities, and today we have in place an environmental management system that facilitates contributions to environmental preservation through our business.

In regard to global warming countermeasures in fiscal 2018, contributions to CO<sub>2</sub> emission reductions from products totaled 30,160,000 tons as a result of the high number of contributing products shipped. Meanwhile, greenhouse emissions from production activities increased by 15,000 tons because of higher production levels, but emissions per unit of production decreased by 1 ton per ¥100 million worth of production.

The ratio of waste sent to landfills, a target for our efforts to contribute to the realization of a recycling-oriented society, was 1.6% on a Companywide basis, a reduction of 0.7 percentage point year on year.

Meanwhile, we helped protect biodiversity through ocean and river preservation initiatives conducted as part of our social contribution activities.

From fiscal 2019 forward, we will be adhering to the newly established Environmental Vision 2050 as we seek to contribute to the realization of a low-carbon society, a recycling-oriented society, and a society in harmony with nature.

### Basic Environmental Protection Policy

1. Offering products and technologies that contribute to global environmental protection
2. Reduction of environmental burden throughout product lifecycles
3. Reduction of environmental burden in business activities
4. Compliance with laws, regulations, and standards
5. Establishment of environment management systems and continuous improvements of the systems
6. Improvement of employees' environmental awareness and social contribution
7. Promotion of communication

### Fuji Electric's Environmental Vision 2050

We aim to achieve a "Low-Carbon Society," "Recycling-Oriented Society," and "Society in Harmony with Nature" by expanding use of Fuji Electric's innovative clean energy technology and energy-saving products.

#### Realize a Low-Carbon Society

Target a reduction of 80% or more in greenhouse gas emissions across the supply chain

#### Realize a Recycling-Oriented Society

Promote green supply chains and 3R\* activities to reduce environmental impact to zero

#### Realize a Society in Harmony with Nature

Aim for zero influence on the ecosystem by corporate activities contributing to biodiversity

### Fiscal 2030 Target

#### Reducing Environmental Burden

- Reduce greenhouse gas emissions during production by 31% (Greenhouse gas emissions' base year: Fiscal 2013)

#### Creating Environmental Value

- Reduce 50 million tons of CO<sub>2</sub> emissions through products annually

\* Reduce, reuse, recycle



# Realization of a Low-Carbon Society— Reduction of Society's CO<sub>2</sub> Emissions through Products

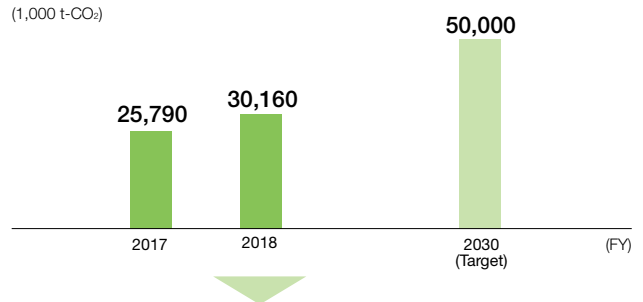
Reductions in CO<sub>2</sub> Emissions through Products in Fiscal 2018  
**30,160,000 tons**

By encouraging customers to use our clean energy facilities and energy-saving products, we are able to reduce CO<sub>2</sub> emissions from the use of our products. Fuji Electric calculates the contributions to CO<sub>2</sub> emissions reductions made over a full year of operation by all of the products it has shipped since fiscal 2009 (excluding those that have reached the end of their average life spans).

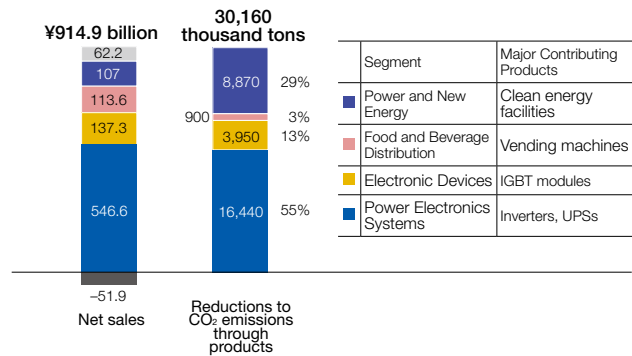
In fiscal 2018, the contribution to CO<sub>2</sub> emissions reductions from products was 30,160,000 tons. This contribution was largely a result of sales of clean energy facilities in the power and new energy business and of energy-saving equipment such as inverters in the power electronics systems business and IGBT modules in the electronic devices business. This amount of reduction was equivalent to 2% of Japan's total greenhouse gas emissions in fiscal 2016 (approximately 1.3 billion tons).

Beginning with fiscal 2019, Fuji Electric will work toward accomplishing the target for reductions to society's CO<sub>2</sub> emissions through products set in the Environmental Vision 2050 (50 million tons in fiscal 2030).

## Reductions in CO<sub>2</sub> Emissions through Products



## Net Sales and Reductions in CO<sub>2</sub> Emissions through Products by Segment in Fiscal 2018



Note: The contributions to CO<sub>2</sub> emission reductions refers to CO<sub>2</sub> emission reductions from products shipped in and after fiscal 2009 that were in operation for a year. Calculated based on the Ministry of Economy, Trade and Industry's Guideline for Quantifying Greenhouse Gas Emission Reduction Contribution

## Products Contributing to Reductions to Society's CO<sub>2</sub> Emissions

### Case Example: Geothermal Power Generation Contribution to reductions of 4 million tons of CO<sub>2</sub> a year

Geothermal power is a form of renewable energy that is generated using steam and hot water underground. Binary geothermal power generation employs new technologies that make it possible to generate geothermal power using low-temperature heat sources. These technologies are put to use in the Takigami Binary Geothermal Power Plant, which is located at the foot of Mount Kuju in Oita Prefecture. Fuji Electric was contracted for procurement, production, and construction activities pertaining to this power plant, which went onstream in March 2017 boasting a generation capacity of 5,050 kW, among the largest in Japan.

The geothermal power generation plants Fuji Electric has delivered since 2009 have a combined total generation capacity of 846 MW. The combined total CO<sub>2</sub> emissions from these plants is 4 million tons less per year than would be emitted by standard thermal power generation plants with the same generation capacity.



Takigami Binary Geothermal Power Station

### Case Example: General-Purpose Inverters Contribution to reductions of 1.2 million tons of CO<sub>2</sub> a year through energy savings

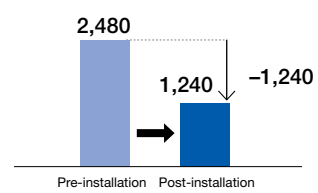
Inverters are used to control motor rotations in pumps, fans, and conveyance systems. With inverter control, the amount of electricity consumption decreases in proportion to the cube of the motor rotations. Electric equipment using inverter control can therefore save 50% more energy compared with equipment not using inverters (damper control), assuming operation at 80% wind output.

In fiscal 2018, we shipped roughly 15,000 mega-type general-purpose inverters (with a combined capacity of 100 kW), contributing to reductions of 1.2 million tons of CO<sub>2</sub> a year.



FRENIC-MEGA general-purpose inverter

Annual Reductions to CO<sub>2</sub> Emissions (1,000 t-CO<sub>2</sub>)  
Based on fiscal 2018 shipments of mega-type general-purpose inverters



Note: Calculated under standard operating conditions  
50% decrease in electricity consumption when operating with 20% reduction in wind output  
CO<sub>2</sub> coefficients  
Japan: 0.496 kg-CO<sub>2</sub>  
Overseas: 0.506 kg-CO<sub>2</sub>

## Realization of a Low-Carbon Society— Reduction of Greenhouse Gas Emissions During Production

### Total Greenhouse Gas Emissions from Production Activities

**499,000 tons\*** (down 7% from fiscal 2013)

As part of its efforts to contribute to the realization of a low-carbon society, Fuji Electric is working to reduce the greenhouse gases emitted during production activities. When converted to a CO<sub>2</sub> basis, total greenhouse gas emissions in fiscal 2018 amounted to 499,000 tons, an increase of 15,000 tons and a reduction of 1 ton per ¥100 million worth of production in terms of emissions per unit of production compared with the previous year.

Of this, CO<sub>2</sub> emissions came to 357,000 tons, an increase of 1,000 tons year on year. This outcome is largely a result of higher orders, and consequently production of, power semiconductors and other offerings in the electronic devices business and products such as energy-saving equipment and systems in the power electronics systems business.

Energy conservation activities aimed at reducing CO<sub>2</sub> emissions had the benefit of lowering emissions by 8,000 tons on a Companywide basis. Renewable energy usage is being promoted as one facet of these activities. On this front, we installed a new solar power generation system at Wuxi Fuji Electric FA Co., Ltd., of China. This system is supplying clean energy that accounts for approximately 20% of the electricity used to power the factory's production activities.

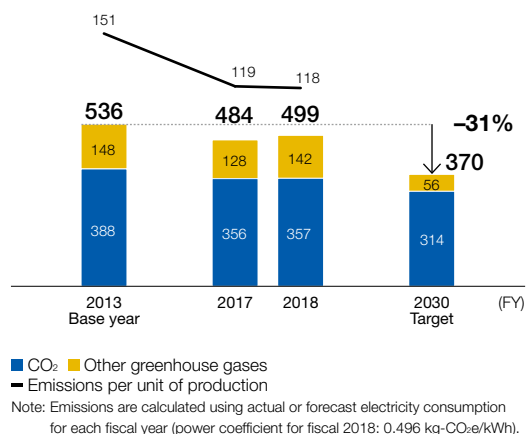
Emissions of greenhouse gases other than CO<sub>2</sub> totaled 142,000 tons, up 14,000 tons year on year. This increase was primarily due to the bolstering of equipment to accommodate higher production levels in the electronic devices business.

