

FY2023 Medium-Term Management Plan

Power Generation Business

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Tadao Horie

Executive Officer

Corporate General Manager, Power Generation Business Group

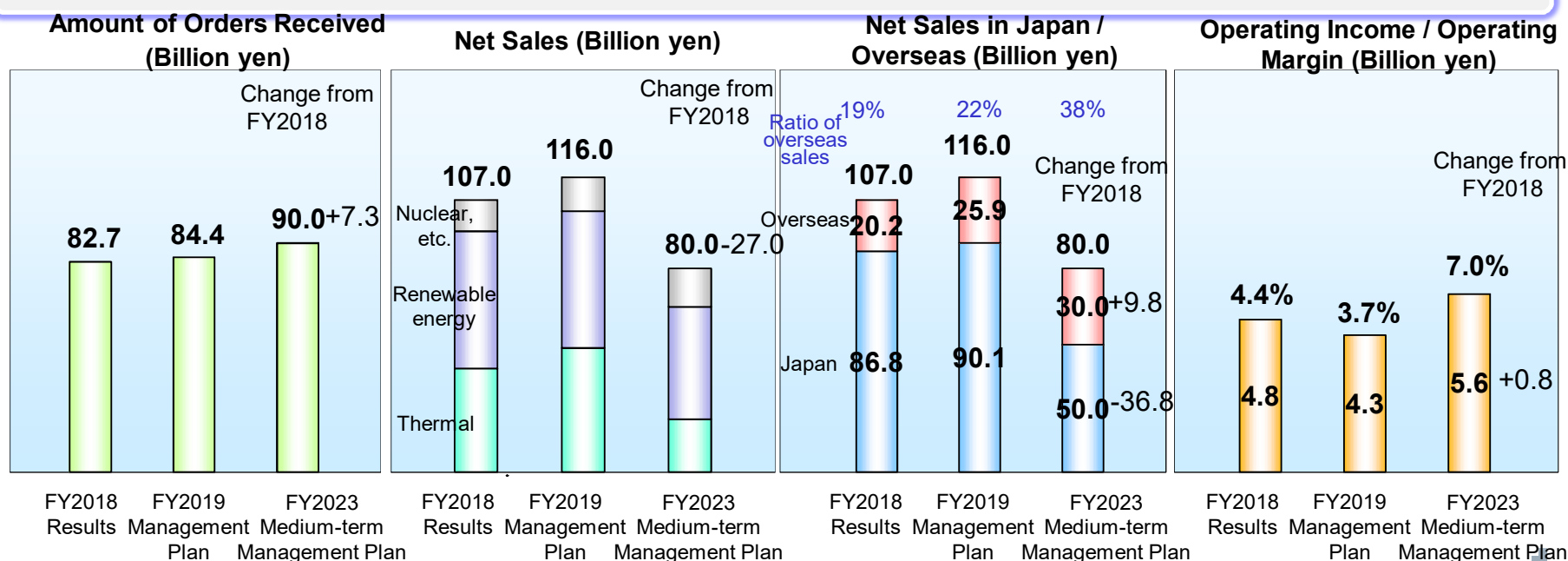
Fuji Electric Co., Ltd.

Business Policy

Transform business portfolio in response to market environment change, and improve earning power

Priority Measures

- Specialize on renewable energy and distributed power sources
- Enhance after sales businesses

