

# Power Generation

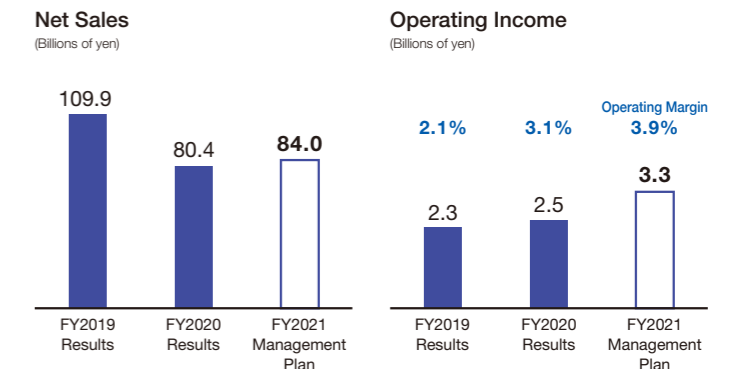
We will expedite the transformation of our business portfolio to increase orders in renewable energy and distributed power sources.

Tadao Horie

Executive Officer  
Corporate General Manager, Power Generation Business Group



<b>Business Areas</b>	<b>[Renewable and new energy]</b> Geothermal power, Hydro power, Solar power, Wind power, Fuel cells <b>[Thermal power]</b> <b>[Nuclear power-related equipment]</b>
<b>Supplied to</b>	Japanese and overseas power generation companies
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Engineering capabilities across the whole plant</li> <li>• One-stop proposal capabilities in geothermal power</li> <li>• Industry leading delivery track record</li> <li>• Extensive delivery track record in hydro power</li> <li>• Power storage control technologies and economic efficiency in solar and wind power</li> </ul>



## Awareness of Market Needs and Business Opportunities

The market for renewable energy sources that do not emit greenhouse gases is growing as decarbonization becomes a global trend. In solar power generation, this has helped revitalize projects that have been certified under Japan's Feed-In Tariff (FIT) Scheme but are not yet operational. In wind power generation, meanwhile, more and more companies are participating in both onshore and offshore projects in Japan, stimulating new project concepts. In geothermal power generation, projects are under development in Southeast Asia, which has abundant geothermal resources, and plans to utilize

small-scale heat sources are earmarked for Japan. Meanwhile, there is growing demand for hydro power, which is a stable source of electricity. In Japan, the volume of hydro power generated is increasing as aging power generation facilities get replaced and output rises. And in nuclear power generation, there is increasing demand for decommissioning of facilities and treatment of waste.

In the after-sales business, there is a growing need to enhance operability and capacity utilization ratio to cope with changes in the electricity supply-demand balance.

In fiscal 2020, we received an order for a complete set of power generation equipment for the Tauhara Geothermal Power Station in New Zealand. With an output of 152 MW, it will be the world's largest single -geothermal power unit.

In fiscal 2021, we will expand sales of power generation equipment for small-scale heat sources of 5 MW or less in Japan, while overseas we will improve our market presence and expedite activities to win orders by strengthening relationships with local companies and reinforcing our supply chain.

### ► Hydro power

Deploying our strength in design technology for producing highly efficient turbines according to installation location, we provide hydro power generation systems that combine generators, control devices, and auxiliary equipment.

In fiscal 2020, we continued attracting high-level orders, as we did in the previous fiscal year. Our order backlog at the beginning of fiscal 2021 had grown around 2.7-fold for the past 3 years.

In fiscal 2021, to address strong demand, we will reinforce our response capability at customer sites and work to expand applications of our differentiated products, including hybrid servo systems that reduce risks to the water environment.

promoting onshore and onsite projects that bring together all functions in each customer's region, from sales to procurement, installation, and after-sales service.

In fiscal 2020, we rolled out technical services that utilize both remote and real (on-site) responses, resulting in higher sales in our after-sales business even during the COVID-19 pandemic.

In fiscal 2021, we will strive to expand our after-sales business while building a foundation to develop higher-value-added solutions, including changing fuel mixes and operational procedures to reduce greenhouse gas emissions.

## Contributing to nuclear decommissioning and waste treatment

Since participating in the construction of Japan's first commercial nuclear power plant, we have been involved in the entire lifecycle of nuclear facilities, from design and production of fuel fabrication facilities to decommissioning. In the process, we have accumulated significant technologies and experience.

Amid progressive efforts to improve the safety of nuclear-related facilities, we will contribute to safe and secure decommissioning and waste treatment by utilizing our strengths in remote handling (including nuclear fuel removal and storage), radiation measurement, radioactive waste cutting and solidification, and other technologies.

## Fiscal 2020 Results and Fiscal 2021 Business Plan

In fiscal 2020, sales in this segment declined ¥29.5 billion year on year, to ¥80.4 billion, due to rebound from large-scale thermal power and solar power projects recorded in the previous fiscal year. Operating income edged up ¥0.2 billion, to ¥2.5 billion, reflecting discrepancies between projects.

In fiscal 2021, we look forward to increased sales of renewable energy, including geothermal power, as well as nuclear power-related equipment and after-sales business.

For the year, we forecast sales of ¥84.0 billion, up ¥3.6 billion year on year, and operating income of ¥3.3 billion, up ¥0.8 billion.

Going forward, we will focus on expanding sales in the renewable energy field and after-sales business. Our aim is to continue pursuing year-on-year increases in the ratio of sales in the carbon-free field and after-sales business to net sales.

## Priority Measures

In addition to increasing orders for renewable energy and expanding our after-sales business, we are promoting safe decommissioning and waste treatment initiatives for nuclear-related equipment.

### Expanding orders for renewable energy

#### ► Solar and wind power

Our strengths lie in our high-efficiency power conditioning systems equipped with our own power semiconductors, as well as solutions that use storage batteries to contribute to power system stabilization and peak shifts. Leveraging these strengths, we are promoting increased orders.

We are engaged in a large-scale self-consumption wind power generation facility under an EPC contract in

Japan, which made good progress in fiscal 2020. We also received new orders for electrical equipment for mega solar and offshore wind power generation facilities.

In fiscal 2021, we will continue striving to increase orders for solar and wind power generation, demand for which is growing in Japan and overseas, by leveraging our electric power stabilization solutions and other differentiated products.

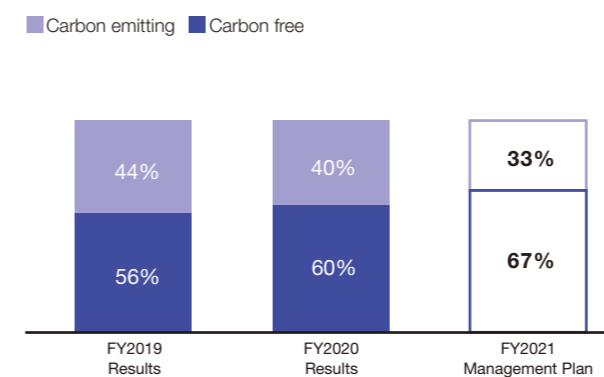
#### ► Geothermal power

In geothermal power, where we have the largest market share in the industry, we are expanding sales in Japan, Asia, Africa and other regions with geothermal resources, taking advantage of our one-stop proposal capabilities backed by our extensive track record.

## Expanding our after-sales business

In maintenance and replacement services, we will continue

### Sales Ratio by Carbon Free / Carbon Emitting



### Sales Ratio by Service / New Installations