In fiscal 2019 and beyond, we will be accelerating initiatives for achieving the greenhouse gas emissions reduction target set for fiscal 2030. CO<sub>2</sub> emission reduction initiatives will include tracking energy usage and installing LED lighting and high-efficiency air conditioners. As for greenhouse gases other than CO<sub>2</sub>, we will target emission reductions by installing abatement apparatus and switching to alternative gases.

Note: The power coefficient used for conversions is 0.496 kg-CO<sub>2</sub>e/kWh.

### Total Greenhouse Gas Emissions from Production Activities and Target

Emissions (1,000 t-CO<sub>2</sub>)      Emissions per unit of production (tons/¥100 million)



Case Example

### Prevention of Global Warming through Energy Savings in Production Activities Suzuka Factory

The Suzuka Factory is our principal production base for power electronics system products, and this factory is aggressively pursuing energy savings through three initiatives to help prevent global warming.

The first initiative was the introduction of an energy usage monitoring system that can monitor electricity usage conditions by piece of equipment, which has made it possible to implement real-time energy conservation efforts. The second initiative was to improve energy efficiency. Measures with this regard included the replacement of aged equipment with Fuji Electric inverters and high-efficiency air conditioners, which are effective in reducing the energy consumption of production equipment. The third initiative was to entrench energy conservation awareness among all employees. All employees at the Suzuka Factory are taking part in energy conservation activities, such as regularly turning off lights. These initiatives resulted in a 1% year-on-year reduction in total electricity consumption in fiscal 2018, despite the overall increase of 6% in total production hours,\* to 850,000 hours, that stemmed from higher production levels.

\* Total production hours is the sum of all hours spent by all employees directly performing production processes.



Energy usage monitoring system



# Realization of a Recycling-Oriented Society

## Efficient Use of Water Resources

**Companywide Water Usage in Fiscal 2018**

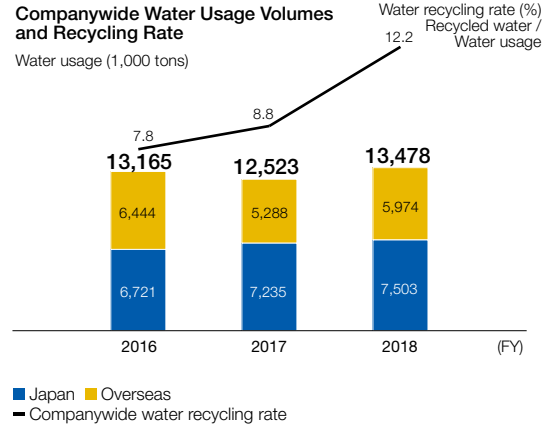
**13,478,000 tons**

Japan: 7,503,000 tons (Target: 7,297,000 tons)  
Overseas: 5,974,000 tons (Target: 5,901,000 tons)

As part of its efforts to efficiently use water resources, Fuji Electric is increasing its water recycling rates with the goal of reducing total water usage.

In fiscal 2018, we failed to meet our water usage targets both in Japan and overseas due to higher production levels. However, the water recycling rate rose by 3.4 percentage points year on year due to the recycling of an additional 600,000 tons of water at the Malaysia Factory.

Going forward, we will endeavor to further reduce Companywide water usage by raising water recycling rates at factories.



## Waste Reduction

**Ratio of Waste Sent to Landfills (Companywide)**

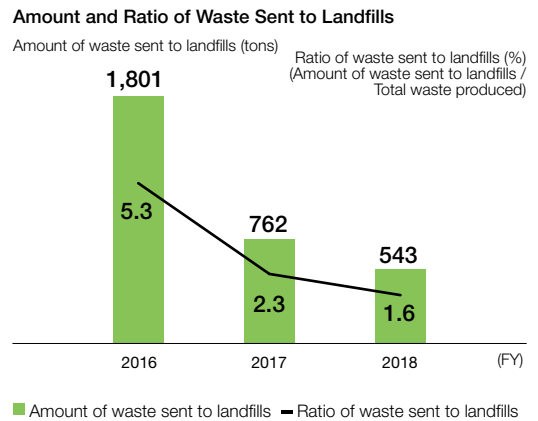
**1.6%**

Japan: 0.6% (Target: Less than 0.5%)  
Overseas: 3.7% (Target: Less than 7.0%)

Fuji Electric's initiatives to reduce waste production volumes and the ratio of waste sent to landfills includes making lighter and more compact products and reducing defective products at the manufacturing stage.

On a Companywide basis, the ratio of waste sent to landfills in fiscal 2018 decreased 0.7 percentage point, to 1.6%. Overseas, this ratio was 3.7%, 3.3 percentage points lower than the target of 7.0%, due to a change in the sludge treatment method at the Malaysia Factory.

Looking ahead, Fuji Electric will continue striving to reduce the Companywide ratio of waste sent to landfills below 1.0% by fiscal 2030.



## Realization of a Society in Harmony with Nature

Guided by the Fuji Electric Biodiversity Action Guidelines, the Company is advancing biodiversity preservation activities through its social contribution activities and through its business of supplying products that reduce air pollution and other environmental impacts.

For example, the SOx scrubbers released in fiscal 2018 (see page 18) help prevent air pollution by cleaning ship exhaust gas to remove more than 98% of the pollutant sodium oxide (SOx) contained therein.

**Fuji Electric Biodiversity Action Guidelines**

1. Reduce environmental impact through our energy and environment technologies, and contribute to biodiversity
2. Minimize the impact of our business on biodiversity and promote sustainable use
3. Work with society to actively promote biodiversity action

**Case Example: Reduction of Amount of Waste Sent to Landfills Malaysia Factory**

The waste water produced during the manufacture of electronic devices is discharged into rivers after extracting the metal-containing sludge through treatment procedures. As recent as fiscal 2016, the Malaysia Factory was burying this sludge, which was thus accounted for directly in the amount of waste sent to landfills. As the Malaysia Factory was searching for methods of putting this sludge to better use, AKBK Sustainable Resource Management Centre, a new waste recycling plant operated by a Japanese company, was established. We were thus prompted to look into the possibility of recycling this sludge as cement, a waste treatment method that had not been used in Malaysia previously. We were able to adopt this treatment method, and recycling commenced when the AKBK Sustainable Resource Management Centre started operation in fiscal 2017. As a result, the amount of waste sent to landfills at the Malaysia Factory in fiscal 2018 was approximately 70% lower than in fiscal 2016.

AKBK Sustainable Resource Management Centre (Malaysia)

# Corporate Governance

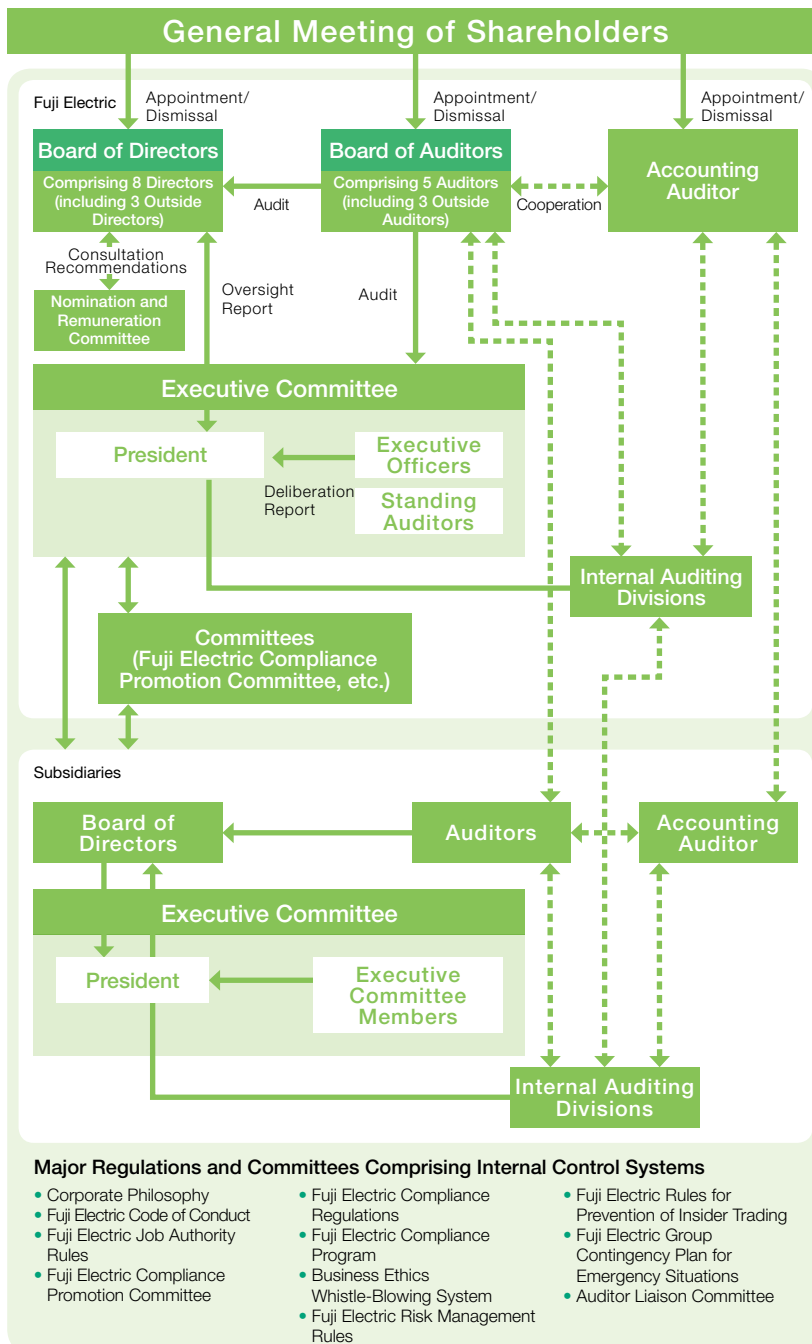
Fuji Electric is reinforcing its corporate governance toward the improvement of its management transparency and its oversight function.

