

# J-POWER GROUP INTEGRATED REPORT 2024





Financial Information

- Securities Report
- Financial Statements
- Earnings Results Presentation

Non-financial Information (ESG)

- Basic Policy on Sustainability
- Basic Policy on Corporate Governance
- Compliance Action Guidelines
- J-POWER Group Environmental Basic Policy
- J-POWER Group Basic Policy on Human Rights
- Corporate Governance Report
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Purpose

The Corporate Philosophy of the J-POWER Group states

Our Mission

We will meet people’s needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world.

Our Credo

- |                              |  |
|------------------------------|--|
| Integrity and pride          | We value integrity and pride, which drive everything we do.  |
| Harmony with the environment | We pursue harmony with the environment, and thrive in the trust of communities where we live and work. |
| Growth                       | We regard profits as the source of our growth, and share the fruits with the society.                  |
| Continuing to improve        | We refine our knowledge constantly, to be the pioneering leader in technologies and wisdom.            |
| Dare to create               | We unite diverse personalities and passions as one, and dare to create a better tomorrow.              |

Mission

Balancing a Stable Energy Supply with Response to Climate Change

By becoming carbon neutral while preserving energy supplies through 2050, the J-POWER Group will contribute to the sustainable growth of humanity living on the Earth and their civilization.

Strategy

We have identified five material issues from social issues and other challenges. Under the J-POWER “BLUE MISSION 2050,” our long-term strategy for achieving our material issues, we aim to balance a sustained increase in corporate value with the solving of social issues through our business activities.



Action

We will develop CO<sub>2</sub>-free energy, such as renewable energy and nuclear power, as a priority. We will also ensure a stable energy supply and a shift toward carbon neutrality by enhancing the power network and promoting the transition of thermal power operations.





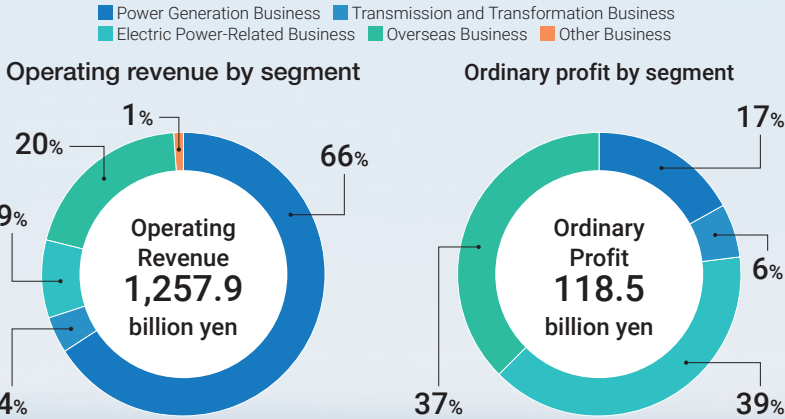
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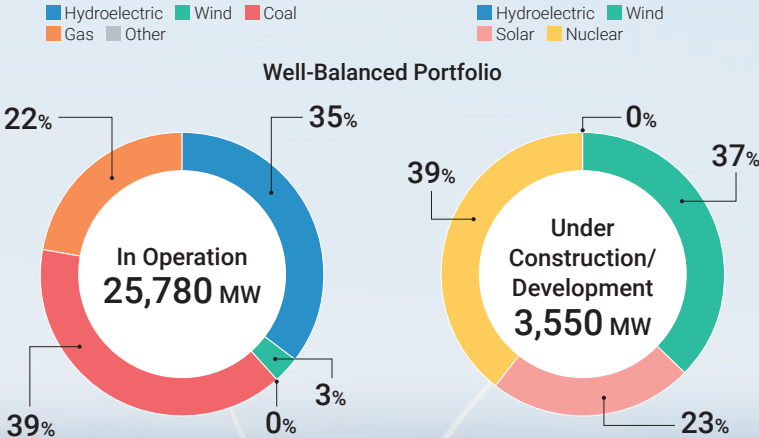
# At a Glance

(As of March 31, 2024)

## Business Overview by Segment



## Global Facility Output (Owned capacity basis)



## Equity ratio

Stable financial base

35%

## Comprehensive front-runner in renewable energies

Share of domestic output capacity

No. 2 in hydroelectric No. 2 in wind

## Electric power network that connects all of Japan

Transmission line distance Substation, frequency converter station, AC/DC converter station

Approx. 2,400 km 9 locations

## Overseas power generation business

7 countries/regions (44 projects)  
(Under construction/development and in operation)

## Overseas technical consulting

Over 60 years of experience

64 countries/regions (376 projects)

## Electricity sales volume

80.0 billion kWh

Domestic 60.0 billion kWh\*, Overseas 20.0 billion kWh

\*Equivalent to approx. 7% of domestic demand  
\*Includes sales of electricity procured from the wholesale electricity trading market, etc.



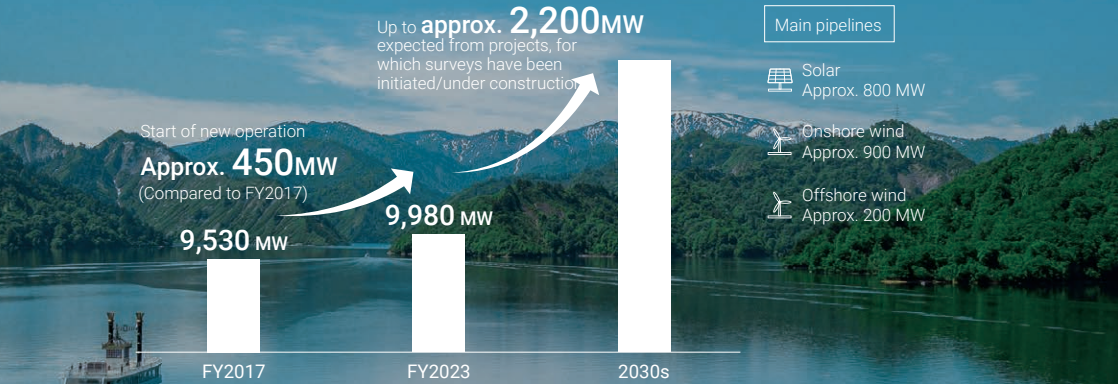
## At a Glance

### Comprehensive Front-runner in Renewable Energies

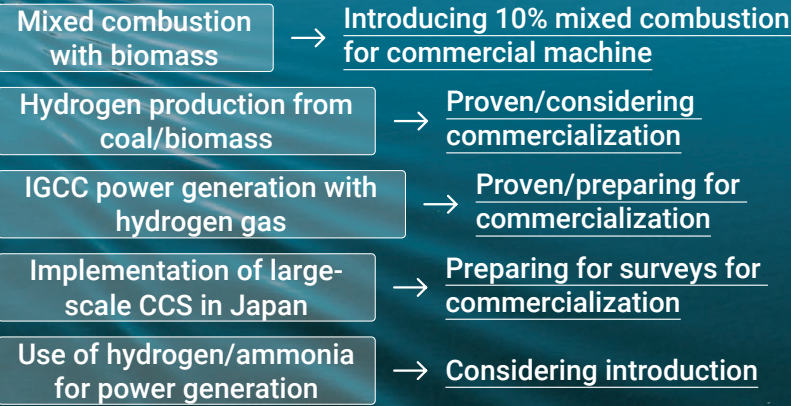
#### Comprehensive technical capabilities built on over 70 years in business

Research, project development, siting, construction, operation, maintenance, power sales, and portfolio management

#### A solid track record in domestic and overseas development



### Technology for Thermal Power Transition



## Global Business Foundation

### Stable business operations

- Stable revenue by signing long-term PPAs and utilization of market
- Overseas business segment as a percentage of consolidated ordinary profit is 37.0% (FY2023 results)
- Diverse business models (in-house development, collaboration with partners, consulting, O&M service, etc.)

### Acquisition of developer's profits and expansion of the development of new renewable energies





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Editorial Policy

The J-POWER Group began releasing integrated reports in fiscal 2019. Through these reports, we work to present financial and non-financial information in a systematic and highly readable format aimed at explaining how we will achieve the value we create to society and enhance our corporate value.

Reporting Period

April 1, 2023 to March 31, 2024  
(also contains reporting on important matters after this period)

Publication of Previous Report

August 31, 2023

Guidelines Referenced, etc.

- GRI Standards (Global Reporting Initiative)
- International <IR> Framework (IFRS Foundation)
- SASB Standards (IFRS Foundation)
- Guidance for Collaborative Value Creation (Ministry of Economy, Trade and Industry)

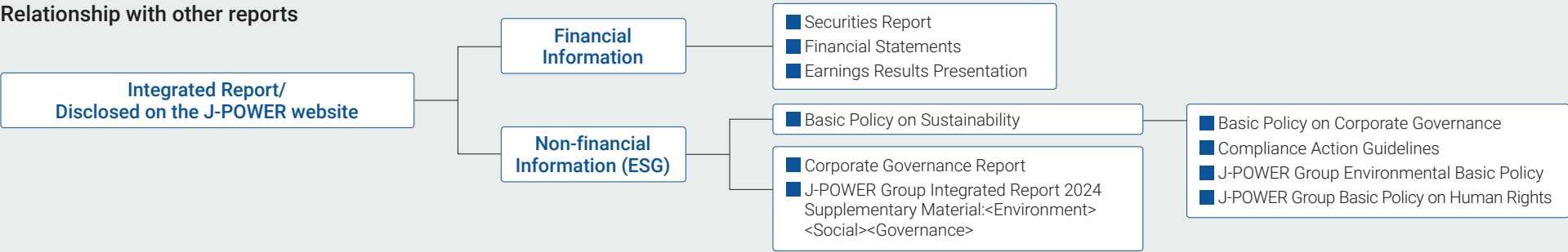
Forward-Looking Statements

Statements in this integrated report, other than those of historical fact, are forward-looking statements about the future performance of the J-POWER Group that are based on management's assumptions and beliefs in light of information currently available, and involve both known and unknown risks and other uncertainties. Actual events and results may differ materially from those anticipated in these statements.

Presentation of Monetary Amounts and Other Figures

For monetary amounts and electric power sales volumes, figures less than the indicated unit are rounded down. For other amounts, figures less than the indicated unit are rounded to the nearest unit unless otherwise mentioned. Therefore, the sums may not total 100% in the composition ratio.

Relationship with other reports





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# History of Value Creation of J-POWER Group

- Under our Corporate Philosophy of “We will meet people’s needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world,” the J-POWER Group has globally operated the business to meet the needs of the times over the past 70 years.
- Going forward, we will strive to improve sustainable corporate value while meeting demands of global society for balancing a stable energy supply with the response to climate change.

## From post-war power shortage to period of rapid economic growth

### Construction of large-scale hydroelectric and domestic coal-fired power plants

The J-POWER Group developed massive dams, and hydroelectric power plants to address Japan’s postwar electricity shortage. Our domestic coal-fired power plants also supported the ensuing period of fast economic growth.

### Development of pumped storage hydropower plants and cross-regional interconnecting lines

To fulfill peak demand, we continued construction of large-scale pumped storage hydropower plants, and to connect the different regions, we established interconnection lines.

### Commencement of overseas consulting business

Overseas, we have contributed to the development of each country and building the relationships of trust between each country and Japan through technical supports and consulting services for power plant and transmission line construction.

## The oil crisis and a growing interest in environmental issues

### Diversification of power sources through development of overseas coal-fired power plants

Following two oil crises, we responded to the growing need for stable resource procurement and power source diversification by building Japan’s first coal-fired power plant fueled by overseas coal and acquiring stakes in overseas coal mines.

### Development of wind power generation begins

J-POWER became one of the first in Japan to operate a large-scale commercial wind farm in 2000, expanding the options for decarbonization at a time of rising concern over global environmental issues.

## Global expansion and responding to issues of climate change

### Global expansion

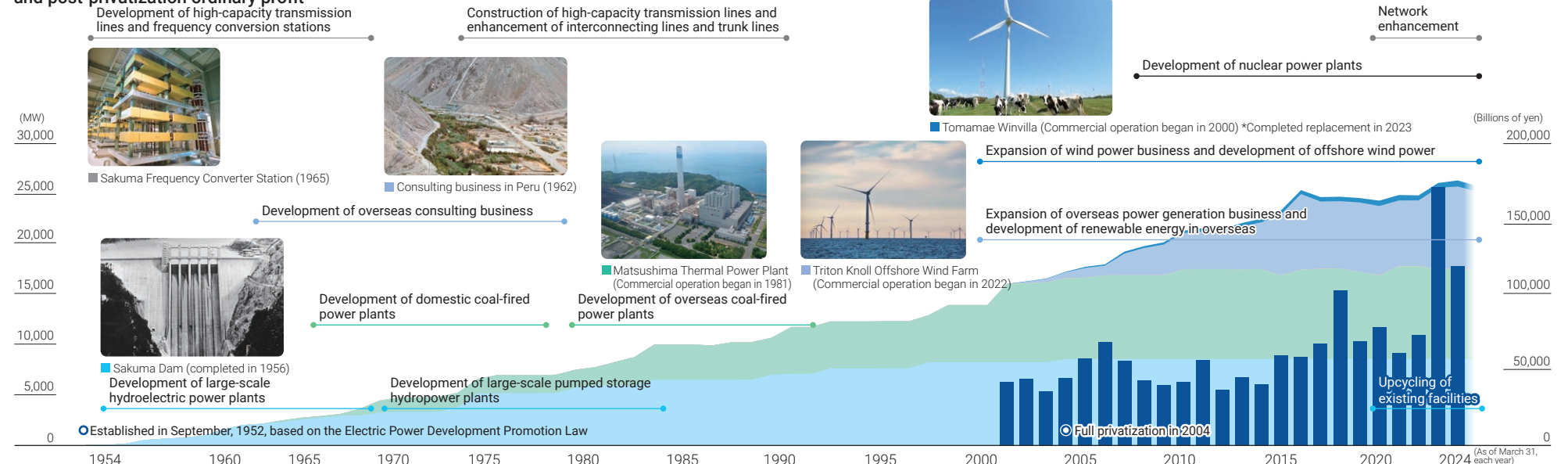
We began expanding our power generation business after being fully privatized in 2004, focusing primarily on Asia and the United States, to achieve profitable growth.

### Provision of a stable supply of energy while addressing climate change

We are aiming for goals such as further developing renewable energy in Japan and abroad, building nuclear power plants, and converting thermal power plants to zero-emission plants in order to become carbon neutral by 2050 while maintaining a stable supply of energy.



## Changes in power generation facility output and post-privatization ordinary profit





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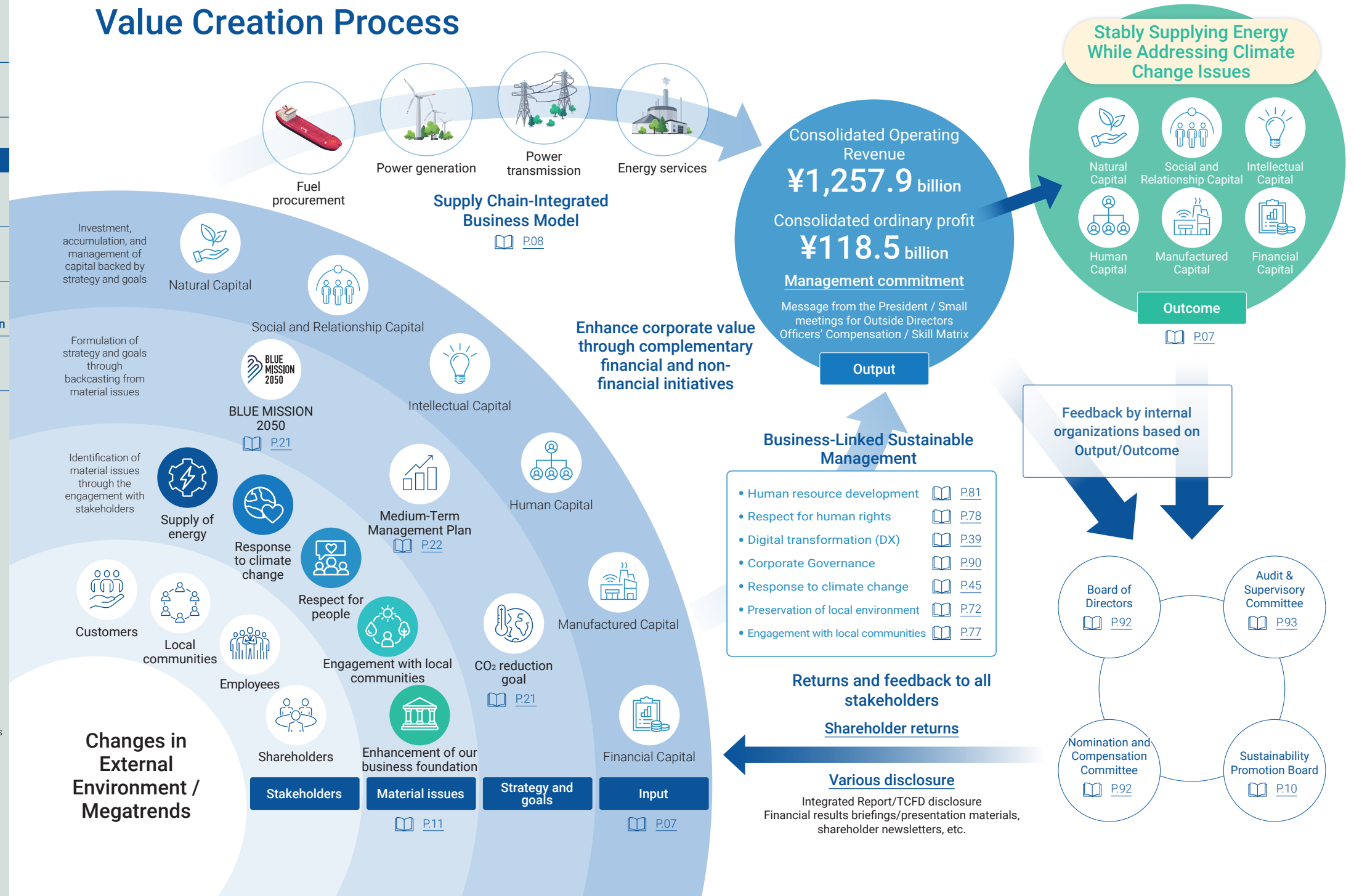
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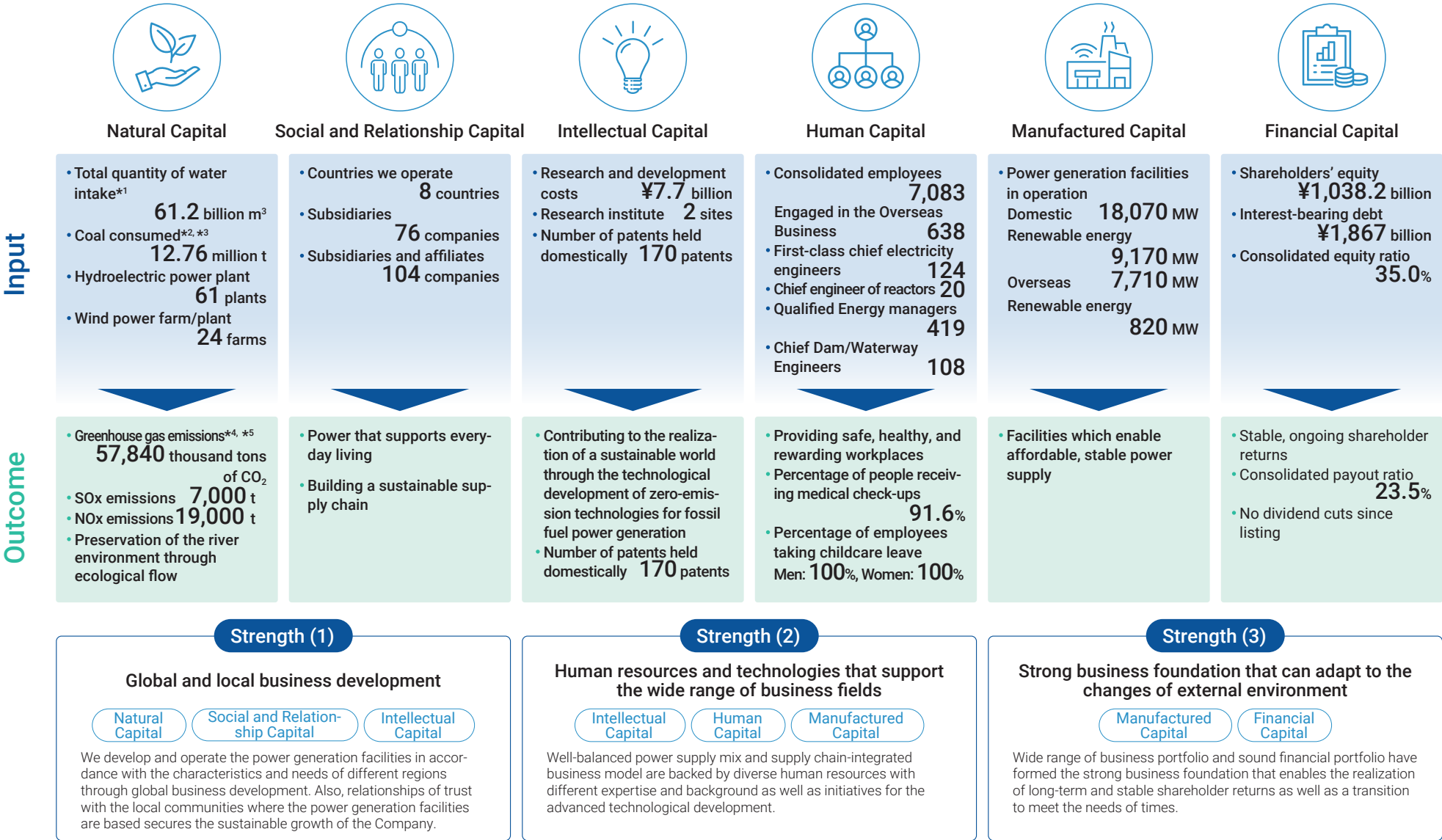
## Value Creation Process