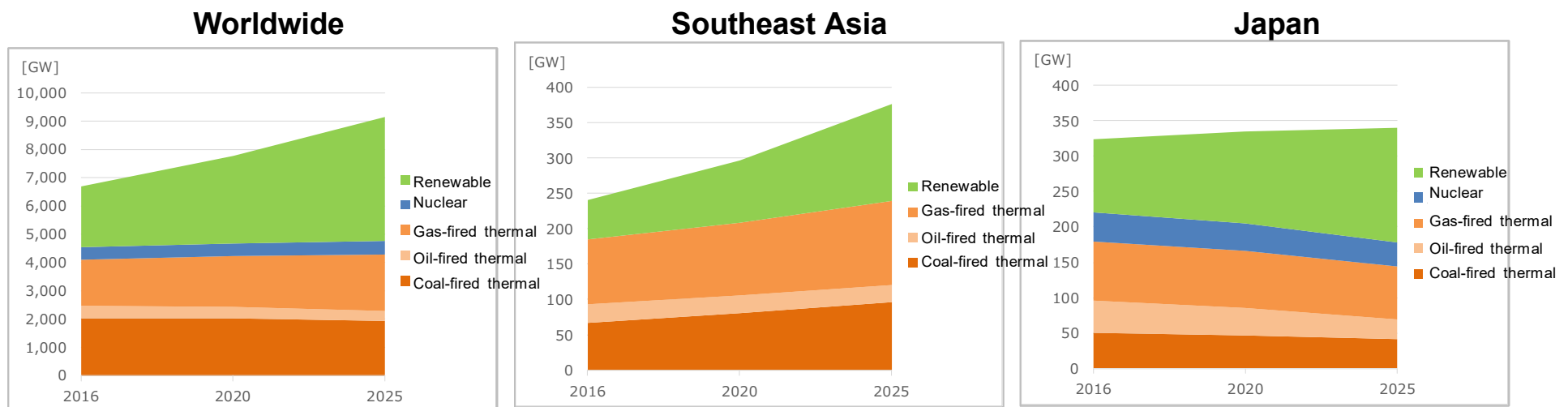


Power Generation's Market Environment Changes (CY2016 → CY2025)

Accelerated spread of distributed power sources centered on renewable energy

- ✓ Worldwide: Rapid growth in renewable energy
- ✓ Southeast Asia: Growth in both renewable energy and thermal power
- ✓ Japan: Growth in renewable energy despite flat power generation capacity

Power Generation Capacity Projections



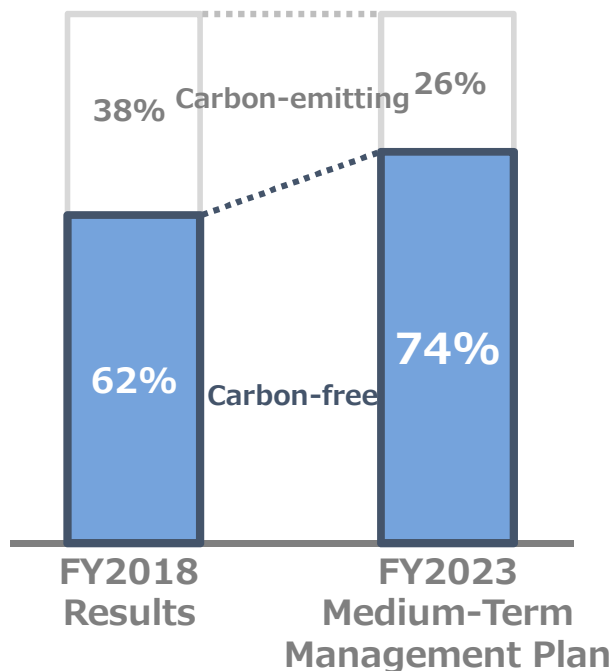
Source: World Energy Outlook 2018 and Sustainable Development Scenarios

Business Portfolio Changes (FY2018 → FY2023)

Shift to carbon-free businesses
(renewable energy and distributed power sources)
Shift to after sales businesses

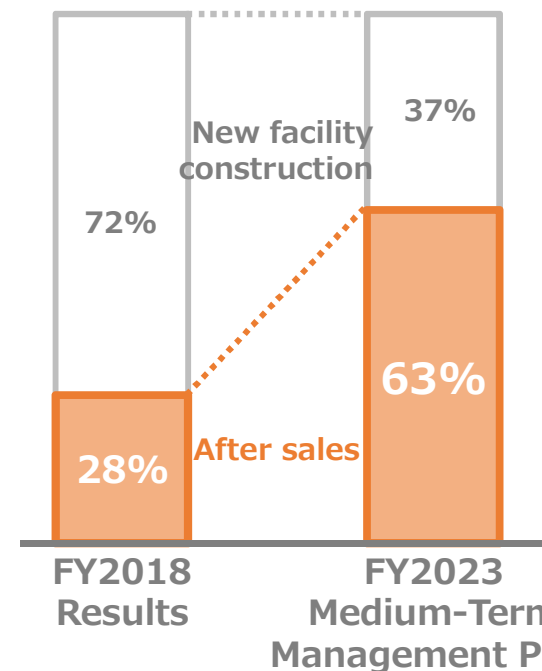
Sales Ratio by Market Need Category (Carbon-Free / Carbon-Emitting)

Increase sales ratio in carbon-free systems



Sales Ratio by Business Category (New Facility Construction / After Sales)