## Basic Policies

To help realize our corporate philosophy, in which we pledge as responsible corporate citizens in a global society to strengthen our trust with communities, customers, and partners, Fuji Electric is enhancing management transparency and oversight functions, and reinforcing corporate governance while pursuing the following policies.

1. Protecting shareholder rights and ensuring their equal treatment
2. Conducting appropriate collaboration with non-shareholder stakeholders
3. Guaranteeing proper information disclosure and ensuring transparency
4. Executing the duties of the Board of Directors
5. Engaging in dialogue with shareholders

## Corporate Governance Framework



### Directors and Board of Directors

The Board of Directors conducts decision making and oversight of the management of Fuji Electric and the execution of important business activities. The terms of Directors have been set as one year in order to clarify the management responsibilities of Directors for each fiscal year and create a framework that is conducive to flexible responses to operating environment changes.

### Auditors and Board of Auditors

The Board of Auditors inspects Fuji Electric's management and business execution.

### Nomination and Remuneration Committee

The Nomination and Remuneration Committee ensures the transparency and objectivity of the process for the nomination and remuneration of Directors and Auditors. The committee is composed of Standing and Outside Directors with a majority of Outside Directors, and the committee Chairman is an Outside Director. The committee began its activities in July 2019.

### Executive Committee

The Executive Committee deliberates important matters and makes reports to enable monitoring of the status of management as a consulting body for the president. The Executive Committee is composed of Executive Officers and is always attended by Standing Auditors.

### Executive Officers

Executive Officers conduct business execution functions and their terms have been set as one year. The duties of each Executive Officer are decided by a resolution of the Board of Directors, thereby clarifying responsibilities and improving the efficiency of business execution.

## Outside Officers

Fuji Electric proactively appoints Outside Officers with a view to strengthening the management supervisory function from an objective perspective and maintaining the validity and appropriateness of business decisions. Based on the following independence criteria, Fuji Electric ensures that Outside Officers remain independent of the Company, and notification has been submitted that these Outside Officers are Independent Directors / Auditors as required by domestic financial exchanges, including the Tokyo Stock Exchange.

After their appointment, Outside Officers participate in internal technology presentations and business site inspections

to deepen their understanding of Fuji Electric's management. In fiscal 2018, a business site inspection took place at Chiba Factory. Outside Officers were given explanations of the factory after which they toured the actual production floors and engaged in discussions with factory managers.



Tour of Chiba Factory

### Outside Directors

Name	Status of Attendance at Board of Directors Meetings (Meetings Attended/ Meetings Held)	Main Activities (Fiscal 2018)
Toshihito Tamba	13/13	Mr. Tamba offered opinions as necessary on all areas of Fuji Electric's management at the Board of Directors meetings, including on the following matters, based on his professional standpoint and considerable insight as a manager of listed companies. <ul style="list-style-type: none"> <li>■ Formulation of a business plan taking into account changes in the market environment</li> <li>■ Appropriate ways to conduct investor relations (IR) activities</li> </ul>
Naoomi Tachikawa	13/13	Mr. Tachikawa offered opinions as necessary on all areas of Fuji Electric's management at the Board of Directors meetings, including on the following matters, based on his professional standpoint and considerable insight as a manager of listed companies. <ul style="list-style-type: none"> <li>■ Management of progress for large-scale projects</li> <li>■ Necessity of paying attention to material procurement and human resources</li> </ul>
Yoshitsugu Hayashi	10/13	Mr. Hayashi offered opinions as necessary on all areas of Fuji Electric's management at the Board of Directors meetings, including on the following matters, based on his professional standpoint and considerable insight as an environmental engineer. <ul style="list-style-type: none"> <li>■ Appropriate ways to carry out research and development</li> <li>■ Initiatives aimed at reducing Fuji Electric's environmental footprint</li> </ul>

### Outside Auditors

Name	Status of Attendance at Board of Directors Meetings Status of Attendance at Board of Auditors Meetings (Meetings Attended/ Meetings Held)	Main Activities (Fiscal 2018)
Yoshiki Sato	13/13 7/8	Mr. Sato confirmed and offered opinions as necessary at meetings of the Board of Directors concerning agenda items and the status of Fuji Electric's business activities based on his extensive experience and considerable insight as a manager at financial institutions. At meetings of the Board of Auditors, he confirmed and offered opinions on the legal compliance of the overall business activities of Fuji Electric.
Akiko Kimura	13/13 8/8	Ms. Kimura confirmed and offered opinions as necessary at meetings of the Board of Directors concerning agenda items and the status of Fuji Electric's business activities based on her expert knowledge as an attorney. At meetings of the Board of Auditors, she confirmed and offered opinions on the legal compliance of the overall business activities of Fuji Electric.
Tetsuo Hiramatsu	13/13 8/8	Mr. Hiramatsu confirmed and offered opinions as necessary at meetings of the Board of Directors concerning agenda items and the status of Fuji Electric's business activities based on his extensive experience and considerable insight as a manager at financial institutions. At meetings of the Board of Auditors, he confirmed and offered opinions on the legal compliance of the overall business activities of Fuji Electric.

### Independence Criteria for Outside Officers

The Company judges the applicable candidate to be fully independent from the Company when he/she does not fall under any of the conditions listed below in addition to criteria of independence stipulated by domestic financial exchanges including the Tokyo Stock Exchange.

- |                            |   |
|----------------------------|---|
| (1) Major shareholder      | A major shareholder of the Company (who owns 10% or more of the voting rights) or its executor of business.   |
| (2) Major business partner | A business partner (consultants such as lawyers, certified public accountants, and tax accountants, as well as consulting firms such as law firms, audit firms, and tax firms) or a person executing its business whose transactions with the Company exceed 2% of the annual consolidated net sales of the Company or the other entity in the past three fiscal years. |
| (3) Major lender, etc.     | A financial institution, other major creditor, or a person executing the business of these institutions that is indispensable for the Company's funding and on which the Company depends to the extent that it is irreplaceable.  |
| (4) Accounting auditor     | A certified public accountant who belongs to an auditing firm that serves as the accounting auditor of the Company or employee, etc. of such auditing firm.   |
| (5) Donee                  | A person executing the business of an organization which receives a donation exceeding 10 million year per year that is greater than 2% of its annual income from the Company for the past three fiscal years.  |

## Executive Remuneration

Fuji Electric has established a remuneration system and remuneration levels for Directors and Auditors that are deemed appropriate for their respective duties and in accordance with

### Standing Directors

As Standing Directors are charged with the responsibility of improving consolidated operating performance for each fiscal year and realizing improvements in corporate value over the medium-to-long-term, their remuneration is structured and managed in two categories: base remuneration and performance-linked remuneration.

#### Base Remuneration

Base remuneration is a predetermined amount that is paid to executives according to their position. A portion of the base remuneration is contributed to the director shareholding association to share the economic interests of shareholders and as an incentive to make management aware of share value.

#### Performance-Linked Remuneration

Performance-linked remuneration is paid only in instances in which dividends are paid to all shareholders from retained earnings. The total amount of executive performance remuneration shall be within 1.0% of consolidated net income for the fiscal year prior to the date of payment in order to make the link with consolidated results for each fiscal year more clearly.

shareholder mandates, giving due consideration to the aims of securing and maintaining competent personnel and providing incentives for the improvement of business performance.

### Outside Directors and Auditors

Remuneration for Outside Directors and Auditors is paid as a predetermined amount as Outside Directors and Auditors are charged with the duty of supervising or auditing the execution of duties across Fuji Electric. Outside Directors and Auditors may acquire stock in the Company at their own discretion.

### Remuneration Paid to Directors and Auditors (Fiscal 2018)

Classification	Total Remuneration (Millions of Yen)	Remuneration by Type (Millions of Yen)		Number of Recipients
		Base Remuneration	Performance-Linked Remuneration	
Directors (excluding Outside Directors)	365	240	125	5
Auditors (excluding Outside Auditors)	58	58	—	2
Outside Officers	50	50	—	6

Notes: The above amount is the amount of performance-linked remuneration to be paid to Directors, which was determined in June 2019.  
The amount of performance-linked remuneration in fiscal 2017 was ¥115 million.

## Internal Control System

With the aim of complying with laws and regulations, managing the risk of loss, and securing the efficiency of the execution of duties, the Fuji Electric Board of Directors determines basic policies concerning the establishment of an internal control system as stipulated in the Companies Act of Japan, and the Company discloses those policies. Fuji Electric discloses

information on the implementation of its internal control system, thereby taking steps to respond promptly and accurately to the demands placed upon the Company by society. Such information includes descriptions of provisions for ensuring that Directors and employees perform their duties in a manner that is compliant with laws and the articles of incorporation.

### Main Systems Based on the Internal Control System

#### Compliance System (Please refer to page 42 for details.)

Based on systems for ensuring that Directors and employees perform their duties in a manner that is compliant with laws and the articles of incorporation, Fuji Electric has established and promotes a compliance system in order to secure the transparency and soundness of business execution.

#### Risk Management System (Please refer to page 44 for details.)

Based on regulations and other systems pertaining to managing the risk of loss, Fuji Electric has developed an appropriate risk management system in order to manage business risks in a coordinated, systematic manner. In regard to specific cross-sectional risks, the Company determines departments to put in charge of each risk, thereby establishing a risk management system.