# Value Creation Process

## Capital that has strength



\*1 Consolidated subsidiaries, including those operating at home and abroad, are included in the figure for J-POWER and Electric Power Business and Electric Power-Related Business, etc.  
\*2 Consolidated subsidiaries, including those operating at home and abroad, are included in the figure for J-POWER and Electric Power Business and Electric Power-Related Business, etc. (Consolidated subsidiaries are considered in terms of investment ratio.)  
\*3 Dry coal: 28 MJ/kg equivalent  
\*4 The figure includes J-POWER and domestic consolidated subsidiaries and equity-method affiliates in Electric Power Business, Electric Power-Related Business, etc. (Consolidated subsidiaries and equity-method affiliates are considered in terms of investment ratio.)  
\*5 Total of Scope 1, 2, and 3



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# Business Model

Investment in upstream  
resource interests for the  
purpose of stable power  
supply



Stable fuel supply

Comprehensive technical  
capabilities covering  
development, design,  
construction, and operation



Integrated Group operational  
know-how

## Renewable Energy Sources



Securing promising and suitable sites  
Accumulation of wind condition and  
power generation data

## Thermal Power Sources



Appropriate risk management and  
a flexible operation system

## Electric Power Transmission and Transformation Facilities



Technologies that boost wide-  
area electricity grid operation  
and expansion of introduction of  
renewable energies throughout Japan

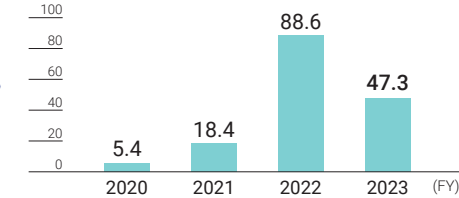
## Provision of kW/kWh/ $\Delta$ kW/non-fossil value according to the characteristics of the power source

### Electric Power Related Business/ Other Business

- Value chain that supports power generation business
- Diversification of suppliers of fuel procured

#### Segment profit

(Billions of yen)



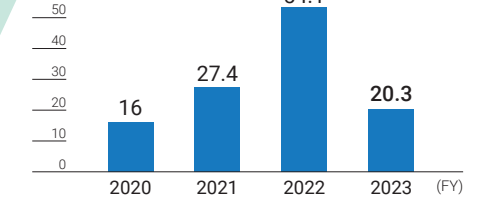
Gains or Losses mainly linked to Australian thermal coal price

### Power Generation Business

- Relative contracts with EPCOs
- Sales to the Japan Electric Power Exchange (JEPX)/retail operators

#### Segment profit

(Billions of yen)



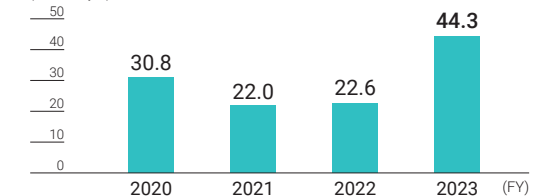
Relative contracts with the former general electric utility companies (EPCOs), which can serve as a stable revenue base, and sales to power markets conducted under appropriate risk management

### Overseas Business

- PPA\*1 with government-owned electric power companies, etc.
- Sales to liberalized markets in various countries and regions

#### Segment profit

(Billions of yen)



Stable revenue structure by the medium- to long-term PPA and power generation portfolio composition distributed by the type of power source and geography

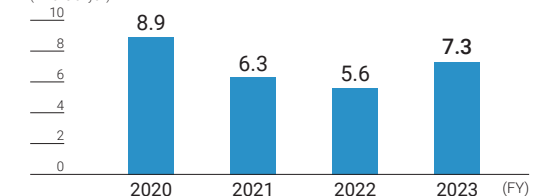
## Provision of power transmission and transformation functions

### Transmission and Transformation Business\*2

- Transmission contracts with transmission system operators

#### Segment profit

(Billions of yen)



Stable revenue under the regulated business

\*1 PPA: power sales contracts

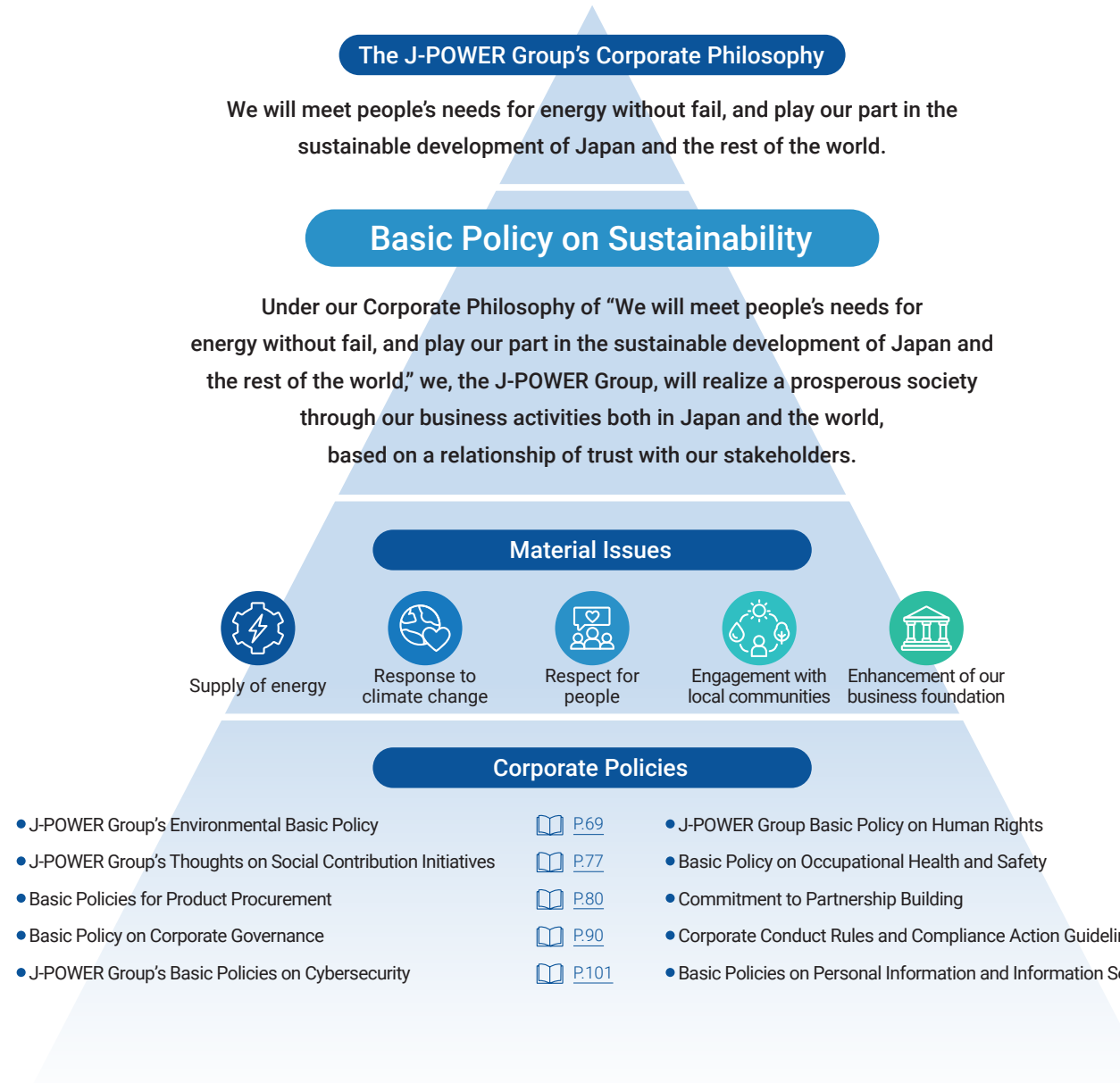
\*2 Initiatives of J-POWER Transmission Network Co., Ltd.



# J-POWER Group's Sustainability Initiatives and Management

## Basic Policy on Sustainability

In accordance with the Basic Policy on Sustainability, J-POWER has established individual basic policies regarding ESG and is promoting initiatives in these areas. The structure of the policies and rules is shown in the diagram below.



## Sustainability and Improving Corporate Value

The J-POWER Group's corporate philosophy aims to solve social issues through the enhancement of corporate value, which is sustainability in and of itself. Among various social issues, the Group has identified five material issues: supply of energy, response to climate change, respect for people, engagement with local communities, and enhancement of our business foundation, and we have set specific goals (KPIs) for each. The initiatives set to achieve the KPIs are closely related to the actions and management strategies laid out in the Medium-Term Management Plan. We will contribute to the continuous enhancement of our corporate value and the advancement of sustainability of society as a whole by achieving our KPIs while enhancing our financial value.

[P.11 J-POWER Group's Material Issues](#)

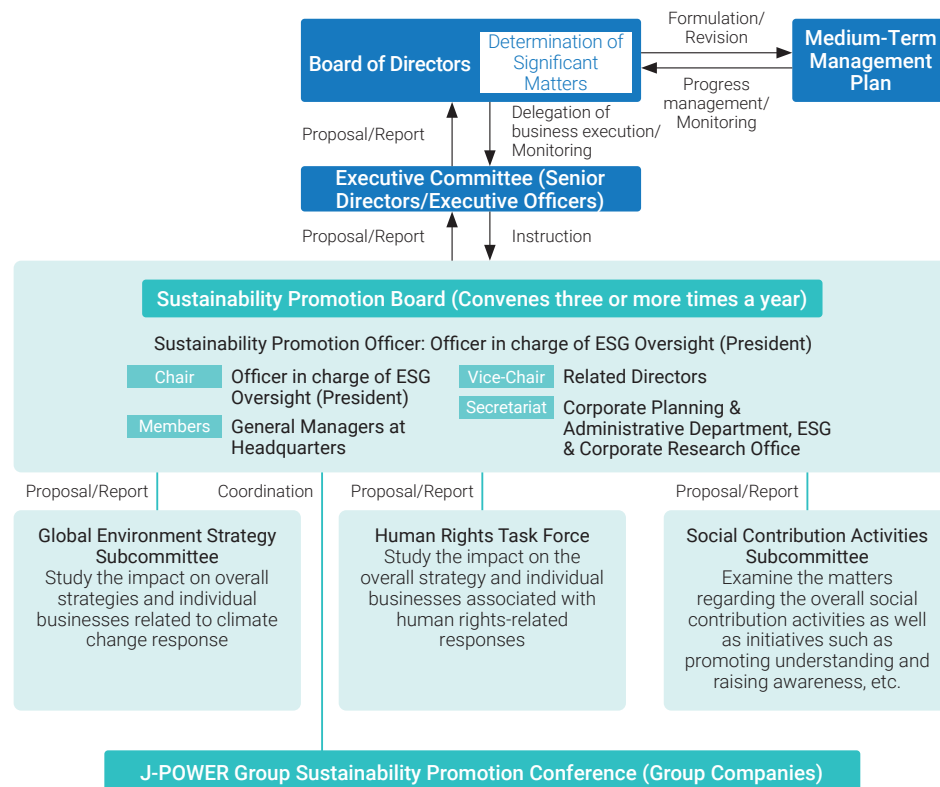
## Signing of the UN Global Compact

In April 2021, J-POWER became a signatory to the UN Global Compact (UNGC), a voluntary initiative undertaken by companies and organizations that act as good members of society and participate in the creation of a global framework for sustainable growth by demonstrating responsible and creative leadership. We are further strengthening our efforts in regard to the Ten Principles of the UN Global Compact, which focus on the four areas of human rights, labor, environment and anti-corruption, as they align with our Corporate Philosophy and policies.

**WE SUPPORT**







<p><b>Determined by the Board of Directors</b></p>	<ul style="list-style-type: none"> <li>• Raise CO<sub>2</sub> reduction target for 2030</li> <li>• Introduction of non-financial targets (material issues) to the evaluation of performance-linked remuneration for executives</li> <li>• Disclose of transition direction of thermal power operations in Japan</li> <li>• Medium-Term Management Plan</li> <li>• Evaluation of effectiveness of the Board of Directors</li> <li>• Appointment of officers/compensation system/appointment of important employees</li> </ul>
<p><b>Matters reported to Board of Directors</b></p>	<ul style="list-style-type: none"> <li>• Domestic and overseas trends on climate change</li> <li>• Status of dialogue with institutional and individual investors</li> <li>• Status of ESG initiatives and evaluation by external organizations</li> <li>• Report on internal audit results</li> <li>• Disclosure policy based on TCFD recommendations, basic policy regarding Green Transformation (GX) League</li> <li>• Occurrence status of occupational accidents</li> </ul>
<p><b>Matters reported to/determined at the Executive Committee, Sustainability Promotion Board</b></p>	<ul style="list-style-type: none"> <li>• Disclose the results of material issue targets (KPI)/PDCA</li> <li>• Development of internal rules and regulations on ESG</li> <li>• Review and evaluate the Environmental Basic Policy and targets</li> <li>• Conduct the human rights due diligence/formulate human rights risk map</li> <li>• Activity policy on engagement with local communities</li> </ul>

Stakeholders	Initiative Examples
Local communities	Briefing sessions on environmental impact assessment procedures Holding events such as tours of our power plants Participating in community activities Organizing energy and environmental education events and collaborating with educational institutions
Individual Shareholders, Institutional Investors, Analysts	Disclosure of information on websites, etc. Holding financial results briefings and individual meetings on IR and ESG Holding facility tours
Employees	Executives conduct dialogues with labor unions and visit business sites Conducting employee surveys Dissemination of information via company newsletter, intranet and other methods
Business partners and other	Disclosure of Basic Policies for Product Procurement and Commitment to Partnership Building, launch of procurement inquiry form on the website, participation in organizations and initiatives, and dialogues with NGOs on climate change response



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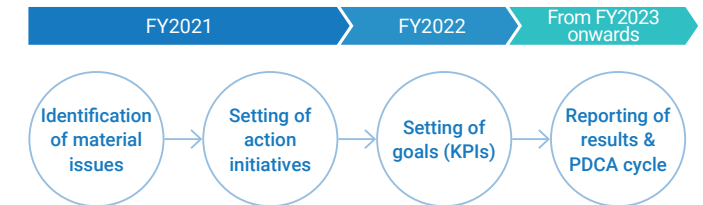
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# Risks, Opportunities and Material Issues

## J-POWER Group's Material Issues

Under our Corporate Philosophy of "We will meet people's needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world," the J-POWER Group has contributed to the achievement of an affluent society through its business activities. In 2021, we identified social issues that are important to the Group, and have identified five material issues, taking into consideration the interests of our stakeholders, the relation with our Corporate Philosophy, and the impact on our business. After preparing a materiality proposal based on third-party opinions, the Sustainability Promotion Committee and the Executive Committee discuss it, and then the Board of Directors makes a resolution. We have decided to set targets (KPIs) for 2022 and further disclose actual results in 2023, as well as to add five material issues as non-financial indicators to the evaluation indexes for executive compensation (performance-linked remuneration).

By strengthening ESG management while applying PDCA cycle of initiatives of material issues, we will work to enhance our corporate value over the medium- to long-term.