Increase sales ratio in after sales



Specialize Renewable Energy and Distributed Power Sources

Priority Measure

- Survive in market by introducing a high-valued-added solutions to the small to medium-sized power plants businesses (especially renewable energy) with the market FE has a presence in respond to the growing demand for distributed power sources

Fuji Electric's Strengths: Small to Medium-Sized Power Plants

- High-quality project managers
- Capability to put all requirements together for plants and experiences
- Unique products in distributed power source (renewable energy) field

Biomass

No. 1 domestic share (52%)
(Order volumes after FY2012 introduction of FIT scheme)

Hydro Power

No. 3 domestic share (22%)
(Share of 1,957 currently installed units)

Geothermal Power

No. 1 global share (36%)
(Order volumes since CY2000)

Fuel Cells

No. 1 domestic share (67 units)
(Shipments of industrial fuel cells in Japan)

Solar Power (industrial PCSs with output of 500 kW or more)

No. 2 domestic share (11%)
(Order volumes after CY2012 introduction of FIT scheme)



High-Value-Added Solutions

- Power grid connection
- Power quality stabilization and storage
- Heat and power supply
- Remote monitoring and predictive maintenance
- Plant lifecycle value maximization

Geothermal Power

- Introduce new small-capacity “Packaged ORCs**”
- Expand sales by addressing specific needs related to small-scale systems compatible with FIT scheme (quick commencement of generation, simplified on-site installation procedures, etc.)

*ORC : Organic Rankine Cycle

Target market: All geothermal power projects compatible with FIT scheme



Geothermal power plant (flash)



Geothermal power plant (ORC)



Package-type ORC

Wind Power (with power storage systems)

- Optimize and differentiate overall operations by plant engineering (encompassing everything from planning and design to grid connection) with technologies for stabilizing power quality and storing power and expand related orders

Target markets: Regions requiring wind power systems to be equipped with power storage systems



Nishime wind power plant
(288 kWh lead-acid storage battery,
22 kWh LiB)



Ogimi wind power plant
verification research facilities
(4,500 kWh lead-acid storage battery)

Biomass

- Expand operations by building upon relations with strategic partners based on wide experiences for small- to medium-capacity steam turbines
- Continue capitalizing on projects compatible with FIT scheme

Target markets: Biomass projects compatible with FIT scheme



Biomass power plant



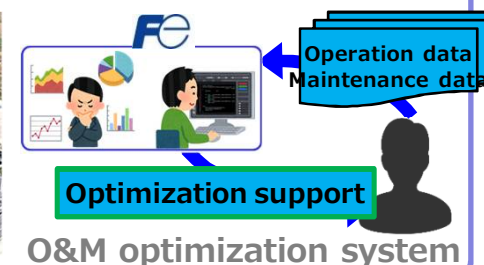
Steam turbine and generator

Geothermal Power

- Deepen collaborative relationships with local partners in countries of operation and enhance ability to carry out EPC projects
- Step up efforts to capitalize on EPC projects that have emerged
- Provide more values to customers and expand business domain through O&M optimization (remote monitoring, predictive maintenance, etc.) utilizing IoT and AI technologies

Target markets: All countries with geothermal power resources

Geothermal power plant (flash)



Solar Power

- Advance sales activities that utilize strengths as a plant manufacturer from project arrangement/planning stage
- Improve values for customers through overall optimization
- Increase orders in growing overseas markets

Target markets: Southeast Asia



Mega solar system



PCS Storage battery

Biomass

- Expand orders through collaboration with strategic partners founded on wide experiences in Japan
- Grow orders in market created by shift from coal to biomass

Target markets: Southeast Asia



Biomass power plant



Steam turbine and generator

Enhancement of After Sales Businesses (Thermal and Geothermal Power)

Priority Measures

- **Expansion of proposal-based upgrade services**
 - Labor-saving, lifespan extension, efficiency improvement, and operating ratio improvement
 - Swift recovery after incidents (short delivery times)
- **On-shore and on-site provision of services**
 - Cultivation and reallocation of human resources that can excel overseas

Priority targets: Services for previously delivered plants
Target markets: Taiwan, Indonesia, Vietnam, and the Philippines



Fuji Electric's Strengths

Wide insight and experiences as a turbine generator manufacturer

- Familiarity with design, performance, structure, and material factors
- Manufacturing capabilities
- High quality and reliability



Know how of After Sales Operating Companies

Effective use of RTS's know how

- On-site repair capabilities
- Quick responses and services



Enhancement of After Sales Businesses (Hydro Power and Nuclear Power-Related Equipment)