## Audits by the Board of Auditors and Internal Audits

### Audits by the Board of Auditors

Auditors attend meetings of the Board of Directors and other important meetings based on the audit policies and duties assigned in accordance with the standards for audits put forth by the Board of Auditors. Audits are performed by receiving explanations on the status of operational execution from Directors, reviewing documents pertaining to important resolutions, investigating the status of operations and assets at major operating sites, and requesting reports on operations from subsidiaries as necessary. In addition, Auditors pursue

increased coordination with the Accounting Auditor and with internal auditing divisions. At the monthly meetings of the Auditor Liaison Committee, Auditors share information with internal auditing divisions as well as report on the results of the internal audits for the previous fiscal year and the internal audit plans for the current fiscal year. Through activities such as these, we are ensuring the effectiveness of audits across the Group.

### Internal Audits

Internal auditing divisions perform internal audits based on internal audit standards and annual audit plans. These audits look at areas such as organizational management, risk management, compliance, operational execution, and accounting from the perspectives of legal compliance in business activities, reliability of financial reporting, preservation of asset portfolios, and operational effectiveness and efficiency. A total of 44 bases

were audited in fiscal 2018. No risks or inadequacies with the potential to seriously impact management were discovered.

Information on auditing activities is shared between the internal auditing divisions of the Company and its subsidiaries in order to ensure the effectiveness of internal audits across the Group.

## Approach to Cross-Shareholdings

Fuji Electric holds shares in listed companies only when it determines that doing so is necessary from the standpoint of maintaining and strengthening business alliances and transactions for business activities. The Company regularly conducts com-

prehensive evaluations at meetings of the Board of Directors on the risks and returns that result from holding such shares and sells off cross-shareholdings in cases when it determines that there is no rationality for holding such shares.



# List of Officers (As of July 1, 2019)

## Directors



President and Chairman of the Board of Directors  
**Michihiro Kitazawa**



Elected Corporate Director  
**Kenzo Sugai**



Outside Director  
**Toshihito Tamba**  
Chairman & Co-CEO,  
Representative Director,  
Tokyo Century Corporation



Outside Director  
**Naomi Tachikawa**



Outside Director  
**Yoshitsugu Hayashi**  
Professor, Institute of  
Science and Technology  
Research, Chubu University



Director  
**Michio Abe**



Director  
**Masatsugu Tomotaka**



Director  
**Junichi Arai**

## Auditors



Standing Auditor  
**Yoshio Okuno**



Standing Auditor  
**Junichi Matsumoto**



Outside Auditor  
**Yoshiki Sato**  
Chairman of the Board,  
Asahi Mutual Life Insurance  
Company  
External Auditor, ADEKA  
Corporation  
Outside Director, FUJI  
KYUKO CO., LTD.  
President, National  
Federation of UNESCO  
Associations in JAPAN



Outside Auditor  
**Akiko Kimura**  
Of Counsel, Anderson Mori  
& Tomotsune



Outside Auditor  
**Tetsuo Hiramatsu**  
President, NIPPON TOCHI-  
TATEMONO Co., Ltd.

## Executive Officers

President	<b>Michihiro Kitazawa</b>	General Management
Executive Vice President	<b>Kenzo Sugai</b>	Assistant to the President, Sales Management
Senior Managing Executive Officers	<b>Michio Abe</b>	In charge of Production & Procurement and Power Generation Business
	<b>Masatsugu Tomotaka</b>	In charge of Power Electronics Systems Energy Business and Power Electronics Systems Industry Business
Managing Executive Officers	<b>Junichi Arai</b>	Corporate General Manager, Corporate Management Planning Headquarters, General Manager, Export Administration Office, In charge of compliance management and crisis management
	<b>Toru Housen</b>	Corporate General Manager, Electronic Devices Business Group
Executive Officers	<b>Takeshi Kadoshima</b>	General Manager, Human Resources and General Affairs Office
	<b>Kenji Goto</b>	Deputy Corporate General Manager, Power Electronics Systems Energy Business Group
	<b>Yasuhiro Takahashi</b>	Corporate General Manager, Food and Beverage Distribution Business Group
	<b>Susumu Shinmura</b>	Corporate General Manager, Sales Group
	<b>Masahiro Morimoto</b>	Corporate General Manager, Power Electronics Systems Energy Business Group
	<b>Shiro Kondo</b>	Corporate General Manager, Corporate R&D Headquarters
	<b>Tadao Horie</b>	Corporate General Manager, Power Generation Business Group
	<b>Masashi Kawano</b>	Corporate General Manager, Production & Procurement Group
	<b>Hiroshi Tetsutani</b>	Corporate General Manager, Power Electronics Systems Industry Business Group

# Compliance

Fuji Electric employs thorough measures to ensure compliance with laws and corporate ethics and always acts with the highest ethical standards to achieve sustained corporate growth.

## Basic Policies

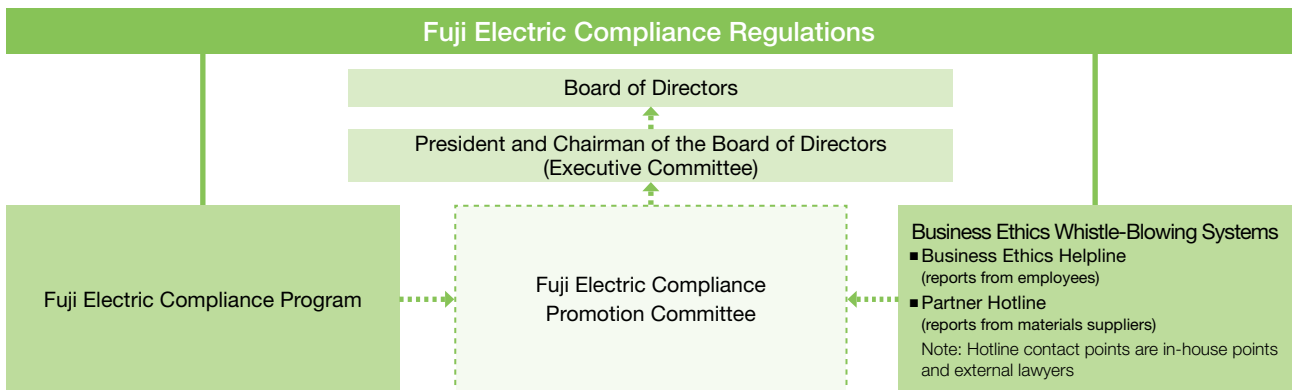
We state in the Fuji Electric Code of Conduct that we shall “make global compliance a top priority,” and this has been incorporated into our basic policy on compliance. Based upon this policy, we have established the Fuji Electric Compliance

Regulations, which is a concrete guideline for compliance, and we promote compliance through the Fuji Electric Compliance Program and the Fuji Electric Business Ethics Whistle-Blowing Systems.

## Compliance Promotion System

The Fuji Electric Compliance Promotion Committee—headed by a representative director and composed of the managers (corporate general managers and general managers) responsible for regulating laws and/or acts, with Standing Auditors and outside experts (attorneys) as observers—has jurisdiction over compliance of Fuji Electric. With the goal of achieving full compliance with laws and social norms globally, the committee meets twice each fiscal year to deliberate on compliance execution and planning and reports the results of these deliberations to the

Board of Directors. Furthermore, in the event of a compliance infraction, the committee has a system in place to take any necessary measures after carrying out deliberations on conducting fact-finding investigations, taking corrective actions, taking measures to prevent a recurrence, dealing with the infraction internally, and internal and external disclosure.



## Status of Compliance Promotion

### (1) Fuji Electric Compliance Program

Fuji Electric has established the Fuji Electric Compliance Program, which brings together four aspects (see numbers 1–4 below) of domestic, overseas laws (laws regarding anti-corruption, fair competition, labor, human rights, product safety, the environment, taxation, accounting and information security, and export management as well as other areas) for the Company and Group companies in Japan and overseas. The Fuji Electric Compliance Promotion Committee implements the program while continuously reviewing it and making revisions.

1. Establishment, revision, abolition, and dissemination of internal rules
2. Constant monitoring of status of compliance with laws and internal rules
3. Auditing of status of compliance with respect to 1. and 2.
4. Compliance education regarding laws and internal rules

### Compliance Education

Based on the Fuji Electric Compliance Program, Fuji Electric promotes wide-ranging compliance education and instruction through level-specific and job-specific group training and e-learning programs, as well as displaying posters internally and distributing pamphlets.