Identifying Social Issues and Needs	Main Business Environment Challenges and the Associated Risks and Opportunities		Material Issues	The Value We Create
	Risks	Opportunities		
<b>Power resilience</b>	<ul style="list-style-type: none"> <li>Stable operation of electric facilities</li> <li>Being prepared for natural disasters</li> <li>Protecting the local environment</li> </ul>	<ul style="list-style-type: none"> <li>Facility accidents from natural disasters</li> <li>Difficulty in procuring fuel (soaring resource prices, supply shortages, geopolitical risks)</li> </ul>	<ul style="list-style-type: none"> <li>Investment in aging facilities</li> <li>Investment in network facilities</li> </ul>	
<b>Changes in the business environment</b>	<ul style="list-style-type: none"> <li>Changes in the electric power business system</li> <li>Changes in society's perception of nuclear power</li> </ul>	<ul style="list-style-type: none"> <li>Revenue fluctuations due to changes in market value</li> <li>Decreasing electricity sales</li> <li>Delay in starting operations at Ohma Nuclear Power Plant</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen revenue and financial base</li> <li>Overseas business development</li> <li>Promote safe nuclear power generation business</li> </ul>	
<b>Climate change</b>	<ul style="list-style-type: none"> <li>Development of renewable energies</li> <li>Exploration of CO<sub>2</sub>-free hydrogen</li> <li>CO<sub>2</sub> reduction, Carbon Capture Storage (CCS) promotion</li> </ul>	<ul style="list-style-type: none"> <li>Profit deterioration due to CO<sub>2</sub> emissions regulations</li> <li>Difficulties in implementing CCS in society</li> <li>Difficulties in securing suitable land for renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Development of CO<sub>2</sub>-free hydrogen</li> <li>Development of CO<sub>2</sub>-free power sources</li> <li>Network enhancement</li> </ul>	
<b>Transition to a digital society</b>	<ul style="list-style-type: none"> <li>Digital transformation (DX), cybersecurity</li> </ul>	<ul style="list-style-type: none"> <li>Cyber attacks</li> <li>Delayed use of digital technologies</li> </ul>	<ul style="list-style-type: none"> <li>Improve productivity by upgrading equipment maintenance</li> <li>Strengthen IT risk system, improve IT literacy</li> </ul>	
<b>Domestic population decline, depopulation</b>	<ul style="list-style-type: none"> <li>Human resource development</li> <li>Regional revitalization</li> </ul>	<ul style="list-style-type: none"> <li>Difficulty in maintaining technological capabilities</li> <li>Less workers in rural areas</li> </ul>	<ul style="list-style-type: none"> <li>Use of diverse human resources</li> <li>Improve productivity through streamlining work</li> </ul>	
<b>Growing interest in ESG</b>	<ul style="list-style-type: none"> <li>Corporate Governance</li> <li>Enforcement of compliance</li> <li>Improved information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Decline in reputation</li> <li>Increased difficulty in raising funds</li> </ul>	<ul style="list-style-type: none"> <li>Attract ESG investment</li> <li>Strengthen governance</li> <li>Strengthen compliance</li> </ul>	



Supply of energy

The J-POWER Group's corporate philosophy states, "We will meet people's needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world." As such, the supply of energy is not only the Company's main goal but also the cornerstone for addressing a number of social issues.



Response to climate change

Energy supply and climate change response are social issues that cannot be taken into consideration separately in light of the growing global concern over climate change. The J-POWER Group aims to balance stable energy supply and adaptability to climate change by leveraging its technological capabilities.



Respect for people

As the activities of the J-POWER Group are supported by our employees and other human resources, we will create an environment in which they can play an active role. We will also proactively address related social issues such as diversity and human rights.



Engagement with local communities

Large-scale energy supply projects have an impact on local communities and the environment. They are only possible with the understanding of local residents. Therefore, we will work to preserve the local environment and build relationships of trust with local communities.



Enhancement of our business foundation

We will work to ensure corporate governance and compliance as we strengthen our earnings and financial base so that we can solve social issues and increase corporate value through our business activities.

### Contributions to SDGs



Achieve enhancement of corporate value by solving social issues

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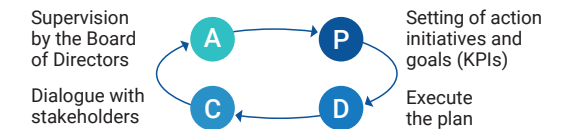
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# Progress Toward KPIs for Material Issues

## FY2023 Progress and FY2024 Goals

The progress toward KPIs for material issues set in FY2023 is presented on this page. Each fiscal year, we report the status of our goals to the Sustainability Promotion Board and the Board of Directors, and review the goals for the following fiscal year as needed. We make a public announcement of the status of progress and use it for the dialogue with stakeholders to apply the PDCA cycle.

### Reporting of results & PDCA cycle



Material Issues	Action Initiatives	Goals (KPIs)	FY2023 results	Evaluation/Reference	Goals (KPIs) for FY2024																																
 Supply of energy	Stable operation of electric facilities	Electricity Sales: Achieve initial fiscal year forecasts* <sup>1</sup>	<table><thead><tr><th></th><th>Initial fiscal year forecasts</th><th>Results</th><th>Achievement rate</th></tr></thead><tbody><tr><td>Hydroelectricity</td><td>9.1 billion kWh</td><td>9.0 billion kWh</td><td>99%</td></tr><tr><td>Thermal</td><td>48.5 billion kWh</td><td>38.5 billion kWh</td><td>79%</td></tr><tr><td>Wind</td><td>1.2 billion kWh</td><td>1.1 billion kWh</td><td>94%</td></tr><tr><td>Overseas Business*<sup>2</sup></td><td>19.0 billion kWh</td><td>19.8 billion kWh</td><td>104%</td></tr><tr><td>Subtotal ... ①</td><td>77.8 billion kWh</td><td>68.5 billion kWh</td><td>88% (Below KPI)</td></tr><tr><td>Other*<sup>3</sup> ... ②</td><td>12.4 billion kWh</td><td>11.6 billion kWh</td><td>93%</td></tr><tr><td>Total (① + ②)</td><td>90.2 billion kWh</td><td>80.2 billion kWh</td><td>89% (Below KPI)</td></tr></tbody></table>		Initial fiscal year forecasts	Results	Achievement rate	Hydroelectricity	9.1 billion kWh	9.0 billion kWh	99%	Thermal	48.5 billion kWh	38.5 billion kWh	79%	Wind	1.2 billion kWh	1.1 billion kWh	94%	Overseas Business* <sup>2</sup>	19.0 billion kWh	19.8 billion kWh	104%	Subtotal ... ①	77.8 billion kWh	68.5 billion kWh	88% (Below KPI)	Other* <sup>3</sup> ... ②	12.4 billion kWh	11.6 billion kWh	93%	Total (① + ②)	90.2 billion kWh	80.2 billion kWh	89% (Below KPI)	[Not yet achieved] Utilization rate of thermal power (55%) has been significantly lower than initial forecasts of 68%. <a href="#">P.30</a>	[To be continued] Initial forecasts for FY2024 Hydroelectric 9.2 billion kWh Thermal 40.5 billion kWh Wind 1.4 billion kWh Overseas Business 16.9 billion kWh Other* <sup>3</sup> 14.5 billion kWh (82.5 billion kWh in total)
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*Due to the fractions, totals do not add up.																																					
Preparation for/and response to natural disasters	Appropriate review of BCP based on the latest knowledge Expanded facility measures and crisis management system (including education and training)	Renewed headquarters' BCP by using advice given by outside experts Enhanced the facility measures against earthquake and Tsunami, etc. based on the new disaster prevention master plan Continued to conduct the fully remote comprehensive disaster drills Organized the crisis information communication routes to reconstruct the faster reporting structure	[Ongoing] <a href="#">P.100</a>	[To be continued]																																	
Strengthening of cybersecurity	Zero major security incidents	Zero major security incidents	[Achieved] <a href="#">P.101</a>	[To be continued]																																	
Reduction of greenhouse gases	CO <sub>2</sub> reduction from the domestic power generation business (compared to FY2013) Reduction of 9.2 million tons by FY2025 Reduction of 46% (22.5 million tons) by 2030	Reduction of 15.09 million tons compared to FY2013 (Reference: CO <sub>2</sub> emissions in FY2023: 33.68 million tons)	[Ongoing] <a href="#">P.22</a>	[To be continued]																																	
 Response to climate change	Development of renewable energy	New development of renewable energy to 1,500 MW or more by FY2025 (compared to FY2017)	Against the target of 1,500 MW (compared to FY2017) for new development of renewable energy for FY2025, the total of start of operation, start of construction, and start of survey projects was 2,638 MW.	[Ongoing] On track to achieve the FY2025 target <a href="#">P.22</a>	Increase the electric power generated from domestic renewable energy by 4.0 billion kWh/year by FY2030 (Compared to FY2022)																																
	Steady promotion of the Ohma Nuclear Power Plant Project, with safety as a major prerequisite	Promotion of the CO <sub>2</sub> -free Ohma Nuclear Power Plant Project on the basis of safety	Addressing the assessment of nuclear power facilities' adherence to the New Safety Standard for Nuclear Power Stations	[Ongoing] <a href="#">P.34</a> <a href="#">P.48</a>	[To be continued]																																
	Pursuit of the possibility of CO <sub>2</sub> -free hydrogen	Promotion of green and blue hydrogen production and utilization technologies in Japan and overseas	(Overseas green hydrogen) Participation in the green hydrogen/ammonia manufacturing business in the Sultanate of Oman (Overseas blue hydrogen) Participation in a demonstration project to establish an international liquefied hydrogen supply chain in which hydrogen was produced through brown coal gasification in Victoria, Australia to export to Japan. Considering the commercialization of clean hydrogen production combined with CCS, based on the knowledge obtained from the project (Domestic green hydrogen) Considering the commercialization of hydrogen production and supply using domestic renewable energy sources (Domestic blue hydrogen) Promoting the GENESIS Matsushima Plan as a first step of CO <sub>2</sub> -free hydrogen power generation through the coal gasification and CCS. Currently working on the establishment of a joint venture with the ENEOS Group to implement CCS in Japan in 2030.	[Ongoing] <a href="#">P.49</a> <a href="#">P.50</a> <a href="#">P.51</a>	[To be continued]																																

\*1 Initial forecast of electricity sales (billion kWh) for the fiscal year ended March 31, 2023 (FY2022), as announced in the financial results presentation.

\*2 Electricity sales by overseas consolidated subsidiaries (excluding electricity sales by equity method affiliates) \*3 Sales of electricity procured from the Japan Electric Power Exchange, etc.



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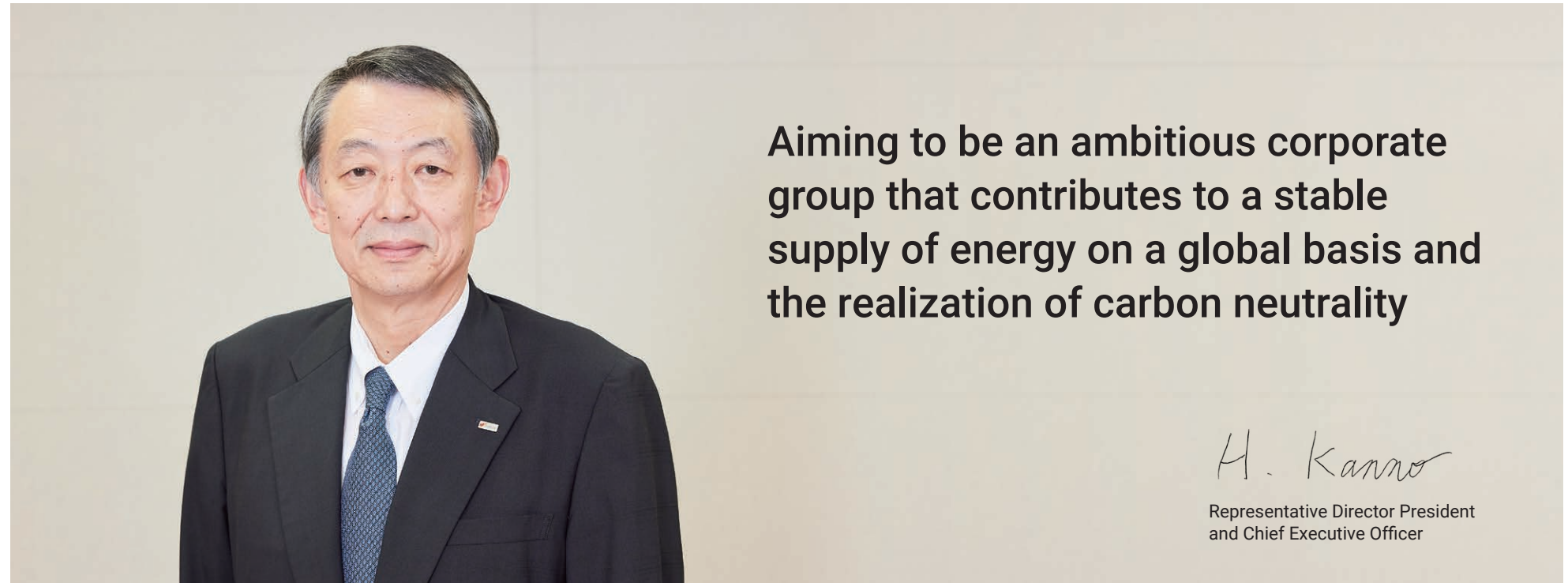
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Material Issues	Action Initiatives	Goals (KPIs)	Results	Evaluation/Reference	Goals (KPIs) for FY2024
 Respect for people	Respect for human rights	<ul style="list-style-type: none"> <li>Formulation of a Human Rights Policy and promote initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of human rights due diligence based on Basic Policy on Human Rights established in June, 2022.</li> <li>Identification and prioritization of human right risks, and review of the measures at the Human Rights Subcommittee under the Sustainability Promotion Board</li> </ul>	[Ongoing]  <a href="#">P.78</a> <a href="#">P.79</a>	<ul style="list-style-type: none"> <li>Promotion of human rights due diligence based on Basic Policy on Human Rights. Completion of the review within FY2024.</li> </ul>
	Human resource development	<ul style="list-style-type: none"> <li>Fostering human resources who can take on various management issues through the creation of a workplace that promotes continuous innovation</li> </ul>	<ul style="list-style-type: none"> <li>Average hours of training per employee ..... 36.4 hours/person*4</li> <li>Training cost per employee ..... ¥236 thousand/person*4</li> </ul>	[Ongoing]  <a href="#">P.85</a> <a href="#">P.86</a>	[To be continued]
	Assurance of occupational health and safety	<ul style="list-style-type: none"> <li>Eliminate major disasters (zero fatalities or serious injuries)</li> <li>Maintain and improve high uptake rate of thorough medical check-ups (over 90%)</li> <li>Employee satisfaction surveys*4</li> </ul>	<ul style="list-style-type: none"> <li>Fatalities: None, Serious injuries: 7 (previous year: 8) (Below KPI)</li> <li>Percentage of people receiving medical check-ups: 92% (KPI achieved)</li> <li>Conducted an engagement survey instead of employee satisfaction surveys (KPI achieved)*5</li> </ul>	[Achieved except a KPI]  <a href="#">P.87</a> <a href="#">P.89</a>	[To be continued]*5
	Promotion of diversity	<ul style="list-style-type: none"> <li>Number of female employees with senior roles: At least three times the number in FY2021 (24 employees) by 2030*4</li> <li>Appointment of foreign nationals to senior roles: Increase from FY2021 (147 employees) by 2030 in line with expanded overseas business</li> <li>Number of mid-career hires among employees with senior roles*4: At least 1.5 times the number in FY2021 (110 employees) by 2030</li> <li>Percentage of female employees among new hires: 20% or more*4</li> <li>Percentage of employees taking childcare leave: 100%*4</li> </ul>	<ul style="list-style-type: none"> <li>Number of female employees in senior roles: ..... 37 (Ongoing)</li> <li>Appointment of foreign nationals to senior roles: ..... 151 (Ongoing)</li> <li>Number of mid-career hires among employees with senior roles ..... 136 (Ongoing)</li> <li>Percentage of female employees among new hires: ..... New graduate employees who joined the Company on April 1, 2024 22% (KPI achieved)</li> <li>Percentage of employees taking childcare leave: ..... 100% (KPI achieved)</li> </ul>	[Ongoing (Some KPIs achieved)]  <a href="#">P.82</a> <a href="#">P.84</a>	[To be continued]
	Preservation of local environment	<ul style="list-style-type: none"> <li>Zero serious violations of environmental laws and agreements</li> <li>Effective utilization rate of industrial waste: Approx. 97%</li> </ul>	<ul style="list-style-type: none"> <li>Number of serious violations of environmental laws, agreements, etc.: 0 (KPI achieved)</li> <li>Effective utilization rate of industrial waste: 95% (KPI almost achieved)</li> </ul>	[Achieved]  <a href="#">P.71</a>	[To be continued]
 Engagement with local communities	Creation of relationships of trust with local communities	<ul style="list-style-type: none"> <li>Active participation in local contribution activities</li> </ul>	<ul style="list-style-type: none"> <li>Number of activities: 815</li> <li>6,719 J-POWER Group employee participants in total (a significant increase from 3,263 in the previous year). The activities include tree planting, cleanup activities, visiting lectures, accepting facility tours, taking part in dialogues with communities and participation in local events and financial support, and volunteer crossing guards, etc.</li> </ul>	[Ongoing]  <a href="#">P.77</a>	[To be continued]
	Enforcement of corporate governance	<ul style="list-style-type: none"> <li>Continuous efforts to identify issues and improve them through annual evaluation of the effectiveness of the Board of Directors</li> </ul>	<ul style="list-style-type: none"> <li>Based on the results of the evaluation from the previous year, intensive opinion exchange meetings were held and opinions were exchanged by non-executive directors as a place to discuss the future vision and important management issues of the Company.</li> <li>Improvements of the list of findings identified by the Board of Directors and confirmation of the progress, etc.</li> </ul>	[Ongoing]  <a href="#">P.95</a>	[To be continued]
 Enhancement of our business foundation	Enforcement of compliance	<ul style="list-style-type: none"> <li>Strengthening efforts through the J-POWER Group Compliance Action Committee via compliance activity reports, understanding the issues, and incident analysis</li> </ul>	<ul style="list-style-type: none"> <li>Identification of issues and analysis of cases through questionnaires targeting J-POWER Group employees and opinion exchange meetings where directors and employees directly communicate with each other, and reflection in compliance promotion activities such as various training programs and events in the next fiscal year.</li> <li>Sharing lessons learned from the case study of the past between related parties and providing various compliance trainings</li> </ul>	[Ongoing]  <a href="#">P.79</a> <a href="#">P.98</a> <a href="#">P.99</a>	[To be continued]
	Strengthening of our revenue and financial base	<ul style="list-style-type: none"> <li>Consolidated ordinary profit 90 billion yen or more in FY2023</li> <li>Consolidated equity ratio: 30% or more in FY2023</li> </ul>	<ul style="list-style-type: none"> <li>Consolidated ordinary profit ..... 118.5 billion yen (KPI achieved)</li> <li>Consolidated equity ratio 35% (KPI achieved)</li> </ul>	[Achieved]  <a href="#">P.22</a>	FY2026 <ul style="list-style-type: none"> <li>Consolidated ordinary profit: Approx. 90 billion yen</li> <li>ROE: Approx. 5%</li> <li>Performing assets ROIC: Approx. 3.5%</li> </ul>

\*4 Employees enrolled in J-POWER (excluding some on secondment) \*5 Changed the name of employee satisfaction surveys to the engagement survey

# Message from the President



## Reviewing My First Year in Office

In the year since I was appointed president, I have travelled around the world to take another look at J-POWER Group facilities and meet our employees in each region. As a result, I gained a strong sense that our facilities have become a part of the landscape for local communities. I got this impression not only in Japan, but also in countries such as Indonesia, Thailand, and the U.S. While the amount of time each facility has been present in each region varies, they have all integrated into the community in the same way and become a part of the infrastructure that watches over peoples' daily lives. As I stood in these spaces, I felt deeply moved by how J-POWER has really taken root in each region. At the same time, I also realized how we now have a great responsibility to find ways to move forward together with each community.

Shifting the focus from local to global, it seems that the situations concerning the global energy supply and demand crunch and rising resource prices have calmed to a certain extent. On the other hand, factors such as logistics disruptions caused by the rapidly escalating situation in the Middle East remind us that a stable energy supply is dependent on global peace and a balanced trading relationship between countries. In Japan's case in particular, more than half of our energy is imported, so overcoming this energy supply vulnerability is an extremely important theme to address.

As Japan's energy situation grows increasingly severe in this way, I think that our role as a group of energy-focused companies has become both worthwhile and challenging. We will put our full effort into achieving our aim of being an ambitious corporate group that contributes to a stable supply of energy on a global basis and the realization of carbon neutrality.