Hydro Power

- Differentiate operations through high-efficiency proposals utilizing wide product lineup
- Maintain 30% share of orders by addressing brisk scrap and build demand for FIT scheme-applicable projects



Hydro power plant



Generator



Turbine runner

Domestic Hydro Power Plant Data
Total: 1,957 plants / capacity of 22.6 GW
Fuji Electric: 431 plants / capacity of 4.8 GW
(Market Share) (22%) (21%)

S&B applied: Approx. 500 plants (25%)

Nuclear Power-Related Equipment

- Combine strengths of Fuji Electric with its technologies backed by its domestic and overseas experiences to contribute to safety in decommissioning equipment and waste treatment



Fuel intake/extraction equipment

Fuji Electric's Strengths

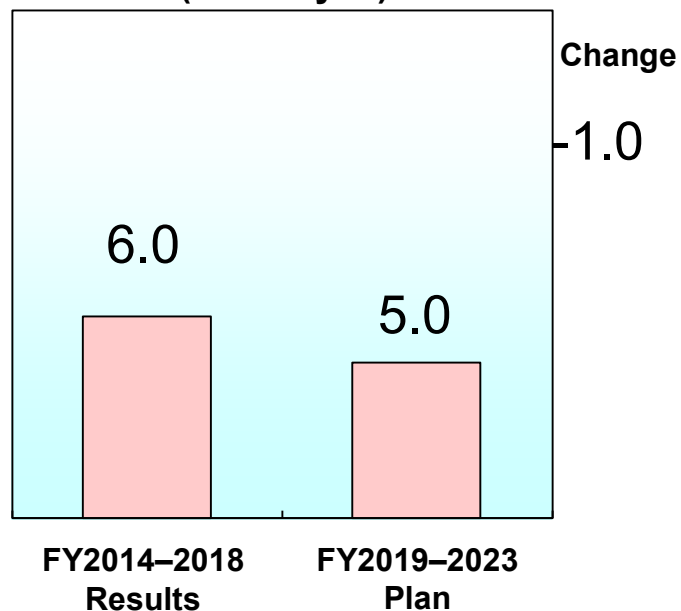
“Remote service and transportation technologies”,
“plant engineering technologies”, and “waste
evaluation technologies” developed at R&D
facilities



Introduction of Partner's Technologies with Wide Experiences

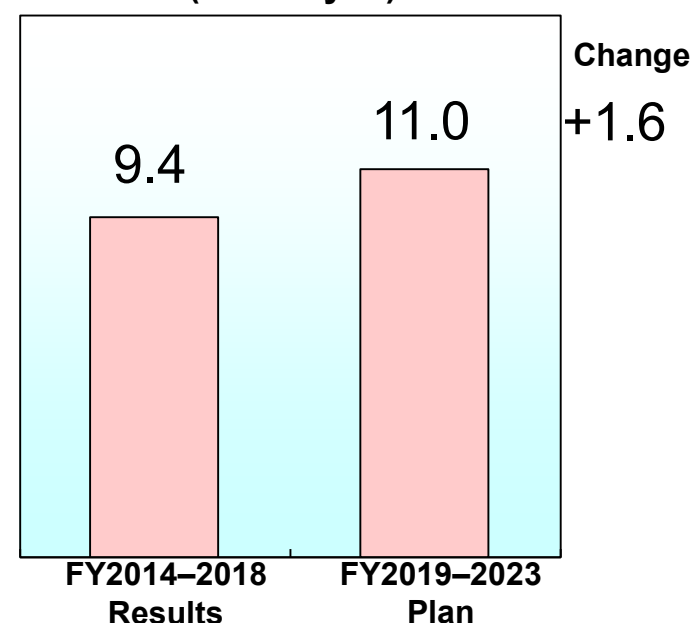
“Decontamination”,
“disconnection”,
“solidification”, etc.

**Capital Investment
(Billion yen)**



- Upgrades and rationalization
- Enhancement of after sales businesses
 - Expansion of proposal-based upgrade services
 - On-shore and on-site provision of services
- New geothermal power products

**Research and Development
(Billion yen)**



- New products for promoting carbon-free operation
 - Grid stabilization systems
- After sales offerings
 - Geothermal power O&M services
 - Nuclear waste treatment

Note: R&D expenditure figures above represent expenditures that have been allocated to segments based on theme and may therefore differ from figures contained in consolidated financial reports.

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