Training for newly appointed managers

## Examples of Training Conducted in Fiscal 2018

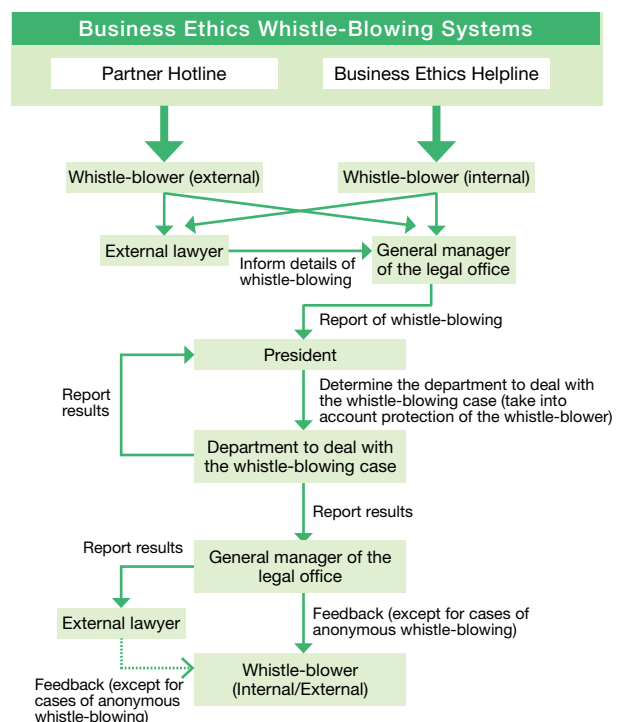
	Participants	Type and Subject of Training
<b>Level-Specific Training</b>	Newly appointed executives 27 Newly appointed managers 97 New employees 234	Classroom-based training on topics including the Fuji Electric compliance system and the Fuji Electric Compliance Program
<b>Training for All Employees</b>	All employees	e-learning program on the protection of personal information and other topics

## (2) Fuji Electric Business Ethics Whistle-Blowing Systems

To prevent infractions of the aforementioned laws, regulations, and internal rules and ensure early detection, Fuji Electric has introduced, and is operating, the Fuji Electric Business Ethics Whistle-Blowing Systems. Under these systems, internal and external parties can report violations or suspected violations of laws, regulations, or internal rules to Fuji Electric's president via the department responsible for compliance or through an external lawyer. These systems rigorously protect whistle-blowers by concealing their identity and prohibiting them from being subject to disadvantageous treatment, retaliation, or discrimination on the grounds of whistle-blowing.

These systems are the Business Ethics Helpline, which handles notifications from our employees in Japan and overseas (including dispatch employees); and the Partner Hotline, which handles notifications from our suppliers about Fuji Electric's materials procurement operations. The Business Ethics Helpline is promoted among employees at all compliance training sessions and through postings on the Company's intranet and on internal bulletin boards. Awareness of the Partner Hotline among business partners is fostered through postings on the Company's website and at explanatory forums. Fuji Electric obtains reports of whistle-blowing cases filed every year and takes necessary measures—such as conducting fact-finding investigations, taking corrective actions, and taking measures to prevent a recurrence—aimed at resolving issues raised by whistle-blowers.

### Framework of the Business Ethics Whistle-Blowing Systems



## Results of Compliance Promotion

As a result of implementing the Fuji Electric Compliance Program and the Fuji Electric Business Ethics Whistle-Blowing Systems, there were no compliance infractions with the potential to seriously impact management in fiscal 2018.

We are enhancing prevention of the violation of competition laws by establishing as rules the regulations set forth in the Antimonopoly Act Compliance Manual, the Foreign Competition Law Compliance Manual, and other regulations, as well as daily monitoring through confirmation of quotations and estimates via an extensive information management system and thorough record-keeping. In addition, auditing divisions perform audits in accordance with auditing guidelines and extensive level-specific and job-specific training is conducted.

As a result of these initiatives, there were no serious problems that warranted disclosure in fiscal 2018.

In regard to the prevention of corruption, the Fuji Electric Code of Conduct and a directive on the prevention of

corruption established a rule that no employee is to offer or receive bribes to or from public- or private-sector officials in any country or region. Prevention of corruption is reinforced through thorough daily monitoring, auditing, and training. Stricter laws and regulations pertaining to corruption are being instituted in Southeast Asia and other regions. Fuji Electric is responding to this trend by constantly monitoring its operations through coordination with law firms and reflecting the new laws and regulations in its rules and education when necessary.

As a result of these initiatives, there were no serious problems that warranted disclosure in fiscal 2018.

# Risk Management

Fuji Electric is strengthening its risk management to maximize corporate value and minimize the potential impact of risks.

## Basic Policies

Based on the Fuji Electric Risk Management Rules, the Company manages risk in a coordinated, systematic manner. We will practice appropriate management and counter various risks that could affect the Company's management in order to

prevent risks from materializing (crisis situations), thereby minimizing the impact on management in the event that risks materialize.

## Types of Risk and Risk Management System

### Risk Classification System

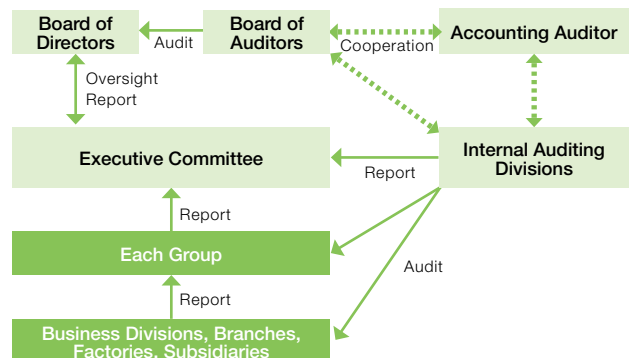
Fuji Electric divides risks into categories and conducts risk management optimized for each category.

External Risks	Business Risks		
<b>Risks related to the external environment</b> <ul style="list-style-type: none"> <li>Economic trends</li> <li>Attacks from outside</li> <li>Natural disasters and accidents</li> </ul> others	<b>Risks related to business activities</b>		
	<b>Strategic Risks</b> Risks related to policies and strategies <ul style="list-style-type: none"> <li>Management strategy</li> <li>Business environment</li> <li>Corporate governance</li> <li>Partnering and withdrawal</li> </ul> others	<b>Operational Risks</b> Risks related to business processes Quality, cost, and deadlines for all aspects of business such as orders, production, shipment and services others	<b>Common Risks</b> Risks related to business activities <ul style="list-style-type: none"> <li>Human rights and labor practices</li> <li>Compliance</li> <li>Information systems</li> <li>Environmental pollution</li> </ul> others

### Risk Management System

Fuji Electric's business divisions and affiliate companies are responsible for the management of risk related to their business activities as part of their business responsibilities, developing appropriate risk management systems and implementing risk countermeasures.

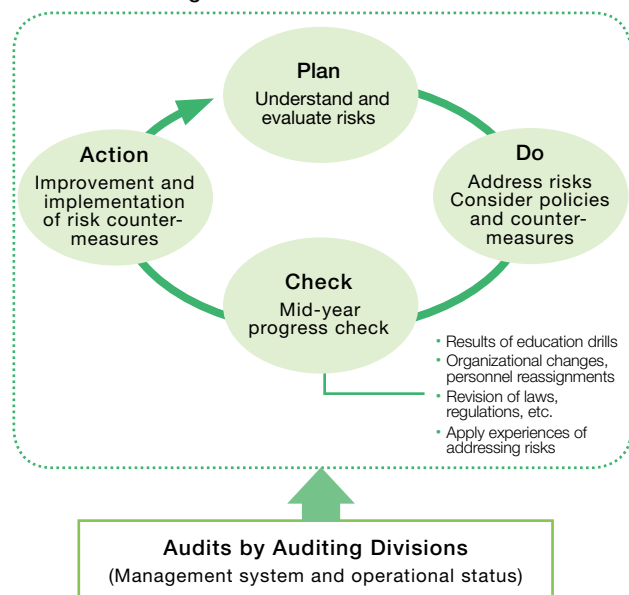
Additionally, significant risks, such as business plans and large-scale investments, are reported at the Executive Committee as appropriate, thereby facilitating the sharing of information.



## Risk Management Process

Fuji Electric implements an annual risk management process and revises it continuously. When annual budgets are formulated, business divisions and affiliate companies understand and evaluate risks related to their business activities. Policies and countermeasures in response to risks (aversion, mitigation, relocation, retention and so forth) are considered based on their impact on management and frequency of occurrence, a person responsible for executing the policies and countermeasures is designated, and the policies and countermeasures are implemented. Mid-year progress checks are conducted at the end of the second quarter of the fiscal year, and risk countermeasures are improved and implemented.

### Annual Risk Management Process



Material Management Initiatives

## Strengthening of Business Continuity Capabilities

In order to uphold its social responsibilities as a company, Fuji Electric aims to continue core operations even if unexpected events such as natural disasters and accidents occur by providing a stable supply of high performance, high-quality products and services required by our customers.



Fuji Electric received Resilience certification under the program established by the Cabinet Secretariat's National Resilience Promotion Office in recognition of active efforts to ensure business continuity.

### Fire Safety and Disaster-Preparedness Initiatives

Based on the Disaster Prevention and Procedural Manual, all of Fuji Electric's bases have developed disaster-response systems and have put in place thorough measures to ensure that

structures and facilities are earthquake resistant, stockpile emergency goods, and conduct regular drills, among other measures.

### Business Continuity Initiatives

In addition to fire safety and disaster-preparedness initiatives, Fuji Electric has formulated a business continuity plan (BCP) at the head office, which acts as a command center during disasters, and at factories that house a large number of key management resources. We have also established Companywide BCPs for procurement sections, which manage the supply chain, and for IT sections, which manage the information systems.

In fiscal 2018, we once again expanded the range of products covered under the BCP. In addition, we conducted simulation drills based on large-scale earthquake and explosion scenarios targeting business supervisors and base managers, while all employees took part in safety confirmation drills. Going forward, we will continue to expand the range of products covered under the BCP while striving to raise awareness of and make ongoing improvements to it, thereby strengthening business continuity capabilities.



Simulation drills in response to a large-scale earthquake

### Response to Natural Disasters in Fiscal 2018

In fiscal 2018, Japan was struck by frequent natural disasters, including heavy rains in west Japan, an earthquake in the Kansai region, and the 2018 Hokkaido Eastern Iwate earthquake. Fuji Electric extends its condolences to those impacted by these disasters.

No damages occurred to employees or physical assets at Fuji Electric affiliates or bases and no significant impacts to production were seen. We responded to these disasters through coordination between the head office crisis response division, procurement management divisions, customer-related divisions, and business divisions based on predetermined disaster response systems and procedures.