# Message from the President

## Our Mission

Human civilization is dependent on the consumption of large amounts of energy. Continue to supply energy to civilized society while addressing climate change issues. Our Group’s mission is to achieve both of these challenges.

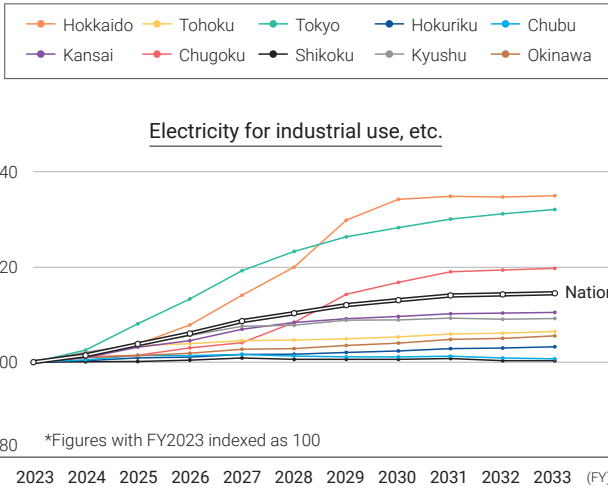
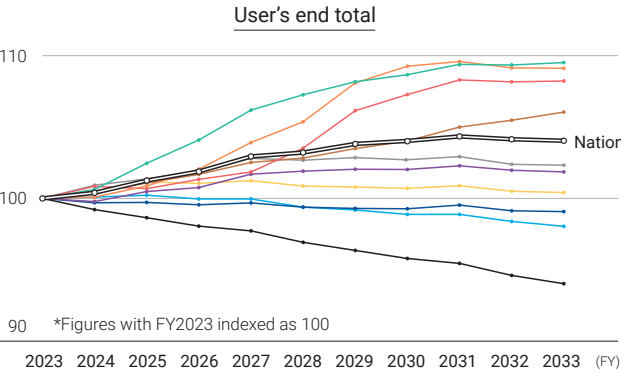
In 2024, we have been presented with a situation that is forcing us to reconsider our approach to realizing a stable supply of energy. This is because electricity demand in Japan is expected to rise in the future.

This year, the Japanese government has been engaged in discussions regarding revisions to the Strategic Energy Plan, while the GX (Green Transformation) Implementation Council has been considering feasible routes for realizing decarbonization. In addition to this, Japan’s Nationally Determined Contribution (NDC), which is the national target for reducing greenhouse gas emissions, has been renewed and it will be submitted to the UN by next spring.

As these discussions on energy and climate change measures are integrated and moved forward, in January 2024,



## Trends in electric power demand by area



Source: FY2024 Forecast on Electricity Demand Nationwide and by Regional Service-Area by OCCTO

the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) announced that electricity demand, which had been on a downward trend since peaking in 2007, was forecast to “begin increasing from FY2024 and will have increased by about 4% of current levels by FY2033.”

The reason behind this is a data shift across global society in the form of generative AI, large-scale data centers (DC), and semiconductor manufacturing plants. Furthermore, the overarching trend is the revision of supply chains on a global scale amid great instability in international relations, including Russia’s invasion of Ukraine and the deterioration of the relationship between the U.S. and China.

There is a sense of crisis regarding how to respond to this new large-scale demand for electricity, and this is influencing considerations regarding the new Strategic Energy Plan.

Furthermore, Japan is aiming to become carbon neutral by 2050. Therefore, it needs to reduce the ratio of electricity generated by combusting fossil fuels, which currently

comprises about 70%, by switching to renewable energy, nuclear power, and zero-emission thermal power. Society needs to recognize that this transition will necessitate an increase in the cost of energy. We will strive to mitigate these rising energy costs by accelerating the initiatives we have been engaged in to date, while at the same time, we will fulfill our responsibility to inform society by disclosing information on specific plans to reduce CO<sub>2</sub> emissions.

Engage sincerely in efforts to provide a stable supply of energy while addressing climate change issues. At the same time, maintain the trust of society by fulfilling our responsibility to inform. I believe these are the missions we should be working to accomplish.

[P.19 Environment Surrounding the Domestic Electric Power Business](#)

# Message from the President

## J-POWER “BLUE MISSION 2050”

J-POWER “BLUE MISSION 2050” is our long-term strategy and roadmap for maintaining energy supplies while working toward carbon neutrality.

Our ultimate goal is to be carbon neutral by 2050 and we have set a reduction in CO<sub>2</sub> emissions from our domestic power generation business of 46% compared to FY2013 levels (22.5 million tons) as our 2030 target. There are only six years left to achieve this 2030 target. Therefore, we must make steady progress in accordance with our roadmap.

The basic approach of J-POWER “BLUE MISSION 2050” is to transition to carbon neutrality through action based on the three pillars of (1) Expansion of CO<sub>2</sub>-free power sources, (2) Creating a zero-emission power supply, and (3) Power network stabilization and enhancement.

CO<sub>2</sub>-free power sources refer to renewable energy and nuclear power generation. (2) Creating a zero-emission power supply means decarbonizing thermal power sources. In the near future, we aim to realize CO<sub>2</sub>-free hydrogen power generation using CCUS technology (technology for storing and utilizing separated and captured CO<sub>2</sub>) and the manufacture and supply of CO<sub>2</sub>-free hydrogen.

Japan, in particular, cannot afford to become dependent on any one of renewable energy, nuclear power, or zero-emission thermal power, so it is important to build a balance of these three power sources. One of Japan’s characteristics is that it has a lot of mountainous land and very little shallow ocean. This means there is only a certain amount of land that is suitable for renewable energy, putting limits on future development. Currently, thermal power generation relies on imported fuel, but entirely new supply chains will need to be created for the hydrogen and ammonia used in zero-emission thermal power. While each power source poses considerable challenges, steady development and expansion are required for each of the three.

Additionally, (3) Power network stabilization and enhancement are the initiatives needed to supply electricity more efficiently and without waste. The plan to reinforce the Sakuma Frequency Converter Station, which connects east and

west Japan, is an important project and construction is progressing steadily with the aim of starting operation in FY2027. In addition to this, we will utilize pumped storage hydroelectric generation and CO<sub>2</sub>-free hydrogen power generation, which offers superior load following capability, to adjust for fluctuations in output when large volumes of renewable energy are introduced into the grid, thereby contributing to stabilizing the power network.

Our track record of developing and operating businesses without being constrained to a certain country or region means we are the most agile corporate group out of all enterprises engaged in energy-related business, and our varied portfolio of power sources and expertise are our strengths.

It is because of these strengths that we can contribute to the expansion of renewable energy, nuclear power, and zero-emission thermal power sources, as well as to both the stabilization and enhancement of the power network. I think the J-POWER Group needs to be a leader in building a diverse portfolio of power sources.

Under J-POWER “BLUE MISSION 2050,” we plan to make strategic investments worth ¥700 billion in the period from

### Expansion of CO<sub>2</sub>-free power sources

- Further expansion of renewable energy
- Steady promotion of nuclear power generation

### Creating a zero-emission power supply

- Conversion from thermal power generation to CO<sub>2</sub>-free hydrogen power generation
- Production and supply of CO<sub>2</sub>-free hydrogen
- CCS

### Power network stabilization and enhancement

- Power network stabilization
- Power network enhancement



FY2023 to FY2030. In order to become carbon neutral by 2050, we need to be making focused strategic investments during this period. As shown in capital allocation FY2024–FY2026, which is included in the Medium-Term Management Plan 2024–2026 (“MTMP”), we plan to make strategic investments of approximately ¥300 billion over the three years from 2024 to 2026, with a focus on global renewable energy development. When investing, we will allocate funds with a priority on investments in carbon-neutral assets in Japan and overseas, while taking capital efficiency and profitability into account. While we are investing in a wide variety of fields at present, over the next few years we will be discerning the fields and technologies that should receive focused investment.

 [P.21 J-POWER “BLUE MISSION 2050”](#)

 [P.45 Initiatives for Carbon Neutrality](#)

 [P.26 Capital Allocation](#)



# Message from the President

## Medium-Term Management Plan

Looking back on the extent to which we achieved our previous medium-term management plan, which ended in FY2023, I think we can say that we largely made our targets. In particular, we produced steady results in areas including the smooth development of renewable energy, as well as progress on the expansion of the Overseas Business and initiatives to realize the early commercialization of CCS. We also made solid progress toward our 2025 and 2030 targets for reducing CO<sub>2</sub> emissions in our domestic business.

On the other hand, there are also points we should reflect on. One of these is our slow response as the role played by thermal power shifted from a baseload power source to an intermediate load power source. Also, in regard to the Ohma Nuclear Power Plant, we made a mistake when inputting analysis data which led to the Nuclear Regulation Authority temporarily suspending its assessment of conformity with new regulatory requirements. I feel this is a mistake that requires serious reflection.

Furthermore, we are required by the Tokyo Stock Exchange to practice management that is conscious of cost of capital and stock price, or in other words, to deal with the issue of PBR being below 1x, and we have received a lot of feedback from stakeholders who question our recognition of this situation. Through dialogue with stakeholders, we need to work to raise capital efficiency from an ROE and ROIC perspective. At the same time, we will demonstrate our approach to realizing sustainable growth while managing business risk in an increasingly volatile business environment.

The new MTMP outlines our vision for the 2030s which requires us to implement two transitions during the three years from 2024 to 2026. The first of these is a business portfolio transition, in which we will aim to replace assets in a way that is conscious of capital efficiency to transition to a business portfolio that primarily comprises carbon-neutral assets both in Japan and overseas. The second is a business model transition. In addition to our long-practiced business model of recovering investments through the development and long-term possession of power generation, transmission, and transformation facilities, we will aim to raise corporate value by taking on the challenge of creating businesses with diverse earnings and expense structures.

One point in our MTMP that I would like to bring up is improving the profitability of renewable energy. Previously, we

set targets for power generation capacity (kW), but instead of this, we have set a new target of increasing power generation volume (kWh) by 4 billion kWh per year compared to FY2022 levels by FY2030. As demand for CO<sub>2</sub> emission-free electricity grows extremely strong, we cannot just expand our facilities in terms of size. I think it is important that we increase the amount of electricity that customers can use through measures such as upgrading facilities and increasing operating rates. We will also combine these efforts with initiatives for maximizing environmental value with the aim of improving profitability and realizing even further growth.

Another major point is that we have come up with the initial direction of the transition of thermal power generation in Japan. Up to now, we have been receiving demands from various stakeholders, including the capital markets, that we clarify the methods and reduction routes we will use to achieve our CO<sub>2</sub> emissions reduction targets. Taking these demands into account, the new MTMP shows which units will be decommissioned, suspended, discontinued, or made into a reserve power source, and it also includes a roadmap for the transition of remaining coal-fired thermal power facilities to zero-emission thermal power on a site and unit basis. We have chosen the most suitable technology in accordance with the characteristics of each power plant site, and going forward, we will steadily implement the plan while revising it based on factors such as government policy and systems design, the status of electricity supply and demand in each region, and the progress of technological development.

The plan also touches on the use of the Long-Term Decarbonization Power Source Auction System in regard to the Ohma Nuclear Power Plant. This is an auction system for new investments in decarbonized power sources that increase the predictability of investment recovery. With a view to utilizing this system, we are moving forward at full power to enable work to start on safety enhancement measures as soon as possible, while ensuring safety remains the utmost priority.

In terms of growth strategy, the plan focuses on expanding and strengthening the Overseas Business, where we anticipate there will be lots of business opportunities in the future. While our overseas operations to date have mainly involved thermal power, going forward, we will primarily engage in renewable energy in a way that accounts for the needs and energy policy of each country. We are mainly targeting the

U.S. and Asia Pacific region. For example, we will leverage the potential for renewable energy, including hydroelectricity in Southeast Asia, solar and wind power in Australia, and solar power in the U.S., alongside our technological strengths, to enable business development with partners based on the circumstances of each location. Also, we will also aim for business models that can generate profits in a variety of ways, such as capturing developers' profits early by selling developed assets and providing energy services not limited to the power generation business.

Furthermore, we have decided to introduce ROIC as a means of controlling investment efficiency and this will be an important priority, alongside strategic investments for the future. Going forward, we will clarify the connection between initiatives being carried out at business locations and ROIC as we strive to raise awareness of ROIC, in order to encourage autonomous management by each business department.

[P.22 Medium-Term Management Plan](#)

[P.27 Interview with the Officer in Charge of Accounting and Finance](#)

### Improvement measures for long-term corporate value enhancement

Renewable energy in Japan	Increase in power generation volume and realization of environmental value
Overseas	Expansion of business scope and profit generation over multiple time horizons
Coal-fired thermal power	Announcement of direction for domestic thermal power transition
Ohma nuclear power	Consideration of the use of the Long-Term Decarbonization Power Source Auction System
Business management	Study and implementation of measures for improving capital efficiency through the introduction of ROIC

+

Setting ROE target for the 2030s
Establishing ROIC levels necessary to achieve the above target ROE
Providing forecastable shareholder returns
Disclosure enhancement and ongoing efforts for engaging in active dialogue with the markets

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## Message from the President

### Sustainability

#### Material Issues

In FY2021, we identified five material issues for the J-POWER Group and we have been addressing these as a priority. Since FY2023, we have disclosed the progress we are making on our goals (KPIs) for each issue. I would like to address three points regarding our progress in the previous fiscal year.

The first involves the supply of energy. The frequent occurrence of equipment trouble at power plants, particularly the long-term suspension of operation of No. 1 Unit at Tachibanawan Thermal Power Plant, has been cause for serious reflection, and we will make every effort to maintain stable operations and prevent equipment trouble.

The second point concerns the enhancement of our business foundation. Up to now, our business has been predicated on the long-term holding of assets, but we are starting to work toward efficiently recovering investments by selling off a portion of these assets at the appropriate timing. We plan to expand this initiative going forward.

The third point involves local community engagement. Maintaining relationships of trust with local communities is essential to the continuity of our business. Even up to now, engaging with the local communities at each business location has been an extremely important theme, and we plan to redouble the energy we put into this engagement. In Japan in particular, the communities in areas where we have power plants are facing challenges such as population decline and aging. Our power plants will continue to operate in these regions, so we need to face these issues together with the local community as a member of that community. For example, at the Sakuma Dam and Power Plant, we have launched the NEXUS Sakuma Project, which aims to upcycle the power plant to generate new value and energy. We will compile and share information about our implementation of this type of initiative in each area, while deepening consideration about what we should do next.

 [P.12 Material issues \(KPIs\) and results](#)

 [P.77 Engagement with local communities](#)

#### Human Resources Strategy

We have always had a workforce made up of versatile people. To advance a project, we gather human resources from a range of different backgrounds, including economics, law, electrical engineering, mechanical engineering, civil engineering, construction, chemistry, nuclear power, and geology. However, looking at cases from the past few years, there have been times when a lack of cross-sectoral coordination has led to delays and mistakes, or in other words, we have been harmed by a silo management mentality.

Therefore, we are working to become a company that creates and takes on new challenges by urging employees to meet halfway and connect with other internal organizations so that we can create excellent projects together. This means not focusing solely on your own field of work, but also showing interest in the work of the people around you, so you can share opinions and advice. To achieve this goal, we are implementing diversity promotion measures and establishing and enhancing human resource systems that support employees taking on challenges.

In April, we established the Innovation and New Business Development Department. We expect it to help connect a wide range of different talents in a way that leads to new successes. To facilitate this, we are bringing together diverse personnel and encouraging them to use their ingenuity to create new projects. We aim to commercialize several of these projects over the next few years.

 [P.81 Human Resources Strategy](#)

#### Corporate Governance

In addition to transitioning into a company with an Audit & Supervisory Committee in FY2022, we have made discussions at Board of Directors meetings more dynamic, including through informal efforts such as opinion exchange sessions. During the formulation of the MTMP in particular, the Board

held substantial discussions over long periods. Dynamic discussion by the Board of Directors naturally strengthens its self-checking function, and we think this is having a significant effect on the enhancement of governance.

However, it is important that this evolution in governance functions is not limited to management, but is expanded to include the entire Company. Checks and balances must cover the whole organization. I think the first step to achieving this will be to ensure thorough communication between management and workplaces. We believe that a true evolution in governance will to be maintain authentic links between management and workplaces and to strengthen intra-organizational relationships throughout the entire Group by having management take the lead in meeting halfway.

 [P.95 Evaluation of Effectiveness of the Board of Directors](#)

#### Message to Stakeholders

Maintaining energy supplies and working toward carbon neutrality are both long-term endeavors. Since releasing the MTMP, we have maintained dialogue with stakeholders and received a lot of feedback, including requests for clarification regarding our selection of long-term investments and expected returns, as well as for further explanations of thermal power transition measures. I recognize that as a manager, these are issues I must continue addressing with full force.

We will work to strengthen earning power while advancing business portfolio and business model transitions with our sights set on the 2030s, and we will demonstrate a commitment to enhancing corporate value. Going forward, I will actively create opportunities to communicate with all our stakeholders as I strive to build even greater trust in the J-Power Group.

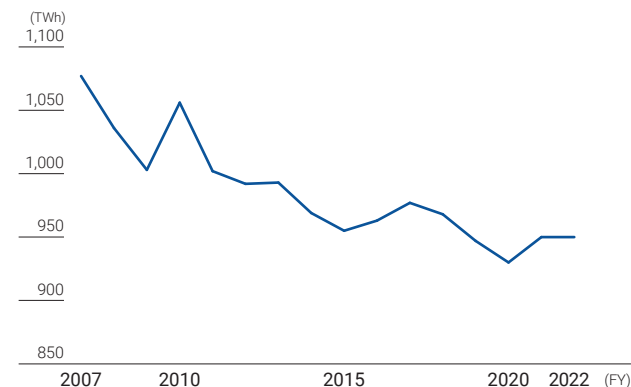


# Environment Surrounding the Domestic Electric Power Business

## Electric Power Demand in Japan

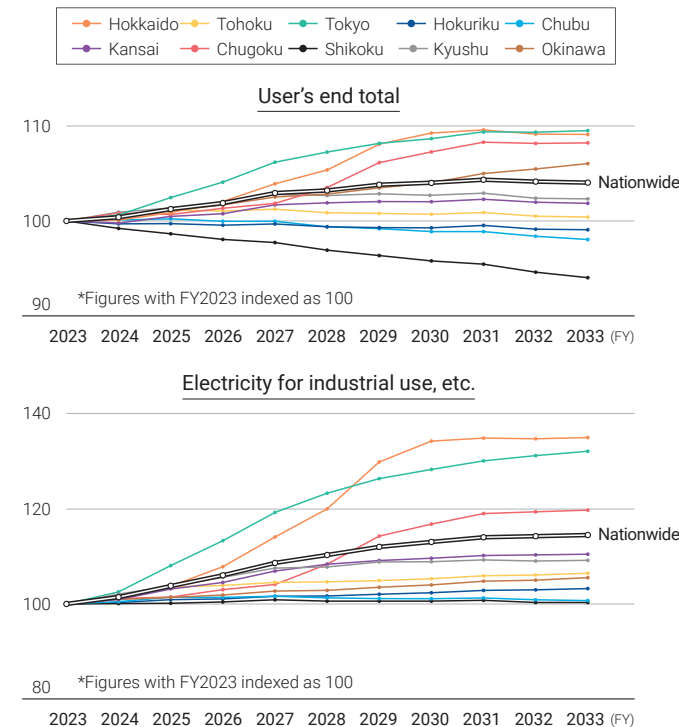
Electric power consumption continued to grow almost consistently in postwar Japan in line with the economic growth of the country. Power demand continued to grow also after the 1990s, when the country entered a period of stable growth and an information society, driven not only by increased power consumption in the industrial sector but also by the growing need for convenient and comfortable lifestyles including the advanced information technology and the widespread use of air conditioners. In recent years, the demand for electricity was expected to stagnate and decline due to power-saving efforts prompted by the Great East Japan Earthquake in 2011 and a declining population resulting from a falling birthrate and aging society. However, the outlook for electricity demand published by the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) in January 2024 presented a blueprint for future growth in power demand on the back of growing consumption of industrial electricity resulting from the expansion or construction of new semiconductor plants and data centers.

### Electric power demand in Japan



Source: Created by J-POWER based on the Electric Power Investigation Statistics by the Agency for Natural Resources and Energy

### Trends in electric power demand by area



Source: "FY2024 Forecast on Electricity Demand Nationwide and by Regional Service-Area" by OCCTO

## Power Supply in Japan

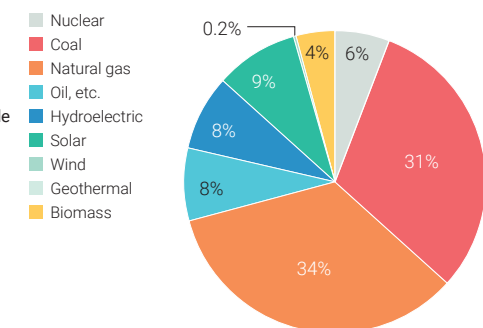
### Current situation

Conventionally, among the power generation facilities supplying electricity in Japan, baseload power sources were centered on coal-fired thermal, nuclear, and general hydroelectric power generation which are capable of continuous operation at relatively low unit cost, while LNG- and oil-fired thermal and pumped storage hydroelectric power generation served as intermediate load and peak load power sources to supplement fluctuating demand. In recent years, renewable energies came to account for nearly the majority of the electricity supply, especially during daytime hours, as a result of massive sourcing of renewable energies.

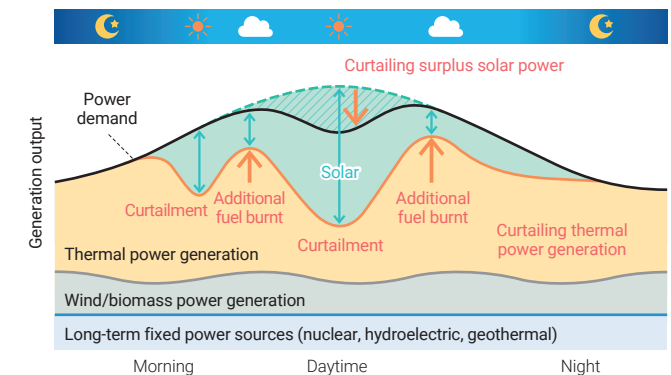
However, when electricity produced from solar power generation declines due to unfavorable weather or during nighttime, thermal power sources, including coal-fired power, serve as an intermediate load power source with adjustment capability in the power supply of the country. Therefore, thermal power sources still play a major role in terms of capacity to sustain the stable power supply in Japan, even though their capacity factors have been declining. Particularly, the adjustment capability of thermal power sources is becoming increasingly important, as renewable energy sources continue to expand.

[P.50 Our initiatives to shift the role of coal-fired power to an intermediate power source \(GENESIS Matsushima\)](#)

### Energy Mix in Japan (FY2022)



Note: Due to the processing of fractions, the total does not add up to 100.  
Source: Created by J-POWER based on Comprehensive Energy Statistics of Japan by the Agency for Natural Resources and Energy



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## Environment Surrounding the Domestic Electric Power Business

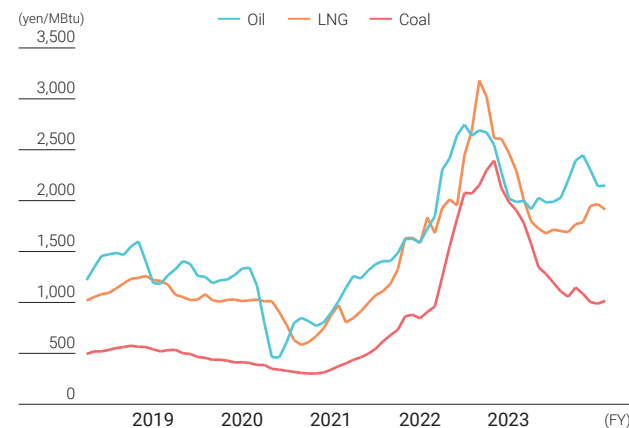
Meanwhile, to achieve a carbon-neutral society by 2050, we are requested a transition of future thermal power sources to zero CO<sub>2</sub>-emission thermal power. The transitions currently undertaken by companies, such as the mono/mixed combustion of hydrogen and ammonia and implementation of CCS and CCUS, require large-scale capital investment including the upstream interests development, as well as continuous technological development. The government has set out a policy of phase-out of inefficient coal-fired thermal power plants with supercritical (SC) or lower conditions by 2030.

[P.49 Our initiatives for transition of thermal power source \(7 thermal sites\)](#)

[P.51 Our initiatives for production of blue/green hydrogen and ammonia](#)

In addition to the challenges above, the global disruptions in resource prices triggered by the COVID-19 pandemic and Russia's invasion of Ukraine significantly contributed to the surge in the fuel prices of thermal power sources. Soaring fuel costs and the aforementioned falling capacity factors, are undermining incentives for operators to maintain or construct new thermal power sources.

### Trend in unit import prices of fuel

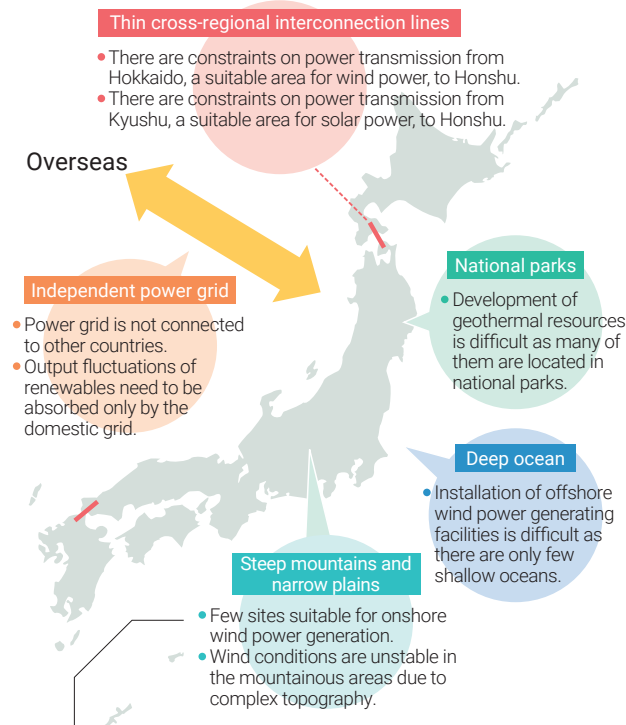


\*Fuel prices are converted from CIF prices in Ministry of Finance's Trade Statistics of Japan at the rate of 1 Btu = 252 Cal.

Future expansion of renewable energy is subject to geographical constraints, as Japan is a mountainous land with few shallow oceans. The key to the future expansion of renewable energy lies in the prompt development of promising sites based on the understanding of local communities and the effective utilization of existing sites. Offshore wind power, which is expected to be a large-scale, stable renewable energy source, has limited availability for development in the next few years partly due to capacity constraints in the power grid that connects promising sites with large demand areas.

[P.45 Our initiatives for renewable energy development](#)

[P.52 J-POWER Group's initiatives for enhancing power networks](#)



### Future outlook

The development of a range of systems has been progressing aiming at addressing future increases in power demand while also achieving a carbon-neutral society.

As a system designed to secure supply capacity, the bidding for the Long-Term Decarbonization Power Source Auction started in 2024. The system guarantees capacity revenues equivalent to the fixed costs of decarbonization power sources for a 20-year period as a rule, contributing to increasing the foreseeability of new investments in power sources. Qualifying decarbonization power sources include renewable energy as well as new nuclear power plants, and thermal power sources with an eye on future decarbonization.

[P.44 Long-Term Decarbonization Power Source Auction System](#)

In addition, Japan's GX Economy Transition Bonds, with future carbon pricing scheme as its redemption resource, have been issued to support the development of the framework for hydrogen and ammonia, as well as CCS and CCUS. For the use of hydrogen and ammonia, the framework plans to provide support for supply chain to compensate for the price difference with existing fossil fuels, as well as support for the development of storage facilities and other locations for use by multiple industries in Japan. As for the CCS/CCUS, generous public support will be provided for first movers to start operations by 2030.

[P.44 Trends in policies to achieve carbon neutrality](#)

For the enhancement of power grids connecting suitable areas for renewable energy sources with large demand areas, enhancement and new construction of grids, including the nationwide installation of HVDC, are being planned under the "Master Plan for Wide-Area Interconnected Grid" formulated in March 2023. As the implementation of the plan is expected to require an investment of several trillion yen, development of a funding environment, management of completion risk, and the formulation of a revenue scheme are under consideration.

[P.44 Master Plan for Wide-Area Interconnected Grid](#)



# J-POWER “BLUE MISSION 2050”

[See p45–p.53 for details of each initiative.](#)

## Three Action Plans

J-POWER “BLUE MISSION 2050” is a long-term strategy and roadmap for the J-POWER Group. We will advance the transition into a carbon neutral and hydrogen society, while solving social issues by stages concerning each of the three pillars of expansion of CO<sub>2</sub>-free power sources, creation of a zero-emission power supply, and power network stabilization and enhancement.

### Expansion of CO<sub>2</sub>-free power sources

- Further expansion of renewable energy
- Steady promotion of nuclear power generation

### Creation of a zero-emission power supply

- Conversion from thermal power generation to CO<sub>2</sub>-free hydrogen power generation
- Production and supply of CO<sub>2</sub>-free hydrogen
- CCS

### Power network stabilization and enhancement

- Stabilizing power network
- Power network enhancement

## Acceleration and Upcycling

We have set acceleration and upcycling as our priorities for implementation. Regarding acceleration, in addition to developing new renewable energies, we will also accelerate the expansion of renewable energy throughout Japan by providing power balancing capabilities through technologies such as hydrogen power generation, and by enhancing the power network. Upcycling refers to the transformation of existing management resources into high value-added assets through the application of new technologies. Specific initiatives include replacing hydroelectric and wind power facilities and introducing hydrogen, ammonia, and CCS technologies at thermal power plants.

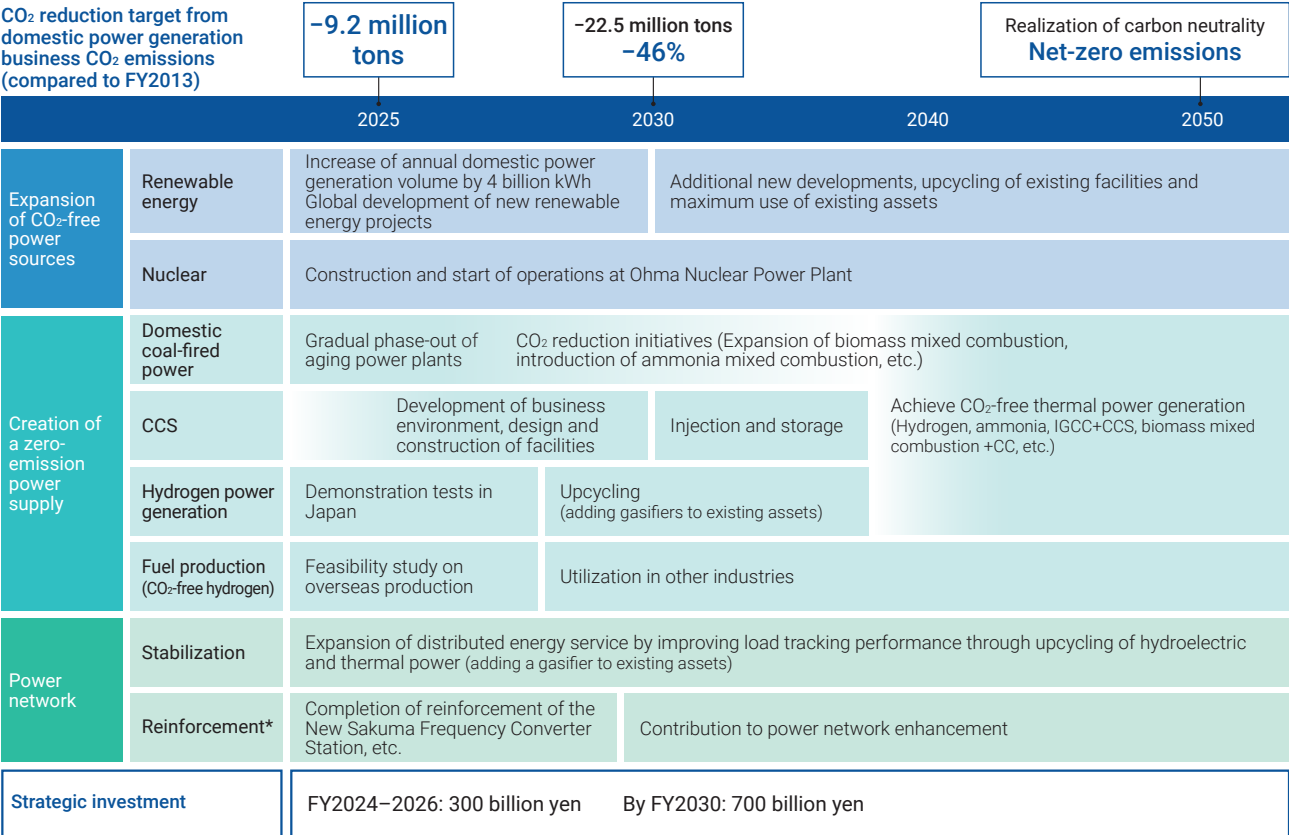
## Roadmap and CO<sub>2</sub> Emissions Reduction Targets

As part of the short- and long-term goals toward achieving carbon neutrality by 2050, we have set goals for eliminating CO<sub>2</sub> emissions from the Group's domestic power generation business\* by FY2025 and 2030.

This roadmap will be updated, reviewed, and refined as needed based changes in the assumptions including the Japanese government's GX policy (Strategic Energy Plan, global warming countermeasures, NDC, etc.), power demand-supply situation, power system design, and progress of industry development, etc.

\*Emissions from the J-POWER Group's domestic power generation business, which are covered by emissions reduction targets, account for approximately 80% of the Scope 1 emissions.

\*Expansion of renewable energies and operation of Ohma Nuclear Power Plant do not directly contribute to the reduction of the Group's CO<sub>2</sub> emissions from thermal power plants, but they do contribute to reducing emissions intensity, as well as CO<sub>2</sub> reductions at power generators and consumers, who are our customers.



\*The power network enhancement is to be implemented by J-POWER Transmission Network Co., Ltd.

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# Medium-Term Management Plan 2024–2026

## Positioning of the New Medium-Term Management Plan

We implemented the Medium-Term Management Plan 2021–2023 as the first step in the challenge of realizing the carbon neutrality we are aiming for in J-POWER “BLUE MISSION 2050.” As we have a prospect of achieving the milestones such as our 2030 CO<sub>2</sub> reduction target, we have formulated the new Medium-Term Management Plan 2024–2026 based on the outcomes and issues of the previous plan.

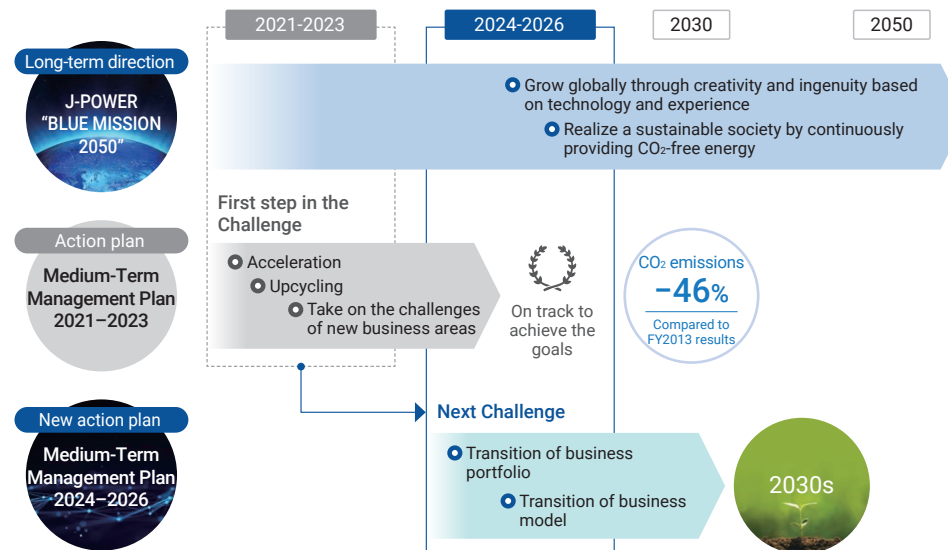
Under the new plan, we will work to advance the transition of our business portfolio and business models as “Next Challenge” based on our vision for 2030s.

### Transition of business portfolio

We will expand the use of CO<sub>2</sub>-free power sources including renewable energies and nuclear power as main power sources, while advancing the low carbonization and decarbonization of thermal power.

### Transition of business model

Rather than limiting profit generation to the holding of long-term assets and the power generation business, we will transition to business models that enable profits to be generated even over the short to medium term, including replacing assets to capture developer's profits and providing a wide range of energy solutions.



## Review of the Previous Medium-Term Management Plan (FY2021–2023)

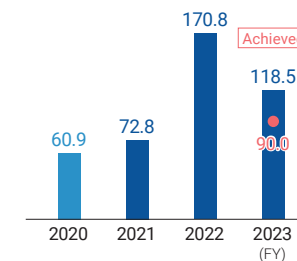
We achieved the financial targets in the previous Medium-Term Management Plan, including consolidated ordinary profit of 90 billion yen and a consolidated equity ratio of 30% or more. We also have a prospect of achieving our target of generating at least 1,500 MW (compared to FY2017) of electricity from new developments by beginning the operation of onshore wind farms and geothermal power plants and by advancing new project development in Japan and overseas.

In regard to CO<sub>2</sub> emissions, although factors such as equipment problems had an impact in FY2023, we made steady reductions toward our 2025 and 2030 targets.

For shareholder returns, although we raised the dividend amount three times, a steep rise in resource prices drove profit upward so the consolidated payout ratio fell below 30%.