In response to the widespread power outages that followed the Hokkaido earthquake, we were able to avoid any significant confusion as a result of our efforts to swiftly confirm the safety of employees and the impact on customers. Taking the lessons learned through these disasters to heart, we installed emergency power generators at various operational sites.

## Information Security

### Implementation of Security Measures

To protect confidential and personal information properly, Fuji Electric has formulated and implemented a policy and regulations related to information security with consideration for the laws of relevant countries. In addition, information management systems are put in place at Group companies and systems have been instituted to manage access to operational sites and to information, among other information security measures. Meanwhile, we endeavor to prevent information leaks while strengthening information security by instituting annual training programs for employees and conducting inspections and implementing improvements through effective

management and audits of workplaces.

Fuji Electric has developed a countermeasure system and established a computer security incident response team (CSIRT) and a security operation center (SOC) to handle ever more diversified cyber security risks, through which we monitor for attacks and quickly gain control in the event of attacks. We also take ongoing steps to improve our ability to respond to the constant emergence of new threats through the reinforcement of our defense and detection systems and through cyber training.

### External Certification Related to Information Security

Companies that handle customers' confidential and personal information and require high-level information security management have acquired external certification. As of April 1, 2019, a total of five departments at three Group companies have

acquired information security management system (ISMS) certification. In addition, Fuji Electric Co., Ltd. and four subsidiaries have acquired Privacy Mark certification.



# Social Outreach (Local Communities)

Our basic stance toward the communities surrounding our operating sites is to utilize the human resources and technologies developed through our business to build stronger relationships and foster ties by contributing to the resolution of global social and environmental issues. To this end, we take part in various initiatives to help further the development and energization of communities.

## Relationship Building with Communities

### Environmental Preservation

Fuji Electric conducts tree planting, thinning, tree cutting, and other forest preservation activities centered on the communities surrounding its operating sites in Japan and overseas. These activities are in part based on the recognition that forests help absorb CO<sub>2</sub> and thereby prevent global warming.

The Company is also engaged in various other environmental preservation activities, including biodiversity conservation activities that take advantage of forests on factory sites.

#### Major Initiatives in Fiscal 2018

- Forest restoration project (Azumino City, Nagano Prefecture)
- Development of *Musashino no Mori* (Tokyo Factory)



Employees performing forestry work (Fuji Electric Meter Co., Ltd.)



*Musashino no Mori* (Tokyo Factory)

### Promotion of Youth Development

Fuji Electric holds science classes for elementary school students at major factories in Japan. In these classes, we aim to communicate to students the wonders of science and technology and the importance of manufacturing and to teach them about the social contributions made through these areas.

In addition to classes for children, we also conduct a private-sector corporate training program for teachers as one facet of our efforts to promote communication between companies and educators. This program is designed to help teachers better understand the appeal of science and the importance of manufacturing while providing them with information on the latest technological trends and other topics. Participants have been incorporating this information into their classes.

#### Major Initiatives in Fiscal 2018

- Science classes for elementary school students (at 10 factories in Japan)
- Private-sector corporate training for teachers (Board of Education of Hino City, Tokyo)
- Donations of educational supplies to Darma Persada University (Indonesia)



Science class (Kawasaki Factory)



Private-sector corporate training for teachers (Hino City, Tokyo)

### Supporting Disaster Recovery and Reconstruction Efforts

Fuji Electric provides reconstruction support to areas impacted by natural disasters in Japan and overseas.

For example, the Company donated to assist the victims of the heavy rains that struck west Japan in July 2018 and to support reconstruction in the three prefectures that were most

seriously impacted (Hiroshima, Okayama, and Ehime).

The Company and Group companies also made donations to support reconstruction after the 2018 Hokkaido Eastern Iburi earthquake.

# Consolidated Financial and Non-Financial Highlights

## Financial Highlights

Fiscal Year	2010	2011	2012	2013
<b>Operating Results</b>				
Net sales	689,065	703,534	745,781	759,911
Japan	510,843	525,096	567,314	582,223
Overseas	178,221	178,437	178,466	177,688
Operating income	11,917	19,252	21,992	33,136
Net income attributable to owners of parent	15,104	11,801	26,368	19,582
<b>R&amp;D and Capital Investment</b>				
R&D expenditures	32,568	32,247	31,160	32,029
Plant and equipment investment* <sup>2</sup>	27,223	24,989	31,771	26,916
Depreciation and amortization* <sup>3</sup>	27,945	29,755	31,054	30,849
<b>Cash Flows</b>				
Cash flows from operating activities	53,853	28,314	55,342	53,651
Cash flows from investing activities	84,241	(13,489)	(24,286)	(9,649)
Free cash flow	138,094	14,825	31,055	44,002
Cash flows from financing activities	(93,468)	(32,592)	(56,827)	(50,569)
<b>Financial Position</b>				
Total assets* <sup>4</sup>	805,797	792,848	765,563	810,774
Total net assets	174,935	183,217	215,672	251,225
Shareholders' equity	155,355	163,576	194,572	227,181
Net interest-bearing debt	225,059	225,227	217,417	200,340
Interest-bearing debt	306,856	289,489	257,105	233,753
<b>Financial Indicators</b>				
Ratio of operating income to net sales (%)	1.7	2.7	2.9	4.4
ROE (Return on equity) (%)	9.0	7.4	14.7	9.3
ROA (Return on assets) (%) <sup>4</sup>	1.8	1.5	3.4	2.5
Equity ratio (%) <sup>4</sup>	19.3	20.6	25.4	28.0
Net debt-equity ratio (times) <sup>5</sup>	1.4	1.4	1.1	0.9
Debt-equity ratio (times) <sup>6</sup>	2.0	1.8	1.3	1.0
<b>Per Share Data*<sup>7</sup></b>				
Net income	21.14	16.52	36.90	27.41
Net assets	1,087.00	1,144.55	1,361.45	1,589.80
Cash dividends	20.00	20.00	25.00	35.00
Dividend payout ratio (%)	18.9	24.2	13.6	25.5

## Non-Financial Highlights

Fiscal Year	2010	2011	2012	2013
Employees (Headcount)	24,562	24,973	24,956	25,524
Japan	18,002	17,933	18,271	18,022
Overseas	6,560	7,040	6,685	7,502
Total greenhouse gas emissions from production activities (10,000 t-CO <sub>2</sub> )	59.1	54.0	50.2	53.6
Reductions in CO <sub>2</sub> emissions through products (10,000 t-CO <sub>2</sub> )* <sup>8</sup>	130	233	392	601

\*1 The U.S. dollar amounts represent the arithmetic results of translating yen into dollars at ¥110 = U.S. \$1, the approximate exchange rate at March 31, 2019.

\*2 Plant and equipment investment is the total of investment in tangible fixed assets, including acquisition amounts for lease contracts.

\*3 Depreciation and amortization expense is the total of the depreciation of tangible fixed assets and amortization of intangible assets.

\*4 Effective April 1, 2018, the Company has adopted "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, revised on February 16, 2018). As such, major management indicators in consolidated accounting period as of March 31, 2018 have been adjusted to retroactively apply said accounting standards.

\*5 Net debt-equity ratio is the ratio of net interest-bearing debt (interest-bearing debt + lease obligations - cash and cash equivalents) to shareholders' equity.

\*6 Debt-equity ratio is the ratio of interest-bearing debt to shareholders' equity.

					Millions of yen	Thousands of U.S. dollars*1
2014	2015	2016	2017	2018	2018	
810,678	813,550	837,765	893,451	914,915	<b>8,317,414</b>	
605,763	597,757	632,723	674,744	682,503	<b>6,204,573</b>	
204,915	215,793	205,042	218,707	232,412	<b>2,112,841</b>	
39,316	45,006	44,709	55,962	59,972	<b>545,203</b>	
27,978	30,644	40,978	37,763	40,267	<b>366,073</b>	
35,023	35,949	34,910	35,620	33,669	<b>306,087</b>	
29,041	27,650	27,149	26,465	43,338	<b>393,985</b>	
33,615	29,723	29,445	30,151	30,906	<b>280,965</b>	
51,459	48,450	58,185	53,146	54,949	<b>499,544</b>	
(22,750)	(19,410)	9,748	(14,550)	(21,448)	<b>(194,985)</b>	
28,708	29,040	67,934	38,596	33,501	<b>304,559</b>	
(33,828)	(31,566)	(56,083)	(46,887)	(38,174)	<b>(347,037)</b>	
904,522	845,378	886,663	914,744	952,659	<b>8,660,545</b>	
319,636	260,980	323,863	366,546	392,061	<b>3,564,195</b>	
290,339	230,399	291,215	330,635	352,921	<b>3,208,381</b>	
194,579	189,374	141,578	130,177	124,850	<b>1,135,008</b>	
226,474	220,213	183,465	163,507	153,985	<b>1,399,870</b>	
4.8	5.5	5.3	6.3	6.6	—	
10.8	11.8	15.7	12.1	11.8	—	
3.3	3.5	4.7	4.2	4.3	—	
32.1	27.3	32.8	36.1	37.0	—	
0.7	0.8	0.5	0.4	0.4	—	
0.8	1.0	0.6	0.5	0.4	—	
U.S. dollars*1						
39.16	42.90	57.36	264.34	281.89	<b>2.563</b>	
2,031.95	1,612.60	2,038.40	2,314.50	2,470.65	<b>22.46</b>	
45.00	50.00	55.00	70.00	80.00	<b>0.727</b>	
23.0	23.3	19.2	26.5	28.4	<b>28.4</b>	
2014	2015	2016	2017	2018	2018	
25,740	26,508	26,503	27,009	27,416	—	
17,814	17,635	17,716	17,704	17,647	—	
7,926	8,873	8,787	9,305	9,769	—	
53.8	51.9	46.7	48.4	49.9	—	
1,043	1,598	2,230	2,579	3,016	—	

\*7 Effective October 1, 2018, the Company conducted an 1-for-5 common stock consolidation.