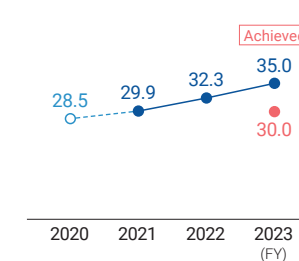
### Performance target (Billions of yen)

#### Consolidated ordinary profit



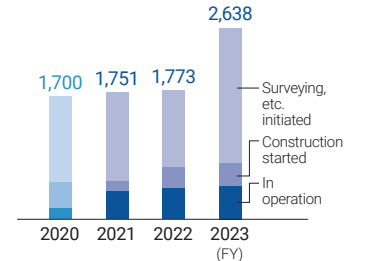
### Financial target (%)

#### Consolidated equity ratio



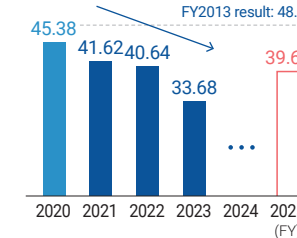
### Renewable energy (MW)

#### New development



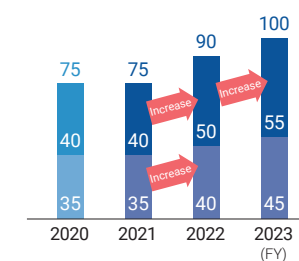
### CO<sub>2</sub> emissions (million t-CO<sub>2</sub>)

#### CO<sub>2</sub> emissions from the domestic power generation business



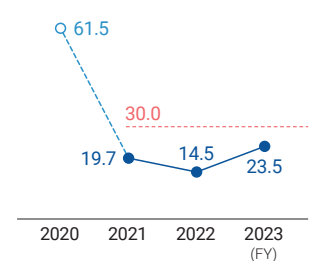
### Shareholder returns (yen)

#### Dividend per share



### Shareholder returns (%)

#### Consolidated payout ratio

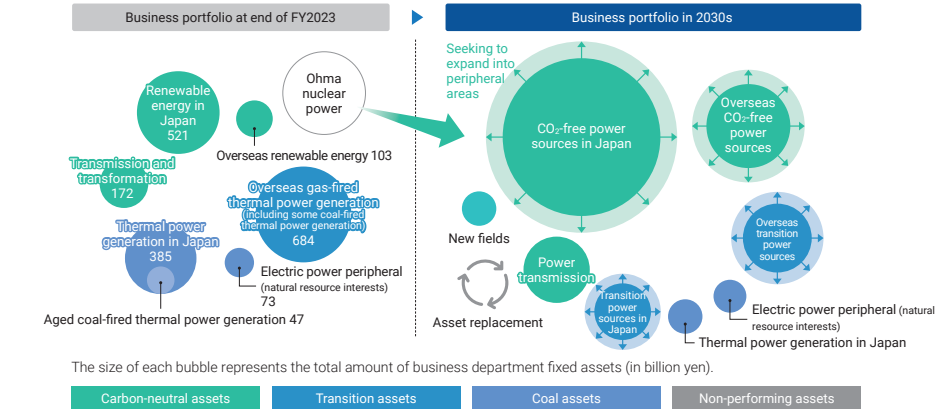




# Medium-Term Management Plan 2024–2026

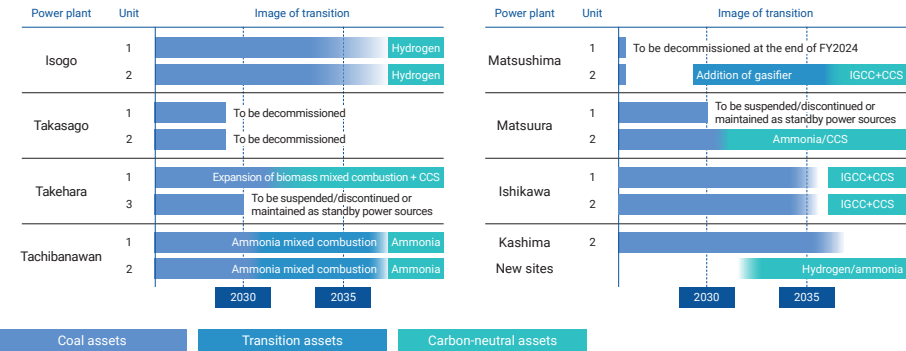
## Vision for the Business Portfolio in the 2030s

The J-POWER Group is aiming to transform our business portfolio while remaining conscious of capital efficiency so that in the 2030s, our business in Japan and overseas will be centered on carbon neutral assets. We will work to replace assets by developing renewable energies and nuclear power from Ohma Nuclear Power Plant, while transitioning our thermal power business in Japan to CO<sub>2</sub>-free thermal. We will also explore expansion into peripheral business areas in order to meet diverse needs related to the electric power business in a way that is not limited to electricity supply and asset ownership.



### Direction for thermal power transition

We have set our direction for thermal power transition on a site and unit basis. We will phase out inefficient coal-fired power plants and select the most appropriate replacement technology, including biomass, hydrogen, ammonia, or CCS, based on factors such as the characteristics of each site and the status of equipment. In this way we will contribute to the stable supply of electricity while reducing CO<sub>2</sub> emissions.



\*The plan will be updated, reviewed, and refined as needed based on changes in assumptions including the Japanese government's GX policy (Strategic Energy Plan, global warming countermeasures, NDC, etc.), power demand-supply situation, power system design, and progress of industry development, etc.

## Priority Items

Under the Medium-Term Management Plan 2024–2026, we will advance initiatives based on five priority items that will guide both our business portfolio and business model transitions.

### 1 Establishment and growth of sustainable revenue streams

• Renewable energy [P.45](#) • Overseas Business [P.36](#)

For renewable energy in Japan, we aim to increase the annual domestic power generation volume by 4.0 billion kWh by 2030 while also increasing revenue by maximizing environmental value through corporate PPA and other means.

Also, in the Overseas Business, we will enhance capital efficiency, primarily by capturing developer's profits associated with renewable and other energies, while aiming to expand in terms of business segment and area. We will advance a transition to business models that can generate profits over a wider range of time horizons.

### 2 Strategies for business portfolio in the 2030s

• Hydrogen/ammonia [P.50](#) • Power transmission [P.52](#)  
• Nuclear [P.48](#) • Innovation/new business areas [P.42](#)

In addition to advancing the GENESIS Matsushima Plan for realizing CO<sub>2</sub>-free hydrogen power generation, we will also work to secure a variety of decarbonizing technologies, including for the manufacture and utilization of hydrogen and ammonia to generate power, throughout the entire supply chain, from upstream to downstream, as well as CCS.

In the transmission and transformation business, we will contribute to the enhancement of wide-area power networks that support the growth of renewable energy, including by reinforcing Sakuma Frequency Converter Station. For the Ohma Nuclear Power Plant Project, we will advance the plan with safety as the highest priority. We will also aim to develop new profitable businesses through investment in and cooperation with startup companies.

### 3 Improvement of profitability and investment efficiency

• Department management and investment efficiency [P.24](#)

We will aim to realize the autonomous business management of each business department through the introduction of return on invested capital (ROIC) and to enhance the Group-wide ROIC by considering and implementing measures to improve capital efficiency based on the business characteristics of each department.

### 4 Enhancement of the Group's competitiveness

• Human resources [P.81](#) • DX [P.39](#)

We will cultivate diverse human resources by respecting individuals, ensuring opportunities to gain a wide-ranging operational experience, and establishing and enhancing human resources systems that support employees in taking on challenges. We will also aim to enhance the Group's competitiveness through DX promotion to generate the 3Ps "Yoryoku" (powers of potentiality, productivity and predictivity\*) in our human resources.

\***Power of potentiality:** The power of leeway created through the automation and streamlining of operations; **power of productivity:** The power of originality and ingenuity gained through the addition of senses and new functions; **power of predictivity:** The ability to predict and foresee based on data analysis

### 5 Deepening of ESG management

• Sustainability management [P.09](#)

We plan to use the ESG promotion structures we have established to date as a base for deepening ESG management, while implementing PDCA cycles.

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# Financial Initiatives

## Management Goals

- ✓ While the impact of climate change response on our business performance is unavoidable to a certain extent, we have set a future ROE target of 8% or higher.
- ✓ We aim to achieve our target of 90 billion yen in ordinary profit in FY2026, while keeping in mind the level of ROIC required for the future.

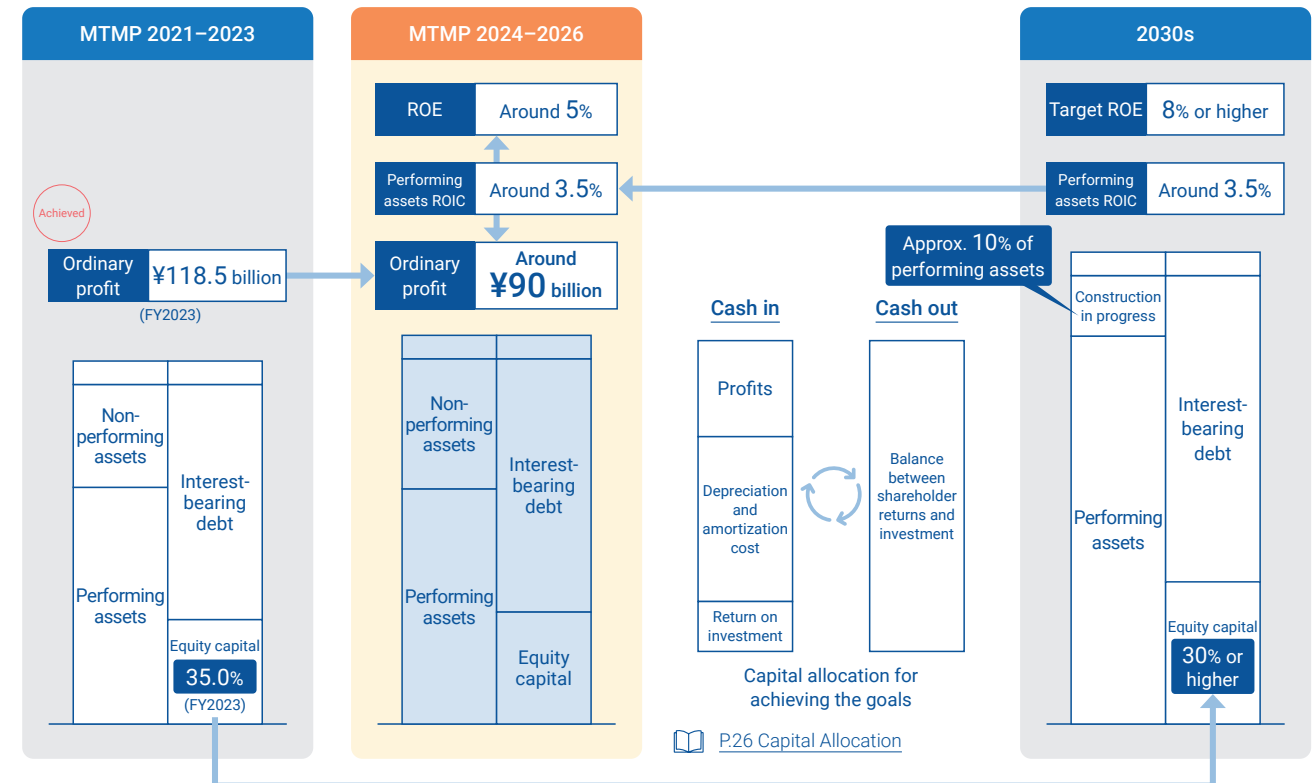
In the Medium-Term Management Plan ("MTMP") 2024–2026, we have set management goals to achieve an ROE of 8% or higher in the 2030s, after the start of operation of the Ohma Nuclear Power Plant.

The ratio of non-performing assets to performing assets (non-performing asset ratio) is expected to drop from the current 30% level to around 10% once the business portfolio transition, including operational start-up of the Ohma Nuclear Power Plant, will have made a certain progress. With this level of non-performing asset ratio, the ROIC of performing assets needed to achieve an ROE of 8% or higher is calculated to be around 3.5%.

Currently, electricity market prices are highly volatile due to resource price fluctuations and the massive introduction of renewable energy. Even under such circumstances, to achieve a performing assets ROIC of 3.5%, which is required in the 2030s, we have set target levels of ordinary profit and ROE for FY2026 at about 90 billion yen and 5%, respectively, as targets for the period covered by the MTMP.

We are not yet planning any reduction of equity capital, which is the denominator of ROE, because it is still difficult to foresee the absolute amounts of risk buffer and appropriate equity capital required for the Ohma nuclear power and thermal power transition at this stage. Meanwhile, we consider the equity ratio can be adjusted from the current 35% to about 30% as the required risk buffer is expected to decrease in the 2030s, when the aforementioned business portfolio transition will have made certain progress.

Under the MTMP 2024–2026, we will promote the transformation of our business and profit structure toward the 2030s, while practicing management that is conscious of capital efficiency.

Performing  
assets  
ROIC

=

NOPAT + Investment gain (loss) on equity method

Interest-bearing debt + Shareholders' equity – Non-performing assets

\*1 NOPAT includes non-operating income/loss and extraordinary income/loss which can be directly charged to business departments.

\*2 Non-performing assets = Construction in progress + Nuclear fuel, etc.

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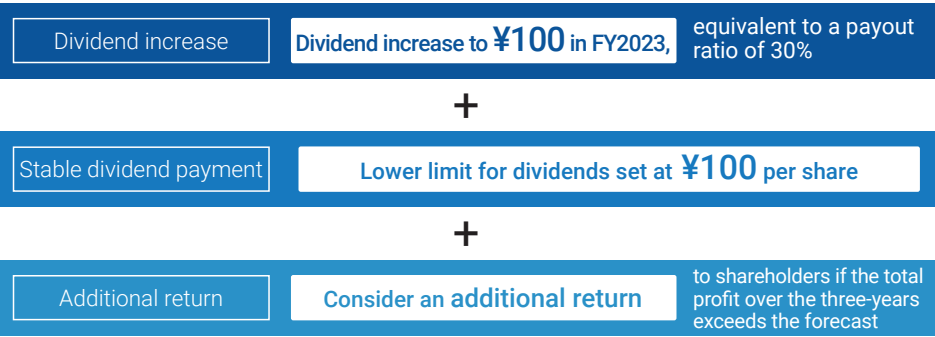
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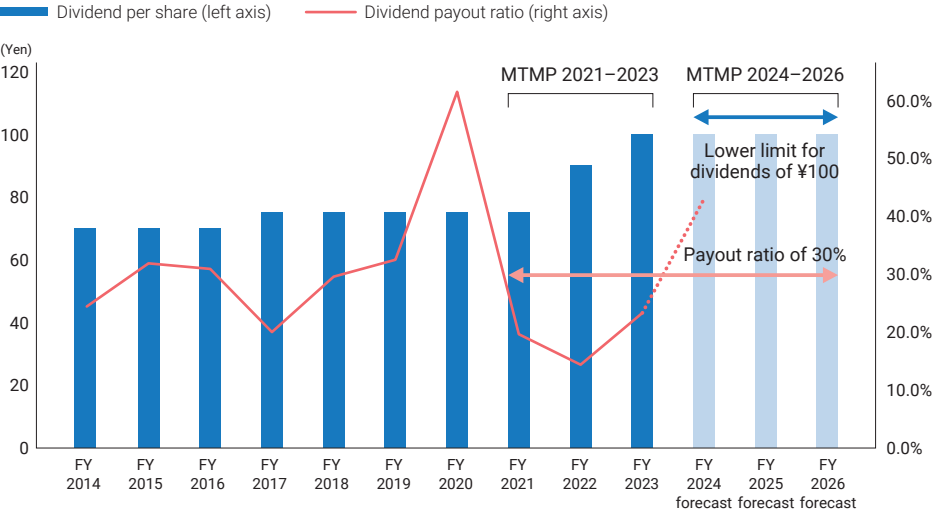
Financial Initiatives

Shareholder Returns

✓ **Basic approach to shareholder returns:** J-POWER will work to improve consistent and ongoing returns to shareholders based on profit levels, earnings projections, and financial conditions, with a target consolidated dividend payout ratio of 30%, excluding factors causing short-term profit fluctuations.



Trends in dividend per share and dividend payout ratio



FAQ

- Q** What are the factors causing short-term profit fluctuations?
- A** They include foreign exchange valuation gains and losses recorded as non-operating profit and loss, among others.
- Q** What do you think are the reasons behind not achieving the targeted 30% consolidated payout ratio during the previous MTMP period?
- A** In response to the higher-than-forecast profits during the previous MTMP period, we increased dividends three times, from 75 to 100 yen per share, in line with the basic policy of stable and ongoing dividend payments. The Board of Directors discussed the capital market's demand for agile shareholder returns of one-time profits, and decided to consider an additional return of profits to shareholders under the new MTMP if profit exceeds the forecast.
- Q** On what basis will you increase dividend to 100 yen per share?
- A** We have set the dividend per share at 100 yen, an amount equivalent to a consolidated dividend payout ratio of 30%, using ordinary profit of 90 billion yen we achieved under the previous MTMP as a basis for calculation.
- Q** Could there be a change in the amount of dividends if profit exceeds or falls below the forecast significantly during the MTMP period?
- A** For the three years covered by the current MTMP, we have set 100 yen per share as the lower limit for dividends. We will consider increasing dividends if profit is expected to exceed the forecast on an ongoing basis, as our basic policy calls for stable and ongoing dividend payments.
- Q** What do you mean by the "total profit over the three years exceeding the forecast" in the consideration of an additional return of profits?
- A** We will consider an additional return of profits to shareholders when there are any factors contributing to achieving ordinary profit in excess of the 90 billion yen target, such as extraordinary profit and profits from coal mining arising from higher resource prices.
- Q** How will you make an additional profit return?
- A** We have not yet decided any specific method at this stage.



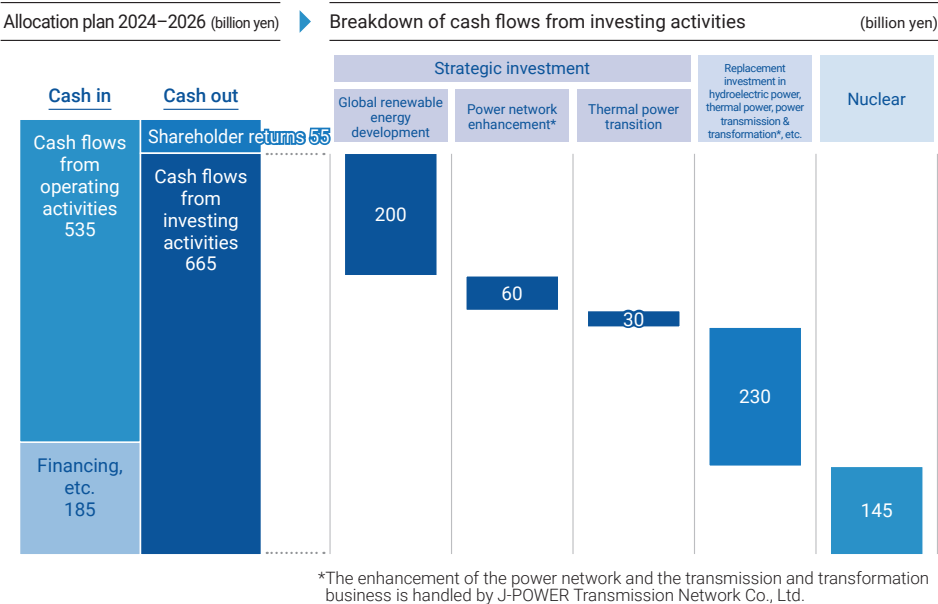
# Financial Initiatives

## Capital Allocation

- ✓

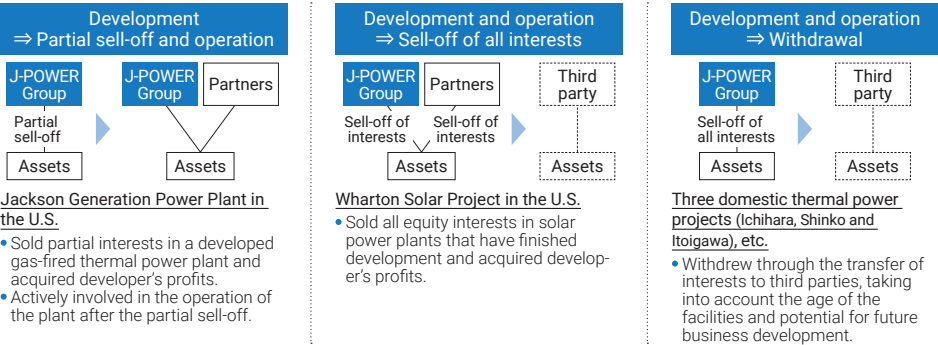
We plan to make strategic investments of approximately 300 billion yen over three years, with an eye toward 700 billion yen of strategic investments by FY2030.
- ✓

We will prioritize investments in carbon-neutral assets at home and abroad to support sustainable growth, while considering financing efficiency and profitability.