Amounts for net income per share and net assets per share have been calculated assuming that the stock consolidation took place on April 1, 2010.

When the interim dividend of ¥8 per share for the fiscal year ended March 31, 2019, is recalculated to take into account the one-for-five reverse stock split, the dividend per share is ¥40. Therefore, the dividend per share for the fiscal year ended March 31, 2019, is equivalent to ¥80, including the interim dividend.

Dividend per share has been adjusted retrospectively to reflect the impact of the reverse stock split for all periods presented.

\*8 The contributions to CO<sub>2</sub> emission reductions refers to CO<sub>2</sub> emission reductions from products shipped in and after fiscal 2010 that were in operation for a year.

Calculated based on the Ministry of Economy, Trade and Industry's Guideline for Quantifying Greenhouse Gas Emission Reduction Contribution.

# Corporate Data

## Company Information (As of March 31, 2019)

Company Name	FUJI ELECTRIC CO., LTD.
Established	August 29, 1923
Head Office	1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-9530, Japan
Head Office Business Address	Gate City Ohsaki, East Tower, 11-2, Osaki 1-chome, Shinagawa-ku, Tokyo 141-0032, Japan
Capital Stock	¥47.6 billion
Employees (Consolidated)	27,416 (Domestic 17,647, Overseas 9,769)
Net Sales (Consolidated)	¥914.9 billion (Year ended March 31, 2019)
Stock Code	6504

## Stock Information (As of March 31, 2019)

Issued and Outstanding Shares 149,296,991      Number of Shareholders 36,564

### Major Shareholders

Shareholders' names	Number of shares (1,000s)	Voting rights (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	14,072	9.85
The Master Trust Bank of Japan, Ltd. (Trust Account)	13,449	9.42
FUJITSU LIMITED	4,066	2.85
Asahi Mutual Life Insurance Company	3,955	2.77
FANUC CORPORATION	2,684	1.88
Japan Trustee Services Bank, Ltd. (Trust Account 5)	2,545	1.78
Japan Trustee Services Bank, Ltd. (Trust Account 7)	2,414	1.69
Mizuho Bank, Ltd.	2,250	1.58
FURUKAWA CO., LTD.	2,205	1.54
JP MORGAN CHASE BANK 385151	1,944	1.36

Notes: 1. Treasury stock of 6,451,315 shares is excluded from the above list of top 10 shareholders.

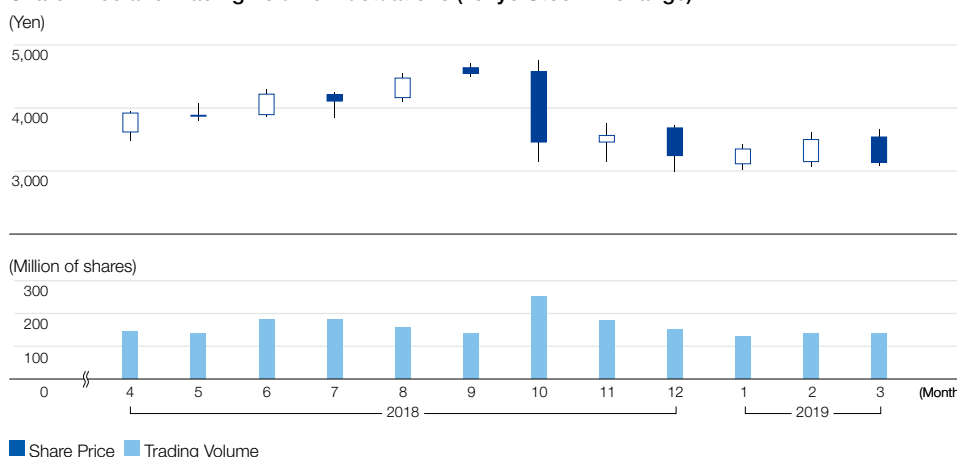
2. The ratio of shareholding is calculated by deducting the number of treasury stock from the total number of shares outstanding based on the provisions of the Ordinance for Enforcement of the Companies Act.

### Share Distribution by Shareholder Type

Type	Number of shareholders	Number of shares	Holding (%)
Financial institutions / securities firms	156	64,808,745	43.41
Other domestic corporations	466	14,100,181	9.45
Foreign corporations	627	46,271,318	30.99
Individuals and others	35,315	24,116,747	16.15
Total	36,564	149,296,991	100.00

Note: "Individuals and others" includes treasury stock.

### Share Price and Trading Volume Fluctuations (Tokyo Stock Exchange)



Note: Effective October 1, 2018, the Company conducted a one-for-five reverse stock split pertaining to shares of common stock. Share price and trading figures have been restated to reflect this stock split.

# History

## Company

**1923**  
Fuji Electric Manufacturing Co., Ltd., established  
Established as a capital and technology alliance  
between Japan Furukawa Electric Co., Ltd.,  
and German Siemens AG. The result was a  
company with characteristics inherited from  
industry in both countries



**1925**  
Began operation of the  
Kawasaki Factory

**1942**  
Began operation of the Matsumoto Factory

**1943**  
Began operation of the  
Fukiage and Toyoda factories



Company emblem,  
"FS" mark

**1944**  
Began operation of the Mie Factory

**1961**  
Began operation of the Chiba Factory

**1968**  
Merged with Kawasaki Denki Seizo Co., Ltd.,  
and commenced operations at the Kobe and  
Suzuka factories

**1973**  
Began operation of the Otawara Factory

**1984**  
Changed company name to Fuji Electric Co., Ltd.

**1991**  
Began operation of the Yamanashi Factory

**2002**  
Introduced Company  
symbol mark



Symbol mark

**2003**  
Changed company name to Fuji Electric Holdings Co.,  
Ltd., owing to shift to pure holding company system

**2008**  
Fuji Electric FA Components & Systems Co., Ltd.,  
merged operations with Schneider Electric  
Japan Ltd.  
(Power distribution and control equipment joint  
venture)

**2011**  
Changed company name to Fuji Electric Co., Ltd.

**2014**  
Created new corporate brand emblem for products



Emblem

## 1920

**1924**  
Began manufacturing electric motors

**1925**  
Began transformer production

**1927**  
Began electric fan production

**1936**  
Built first hydraulic turbine,  
4,850 HP Francis Turbine

**1937**  
Began watt-hour meter production



Francis Turbine

## 1950

**1954**  
Began ultra-compact magnetic  
switch production

**1959**  
Began manufacturing silicon diodes

**1969**  
Began production of vending machines

**1971**  
Began manufacturing hybrid ICs

**1976**  
Began manufacturing  
general-purpose inverters



Ultra-compact magnetic  
switch production



The first  
vending machines



General-purpose inverters

## 1980

**1985**  
Released the programmable  
logic controller "MICREX-F Series"

**1987**  
Developed IGBT module

**1991**  
Developed 2.5-inch magnetic disks

**1996**  
Won order for IGBT main conversion  
devices used in electric railways  
(The world's first large-capacity flat IGBT)