### Efforts to improve capital efficiency

We are working to improve capital efficiency by not only holding assets for the long term, but also replacing our business portfolio as appropriate, for example, by selling assets and reinvesting in new projects using the proceeds from the sale. Through the introduction of return on invested capital (ROIC), we will also create a mechanism to measure capital efficiency for each business and take appropriate measures for improvement.



# Interview with the Officer in Charge of Accounting and Finance



**Our Medium-Term Management Plan shows our target of 8% ROE at the very least by the 2030s, as well as how we will solve financial issues to achieve this**

**Hideaki Kato**  
Director and Executive  
Managing Officer

## Medium-Term Management Plan

### Aiming for an ROE of 8% or higher by the 2030s by achieving a performing assets ROIC of 3.5%

First of all, I would like to talk about the financial target levels outlined in the Medium-Term Management Plan 2024–2026 ("MTMP").

Currently, our Group consolidated equity ratio is around 35%, which considerably exceeds the 30% target in the previous medium-term management plan and represents the highest levels in the electric utility industry. However, looking at the profits generated in regard to this robust equity capital, our ROE is below 8%, which is the minimum level of return demanded by the capital markets. As we tackle the challenges of constructing the Ohma Nuclear Power Plant and realizing a transition in thermal power, one of the main points in our MTMP from a financial perspective is how we achieve the returns required by the capital markets.

In regard to ROE, it is important that we do not focus solely on profit levels that make up the numerator of the fraction. We must also carefully assess the equity levels that make up the denominator. Although we have abundant equity capital at present, we also have plans for large-scale investment in projects such as the construction of the Ohma Nuclear Power Plant and transition of thermal power, which will be accompanied by an increase in interest-bearing debt. We expect this will lead to a decrease from our current equity ratio at some point. Also, the environment around the Domestic Electric Power Business is becoming highly volatile due to electricity system reforms, so it is difficult to ascertain the appropriate equity ratio for the present moment.

Based on the above, for the future financial target levels in this MTMP, we set 8% or higher as the minimum level of ROE we should be clearing based on an equity ratio of 30% or more in the 2030s, when we should have a certain prospect of resolving the aforementioned challenges. We will need a performing assets ROIC of about 3.5% to achieve this level, so we have set the target of ¥90 million in consolidated ordinary profit for FY2026, the final year of the MTMP, in recognition of the level of performing assets ROIC required.

For FY2024, we have announced a forecast consolidated ordinary profit\* of ¥62 billion, which factors in a decrease in profit of about ¥18 billion associated with the long-term suspension of operation of No. 1 Unit at Tachibanawan Thermal Power Plant. By FY2026, the final year of the MTMP, we want to have recovered from this long-term suspension and also raised earning power in order to achieve our management goals.

\*Forecast as of the release on May 9, 2024

 [P.24 Management Goals](#)

## Shareholder Returns and Stock Price

### Delivering highly predictable shareholder returns and making business more transparent

We recognize that shareholder returns are an area where we are not in line with the expectations of the capital market and that we have a lot of work to do to address this. During the previous medium-term management plan period, we earned a

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## Interview with the Officer in Charge of Accounting and Finance

large amount of one-time profit from Australian coal mining interests, and this led to a lot of critical feedback that our shareholder returns were not achieving the targeted 30% consolidated payout ratio and therefore not meeting the expectations of the capital markets. Taking into account this turn of events and our achievement of the previous plan's business result targets, we raised the year-end dividend for the fiscal year ended March 31, 2024, by ¥10 per share. We have also clarified our approach to shareholder return in the new plan by setting ¥100 per share as the lower limit for dividends and stipulating that we will consider an additional return with a consolidated payout ratio of around 30% if the total profit over the three years exceeds the forecast.

Next, in regard to stock price levels, while an anticipated increase in electricity demand and the resumption of nuclear power plant operations is driving the PBR of some electric power companies upward, our PBR has remained low at 0.4x. We recognize that the background behind this, in addition to the aforementioned low levels of ROE, is that there are two major opaque factors affecting PER. These are our thermal power transition plan amid the anticipated shrinking of coal-fired thermal power generation as part of the response to climate change, as well as the undetermined time frame for the start of operations at Ohma Nuclear Power Plant. Neither of these issues can be solved in the short term, but we have included as much explanation in the MTMP as we are able to at present with the aim of reducing the uncertainty of the outlook, even if only by a little. For thermal power plants in Japan, the plan clarifies our planned direction for the transition by site and unit. Regarding the Ohma Nuclear Power Plant Project, it demonstrates our direction of considering the use of the Long-Term Decarbonization Power Source Auction System as a way to make investment recovery more predictable.

 [P.25 Shareholder Returns](#)

### Enhancing Capital Efficiency

#### Aiming to increase returns while lightening the balance sheet

Until now, we have operated our business based on business models that involve developing and investing in-house, and

then continuing to hold the developed assets long term. However, when looking at the degree of returns we can extract from our enlarged balance sheet, we recognize that we need to practice management that is highly conscious of capital efficiency.

The Electric Power Business has a business model which basically involves recovering large investments over long periods. However, taking a capital efficiency perspective, we need to focus on recovering investments early, including by selling partial interests after development to acquire developers' profits while working to lessen the burden on the balance sheet. We have already started carrying out this kind of initiative at the Jackson Generation Power Plant in the U.S. and other sites. Going forward, we will work to develop and grow the renewable energy business in Japan while also focusing on improving capital efficiency, including by partially selling off interests in a similar way and by using alliances.

The main point is we need to break away from our previous norm, which was holding a 100% interest in the assets we develop throughout their entire lifespan.

 [P.26 Capital Allocation](#)

### Enhancing Earning Power

#### Aiming to capitalize properly on the value we provide

Enhancing earning power is an important and endless theme that is always being discussed by management. An issue that is particularly significant at present is that thermal power has shifted from a baseload power source to an intermediate load power source. We need to communicate with customers to ensure they understand that products and services related to an intermediate load power source that functions as regulatory power offer a different value to what we have provided before, so that we can receive fair prices for these products and services.

Also, in regard to renewable energy, currently there is no monetary valuation for environmental value in Japan, and the government is setting the price of non-fossil fuel certificates at the lowest possible levels. Additionally, based on the current technology, Japan's land constraints mean there are not many places suitable for renewable energy development,

both on land and sea. Movement is underway to realize this limited renewable energy development as soon as possible and there is growing demand from forward-looking customers who want to receive renewable energy under long-term agreements as they highly recognize the environmental value. We are working to conclude direct agreements (corporate PPAs) with these customers in order to monetize environmental value.

Whether it be thermal power or renewable energy, we will capitalize properly on the value of the products and services we provide. We see this as the first step to enhancing earning power.

### Message to Investors

#### We intend to thoroughly disclose our thinking and initiatives and to maintain dialogue

We understand that stakeholders in the capital markets have opinions about issues facing the Group, namely, the prolonging of the construction period in the Ohma Nuclear Power Plant Project and the anticipated shrinking of coal-fired thermal power generation. Therefore, we recognize that it is extremely important to create opportunities for dialogue.

As a power generation business operator, we will maintain a stable supply of electricity while steadily working to become carbon neutral. We will also engage with our investors by thoroughly disclosing and explaining the initiatives we carry out, as well as the thinking behind them.

Your diverse opinions are valuable input into the formulation and execution of our management plans. Going forward, we look forward to continuing our relationships in a way that facilitates close communication.



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# Financial and Non-Financial Highlights

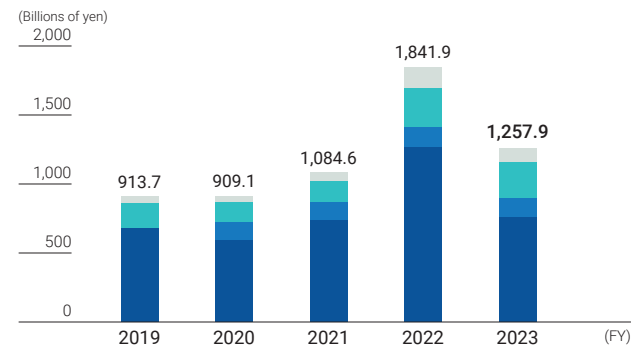
These are key indicators of the Company's financial and non-financial performance.

## Financial Highlights

### Consolidated Operating Revenue

- Domestic Electric Power Business (Renewable Energy)
- Overseas Electric Power Business
- Electric Power-Related Business and Other Business

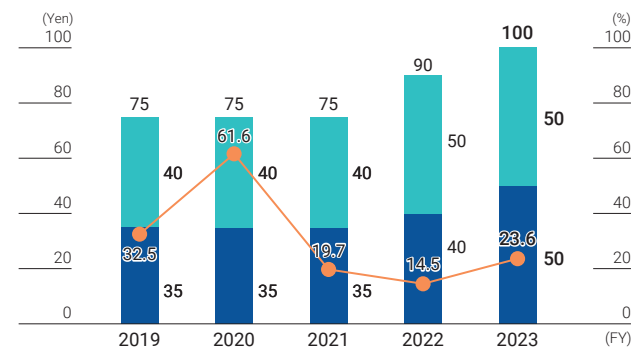
\*Operating revenue from renewable energy is not disclosed for FY2019.



In FY2023, operating revenue decreased 31.7% year on year to 1,257.9 billion yen. This was mainly due to a decline in electricity sales volume resulting from lower load factor of thermal power plants and lower electricity sales prices in the electric power business, despite an increase in electricity sales volume in the Overseas Business primarily attributable to the full-year operation of the Jackson Generation Power Plant in the U.S., which started operations in May 2022.

### Dividend per Share and Dividend Payout Ratio

- Interim (left axis)
- Year-end (left axis)
- Dividend payout ratio (right axis)

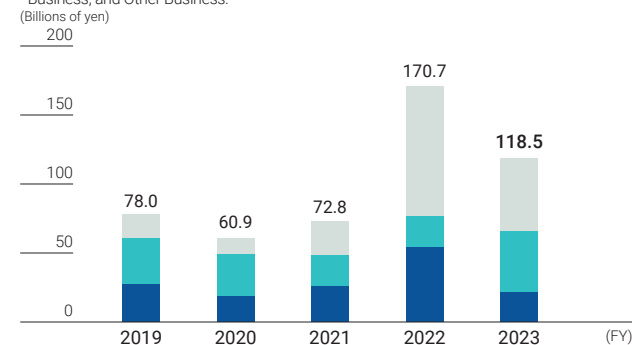


J-POWER will strive to enhance stable, ongoing returns to shareholders considering the level of profit, earnings forecasts, and its financial condition with a consolidated payout ratio of around 30%, excluding factors causing short-term profit fluctuations. We raised the dividend amount by 10 yen per share at the end of FY2023 and set the dividend of 100 yen per share as the lower limit during the period covered by the Medium-Term Management Plan 2024–2026.

### Consolidated ordinary profit

- Domestic Electric Power Business
- Overseas Electric Power Business
- Electric Power-Related Business and Other Business

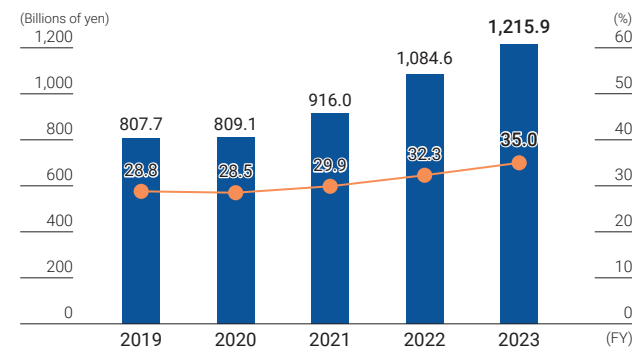
\*In FY2024, reportable segments have been changed to Power Generation Business, Transmission and Transformation Business, Overseas Business, Electric Power Related Business, and Other Business.



In FY2023, ordinary profit decreased 30.6% year on year to 118.5 billion yen due to a decrease in profit of a subsidiary with coal mining interests in Australia, lower gross profit from the Japan Electric Power Exchange (JEPX) sales and outages of thermal power plants. We achieved our ordinary profit target of 90.0 billion yen set forth in the Medium-Term Management Plan 2021–2023.

### Shareholders' Equity and Shareholders' Equity Ratio

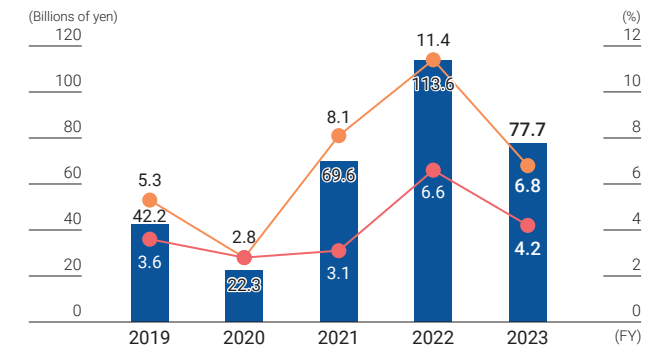
- Shareholders' equity (left axis)
- Shareholders' equity ratio (right axis)



In the Medium-Term Management Plan for FY2021–2023, we set a target of consolidated equity ratio at 30% or more, which we achieved ahead of schedule in FY2022. Shareholders' equity ratio for FY2023 was 35%.

### Profit Attributable to Owners of Parent, ROE, ROA

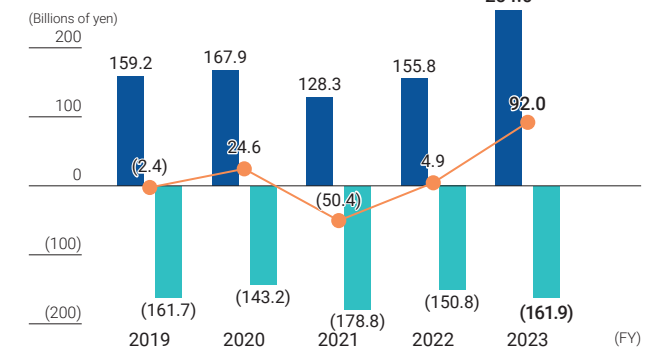
- Profit attributable to owners of parent (left axis)
- ROE (right axis)
- ROA (excl. construction in progress) (right axis)



As was the case with ordinary profit, profit attributable to owners of parent also decreased in FY2023. The decrease in FY2020 was due to losses resulting from the surge in electricity market prices, as well as the payment of income taxes due to the fact that tax effect accounting was not applied to the losses incurred by consolidated subsidiaries.

### Cash Flows

- Cash flows from operating activities
- Cash flows from investing activities
- Free cash flows

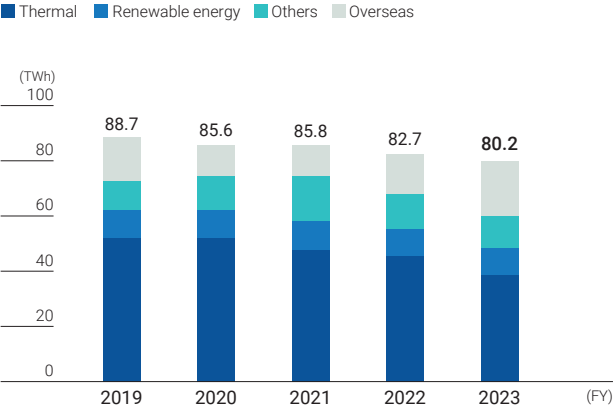


Free cash flows for FY2023 increased by 87.1 billion yen year on year to 92.0 billion yen. This was due to an increase in cash flows from operating activities attributable to a shift from increases to decreases in trade receivables and inventories, despite a decrease in profit before income taxes.

Financial and Non-Financial Highlights

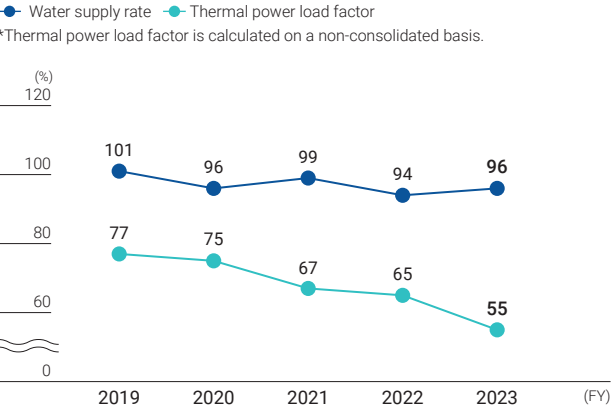
Non-Financial Highlights

Electricity Sales Volume



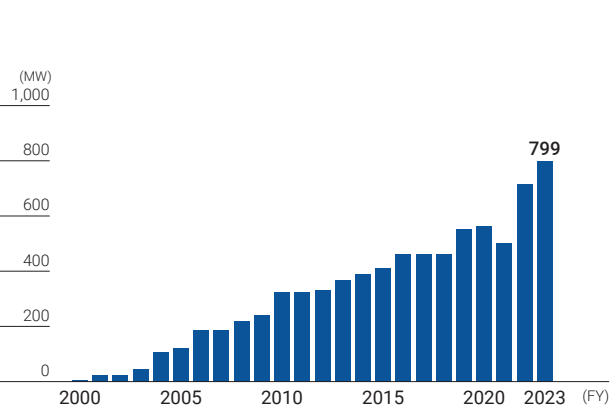
In FY2023, electricity sales volume decreased in the Electric Power Business as the load factor of thermal power plants fell short of that of the previous fiscal year, despite an increase in electricity sales volume in the Overseas Business. "Others" represents the sales volume of electricity procured from JEPX , etc.