**1998**  
Delivered 100 kW phosphoric acid fuel cell



Flat IGBT

## 2010

**2010**  
Developed next-generation  
SiC module power semiconductor

**2012**  
Developed inverter equipped with  
next-generation power semiconductor  
SiC-SBD, a first in Japan

**2014**  
Launched power electronics equipped  
with SiC power semiconductors

**2015**  
Launched steam-generation heat pumps

**2018**  
Began manufacturing exhaust  
gas cleaning systems for ships



SiC module

Inverters equipped with  
power semiconductor  
SiC-SBD



Power conditioning  
systems for high-capacity  
mega solar use



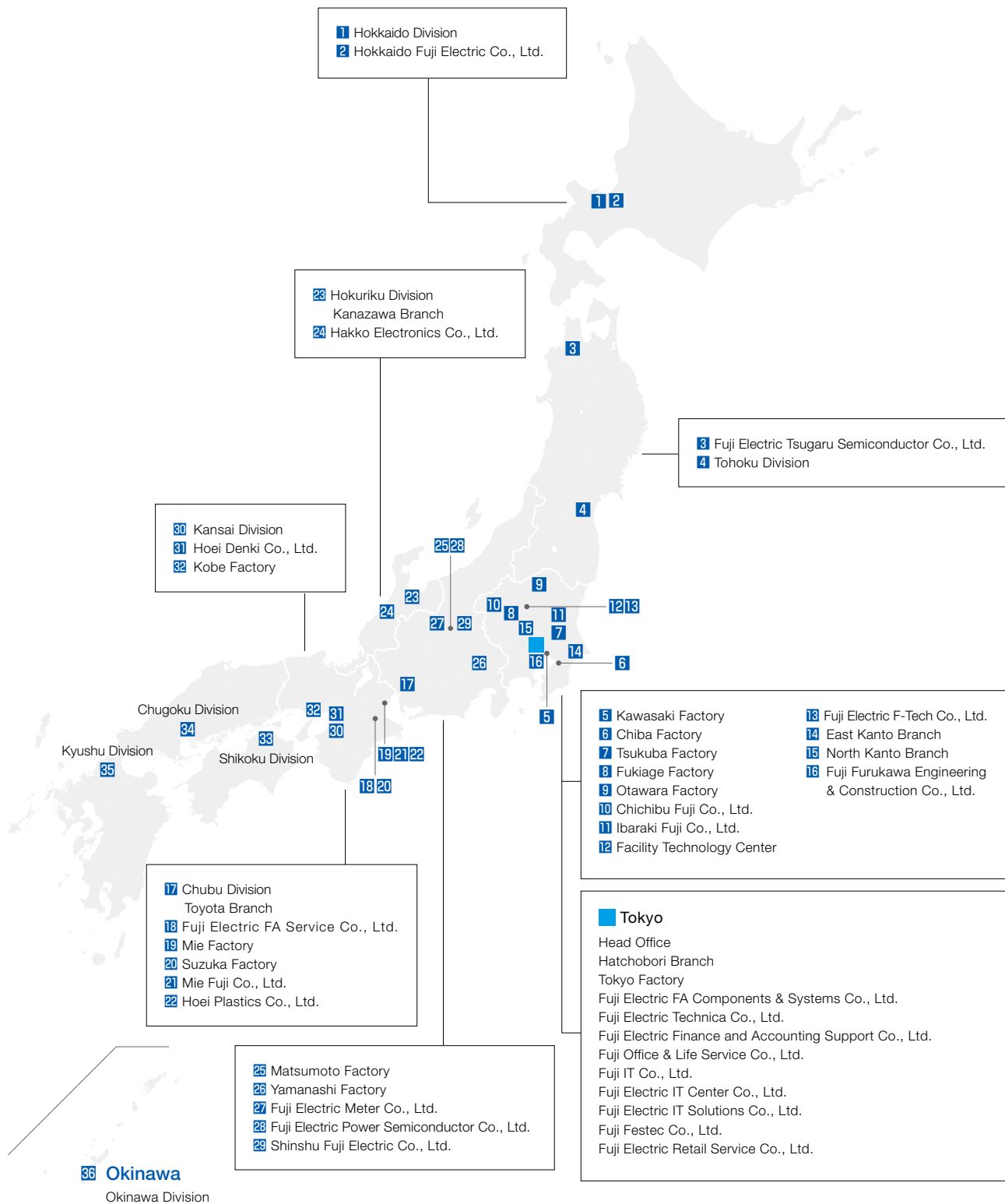
Exhaust gas  
cleaning systems  
for ships



# Corporate Data

## Global Network

(As of July 1, 2019)

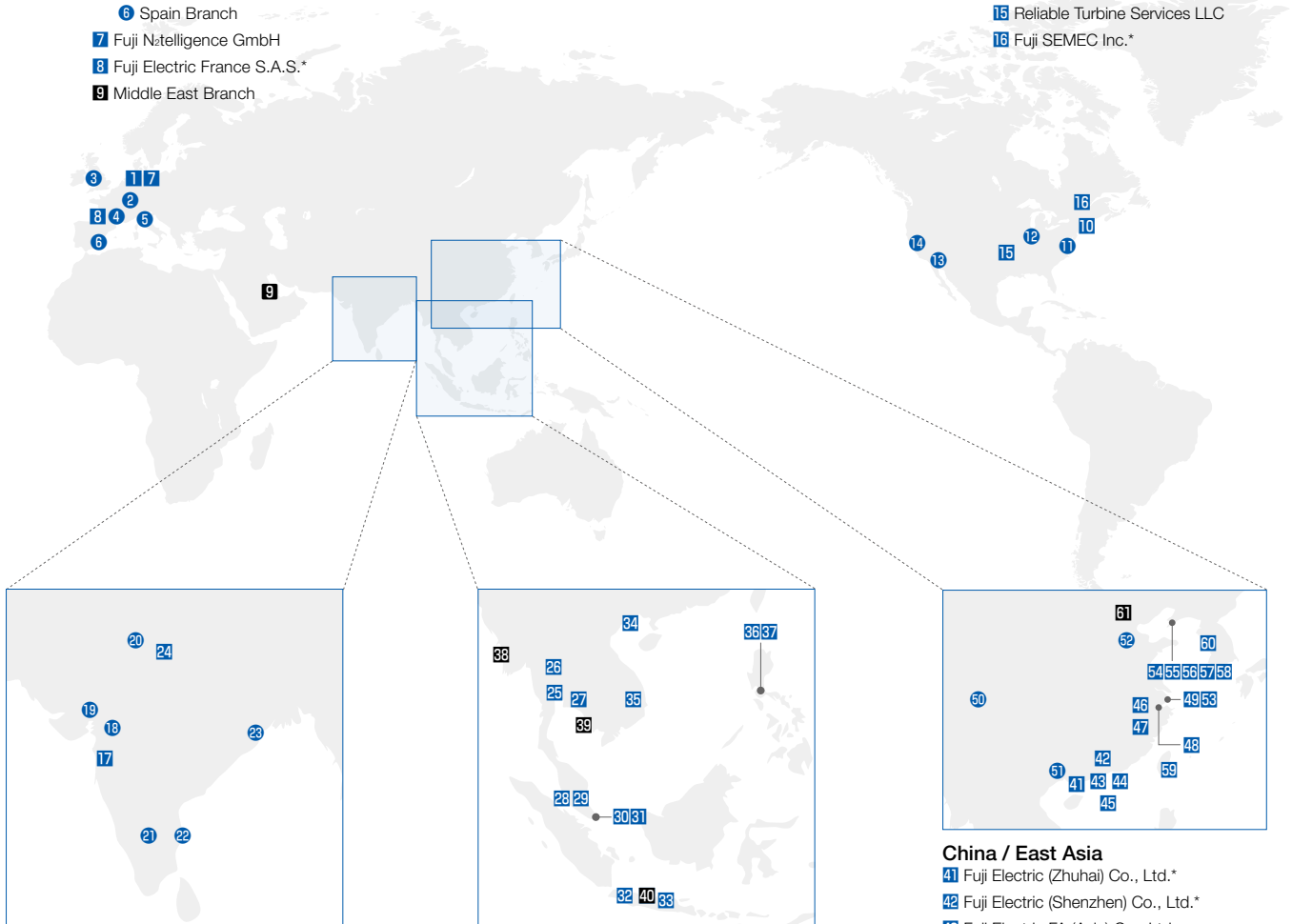


## Europe

- 1 Fuji Electric Europe GmbH
- 2 Switzerland Branch
- 3 U.K. Branch
- 4 France Branch
- 5 Italy Branch
- 6 Spain Branch
- 7 Fuji Ntelligence GmbH
- 8 Fuji Electric France S.A.S.\*
- 9 Middle East Branch

## Americas

- 10 Fuji Electric Corp. of America
- 11 Virginia Factory\*
- 12 Chicago Branch
- 13 Santa Ana Branch
- 14 Fremont Branch
- 15 Reliable Turbine Services LLC
- 16 Fuji SEMEC Inc.\*



### South Asia

- 17 Fuji Electric India Private Ltd.
- 18 India Factory\*
- 19 Ahmedabad Branch
- 20 Delhi Branch
- 21 Bangalore Branch
- 22 Chennai Branch
- 23 Kolkata Branch
- 24 Fuji Gemco Private Limited\*

### Southeast Asia

- 25 Fuji Electric (Thailand) Co., Ltd.
- 26 Fuji Electric Manufacturing (Thailand) Co., Ltd.\*
- 27 Fuji Tusco Co., Ltd.\*
- 28 Fuji Electric (Malaysia) Sdn. Bhd.\*
- 29 Fuji Electric Sales Malaysia Sdn. Bhd.
- 30 Fuji Electric Asia Pacific Pte. Ltd.
- 31 Fuji SMBE Pte. Ltd.\*
- 32 PT Fuji Electric Indonesia
- 33 P.T. Fuji Metec Semarang\*
- 34 Fuji Electric Vietnam Co., Ltd.
- 35 Fuji CAC Joint Stock Company
- 36 Fuji Electric Philippines, Inc.\*
- 37 Fuji Electric Sales Philippines Inc.
- 38 Fuji Electric Co., Ltd. (Myanmar Branch Office)
- 39 Rep. Office of Fuji Electric Co., Ltd. (in Cambodia)
- 40 Fuji Electric Co., Ltd. Construction Representative Office Indonesia

### China / East Asia

- 41 Fuji Electric (Zhuhai) Co., Ltd.\*
- 42 Fuji Electric (Shenzhen) Co., Ltd.\*
- 43 Fuji Electric FA (Asia) Co., Ltd.
- 44 Fuji Electric Hong Kong Co., Ltd.
- 45 Hwei Hong Kong Co., Ltd.
- 46 Fuji Electric (Changshu) Co., Ltd.\*
- 47 Wuxi Fuji Electric FA Co., Ltd.\*
- 48 Fuji Electric (Hangzhou) Software Co., Ltd.
- 49 Fuji Electric (China) Co., Ltd.
- 50 West China Branch
- 51 South China Branch
- 52 North China Branch
- 53 Shanghai Electric Fuji Electric Power Technology (Wuxi) Co., Ltd.\*
- 54 Fuji Electric Dalian Co., Ltd.\*
- 55 Fuji Electric Motor (Dalian) Co., Ltd.\*
- 56 Dalian Fuji Bingshan Vending Machine Co., Ltd.\*
- 57 Dalian Fuji Bingshan Control Systems Co., Ltd.
- 58 Dalian Fuji Bingshan Vending Machine Sales Co., Ltd.
- 59 Fuji Electric Taiwan Co., Ltd.
- 60 Fuji Electric Korea Co., Ltd.
- 61 Beijing Rep. Office

● Affiliated companies

■ Overseas offices

\* Having manufacturing capabilities



**ECOLOGY**  
Fuji Electric

This mark symbolizes  
the commitment of Fuji Electric  
to environmental protection.

## Care for the Environment .....



**FE** Fuji Electric Co., Ltd.

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