Water Supply Rate/Thermal Power Load Factor\*



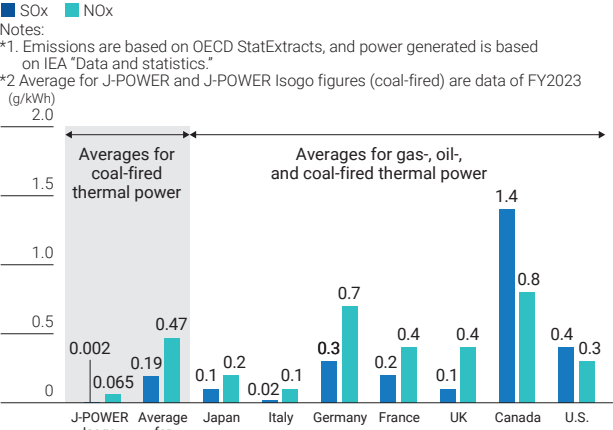
Water supply rate depends on factors such as weather conditions. In FY2023, the load factor of thermal power plants decreased during the daytime of low-demand periods due to increased power generation from renewable energy sources in western Japan and the restart of nuclear power plants. We aim to minimize the impact of lower load factor on profits and losses through initiatives to improve operational performance of power plants, including lowering minimum loads, and operational shutdown based on supply and demand forecast.

Wind Power Generation Capacity

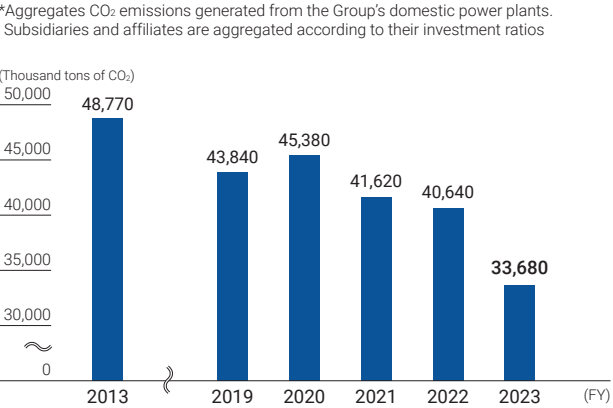


The replacement of existing sites started in FY2021. In FY2023, four domestic farms with capacity of approximately 85 MW began operations through new construction and replacement of existing facilities.

International Comparison of SOx and NOx Emissions Intensity for Thermal Power Generation

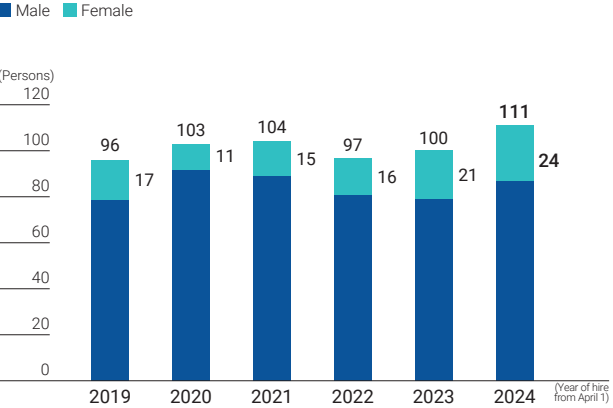


CO<sub>2</sub> Emissions from Domestic Electric Power Business



Compared to FY2013, we aim to reduce CO<sub>2</sub> emissions by 9.2 million tons by FY2025 and 22.5 million tons by FY2030.

Number of New Graduates Hired by J-POWER



In addition to steady hiring for the purpose of sustainable growth, the Company is taking on the challenge of ensuring diversity in order to create a workplace that promotes continuous innovation. We have set a goal of doubling the ratio of women in new hires.

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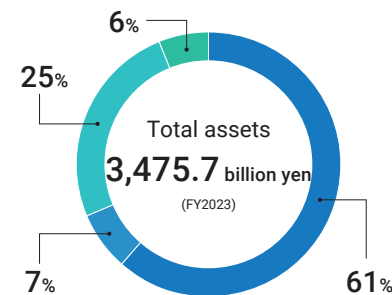
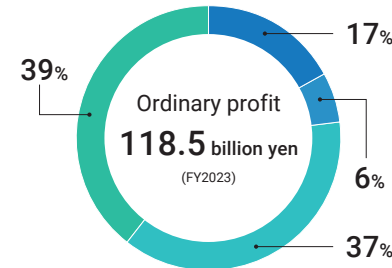
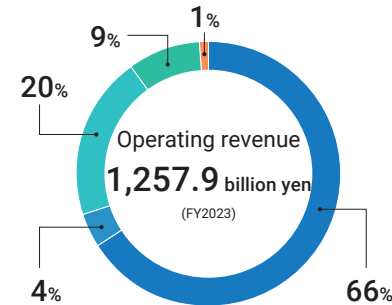
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## J-POWER Group Businesses

## Business Overview by Segment

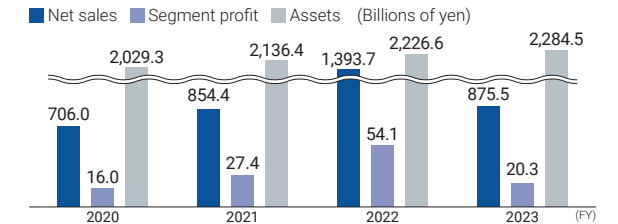
- Power Generation Business
- Transmission and Transformation Business
- Overseas Business
- Electric Power-Related Business
- Other Business



Note: Each segment's net sales, ordinary profit, and total assets are percentages of the simple sums of the unadjusted segment figures.

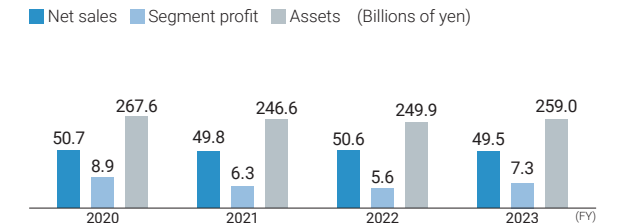
## Power Generation Business

The Group engages in power generation, employing various energy sources including renewable energy and thermal power, and electric power retailing in collaboration with partner companies in Japan.



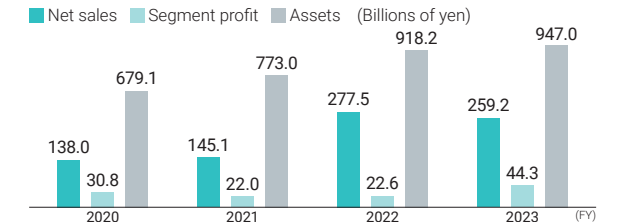
## Transmission and Transformation Business

The Group engages in power transmission and transformation that contribute to the wide-area operation of the entire Japanese power grid.



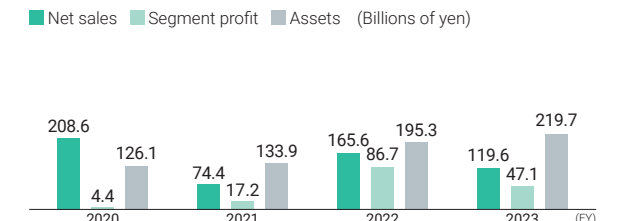
## Overseas Business

The Group engages in power generation and consulting businesses overseas.



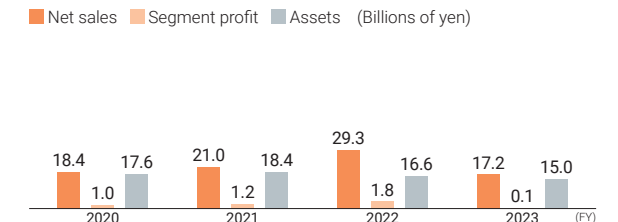
## Electric Power-Related Business

The Group engages in businesses which support the smooth and efficient execution of the power generation business, including the ownership of coal mining interests and the importing and transportation of coal.



## Other Business

We operate information communication businesses and environment-related businesses that leverage the Group's know-how and management resources. We are also investing in and working with startup companies to develop new businesses in the future.





## J-POWER Group Businesses

### Power Generation Business

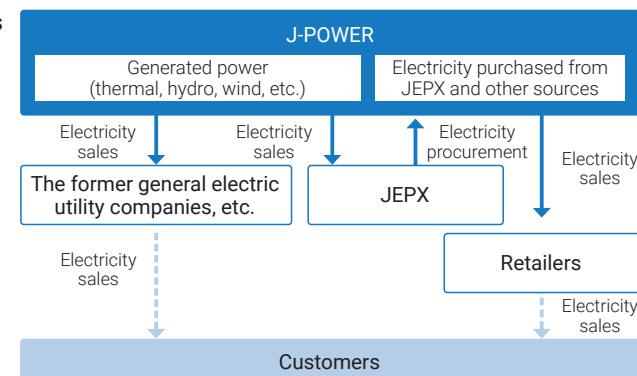
#### Recognition of Business Environment

- Opportunities**
  - Widespread use and expansion of CO<sub>2</sub>-free power sources and CO<sub>2</sub>-free hydrogen aimed at achieving carbon neutrality
  - Expansion of new markets and forms of selling
- Risks**
  - Greater earnings fluctuations resulting from increased volatility in resource and electricity market prices
  - Earnings deterioration due to CO<sub>2</sub> emissions regulations
  - Higher operating costs due to inflation
- Strengths**
  - Well-balanced power source portfolio consisting of renewable energy and thermal power
  - Comprehensive technological capabilities that can be executed within the Group from development to operation
  - The highest level of engineering and execution capabilities gained from involvement in global development
  - Relationships of trust with local communities

#### Overview of Power Generation Business

J-POWER Group generates electricity from our power sources, including renewable energy and thermal power, and sells it to the former general electric utility companies (EPCOs) and the Japan Electric Power Exchange (JEPX) to ensure a stable supply of electricity in Japan. J-POWER also sells electricity procured from JEPX and other sources to retail electricity suppliers.

##### ● Flow of electricity sales



In principle, the structure of sales charges to EPCOs consists of a baseline charge based on the value of power generation capacity (kW) and a metered charge based on the quantity of electricity sold (kWh). For the portion equivalent to fuel costs, which account for the majority of the metered charge for thermal power generation, we have introduced a system that reflects fluctuations in market conditions related to fuel procurement as appropriate.

The sales price of the electricity procured from JEPX is determined through discussions with retailers and is revised in a timely manner.

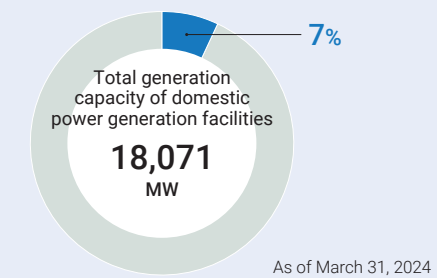
#### Net sales/Segment profit/Assets

(Billions of yen)

FY	2020	2021	2022	2023
Net sales	706.0	854.4	1,393.7	875.5
Segment profit	16.0	27.4	54.1	20.3
Assets	2,029.3	2,136.4	2,226.6	2,284.5

Note: Segment profit is ordinary profit. The total amounts of each segment's net sales, profit, and assets are not equal to consolidated operating revenue, consolidated ordinary profit, and total assets in each fiscal year due to adjustments such as the elimination of inter-segment transactions.

#### Share of power generation capacity in Japan



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## J-POWER Group Businesses

## Power Generation Business

## Renewable Energy

## Hydroelectric Power

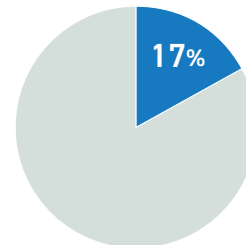
Over the past 70 years or so, the Group has engaged in the development and operation of hydroelectric power plants. Hydroelectric power plants can be started quickly and their output is adjustable, and pumped storage hydropower plants play an important role as a regulating power source to absorb surplus power and compensate for power shortages. With no available land left for large-scale developments in Japan, the Group is engaged in increasing the generation output and power generation volume through the development of small hydroelectric power plants and the comprehensive renewal of main facilities.

Share of hydroelectric power  
generation capacity

No. 2 in Japan

8,577 MW

(As of March 31, 2024)



Tagokura Dam

## Wind Power

The Group began engaging in the wind power generation business early in Japan. Even now, we are engaged in many development projects while also advancing facility upgrades at its initial operation sites.

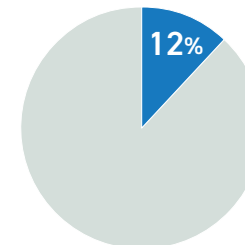
In terms of offshore wind power, we will proceed with the construction of the Kitakyushu Hibikinada Offshore Wind Farm Project to start commercial operation in FY2025, utilizing the expertise gained through our participation in the Triton Knoll Offshore Wind Farm Project in the United Kingdom. In addition, we will work on the development of an offshore wind power project off the coast of Oga City, Katagami City, and Akita City, Akita Prefecture, for which J-POWER was selected as a business operator in December 2023.

Share of wind power generation  
capacity

No. 2 in Japan

560 MW

(As of March 31, 2024)



Nikaho No. 2



A rendering of Kitakyushu Hibikinada  
Offshore Wind Farm

## Geothermal Power

Geothermal energy is a domestically produced CO<sub>2</sub>-free energy source, and utilized as a baseload power source that is capable of stable power generation without being affected by weather conditions. The Group operates the Wasabizawa Geothermal Power Plant and Onikobe Geothermal Power Plant, and also started the operation of the Appi Geothermal Power Plant in March 2024. Currently, we are conducting research for geothermal energy development in the Takahinatayama region in Miyagi Prefecture.



Onikobe Geothermal Power Plant

## Solar Power

The Group is currently constructing the Kitakyushu Hibikinada Solar Power Plant and Himeji Oshio Solar Power Plant. We are also promoting the on-site PPA model, where we install solar power generation equipment on the roofs or in open spaces of customers' facilities to supply power, thereby contributing to their needs for self-consumption of renewable energy.



J-POWER Group Businesses

Power Generation Business

Thermal Power

Coal is a crucial resource for energy security in Japan, a country with limited energy resources, as it can be easily stored and there is no disproportionate concentration of mining sites in specific regions. Geopolitical risks are thought to be lower for coal than for other fuels because it is mostly obtained from politically stable countries like Australia and Indonesia, which are the major exporters of the coal used at the Group's thermal power plants.

In the design and operation of our power plants, we contribute to the stable supply of electric power while curbing emissions of air pollutants such as SOx and NOx using our advanced technologies, and reducing CO<sub>2</sub> emissions by employing the highest-efficiency technologies available at the time of construction.

In addition, the Group is promoting mixed combustion of biomass fuel made from sewage sludge and wood materials to reduce CO<sub>2</sub> emissions. Since 2022, we have been working on 10% mixed combustion of biomass fuel at the Takehara Thermal Power Plant New Unit No. 1. From the perspective of sustainability and stably procuring biomass fuel, the Group is also engaged in the business of producing sustainable biomass fuels such as woody fuels employing forest offcuts, which are underutilized resources in Japan.

Furthermore, by upcycling our existing coal-fired thermal power plants toward decarbonization, we aim to convert to hydrogen power generation. The first step toward this goal is our work in Nagasaki Prefecture on the GENESIS Matsushima Plan.

[P.50 GENESIS Matsushima Plan](#)

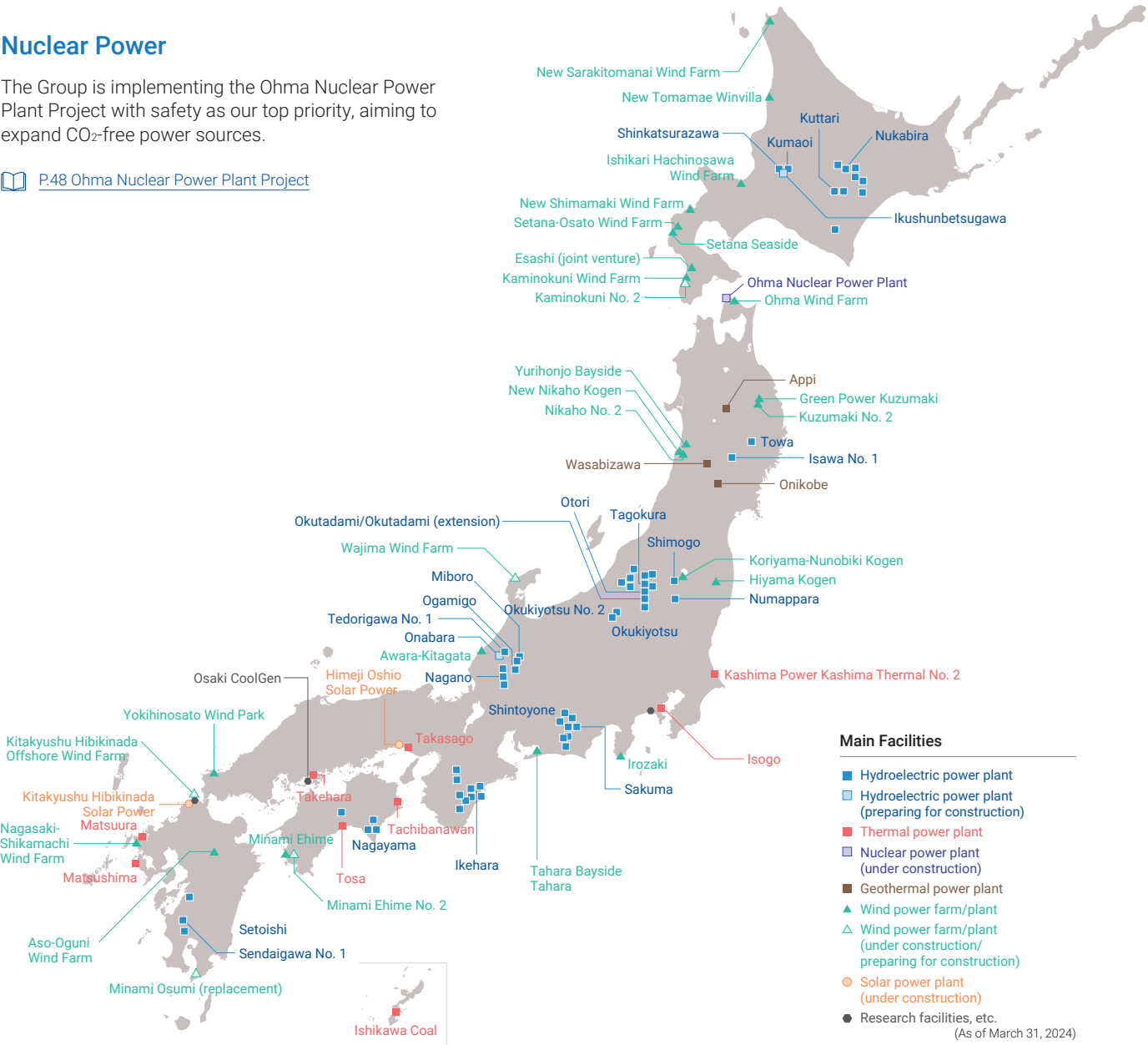


Takehara Thermal Power Plant New Unit No. 1

Nuclear Power

The Group is implementing the Ohma Nuclear Power Plant Project with safety as our top priority, aiming to expand CO<sub>2</sub>-free power sources.

[P.48 Ohma Nuclear Power Plant Project](#)





## J-POWER Group Businesses

### Transmission and Transformation Business

#### Recognition of Business Environment

- Opportunities

- Expansion of renewable energies
  - Growing need to achieve carbon neutrality
- Risks

- Impact of intensifying natural disasters on facilities
  - Aging of facilities
- Strengths

- Comprehensive technological capabilities accumulated through over 70 years of experience in the construction, maintenance, and management of power transmission and transformation facilities
  - Relationships of trust with local communities

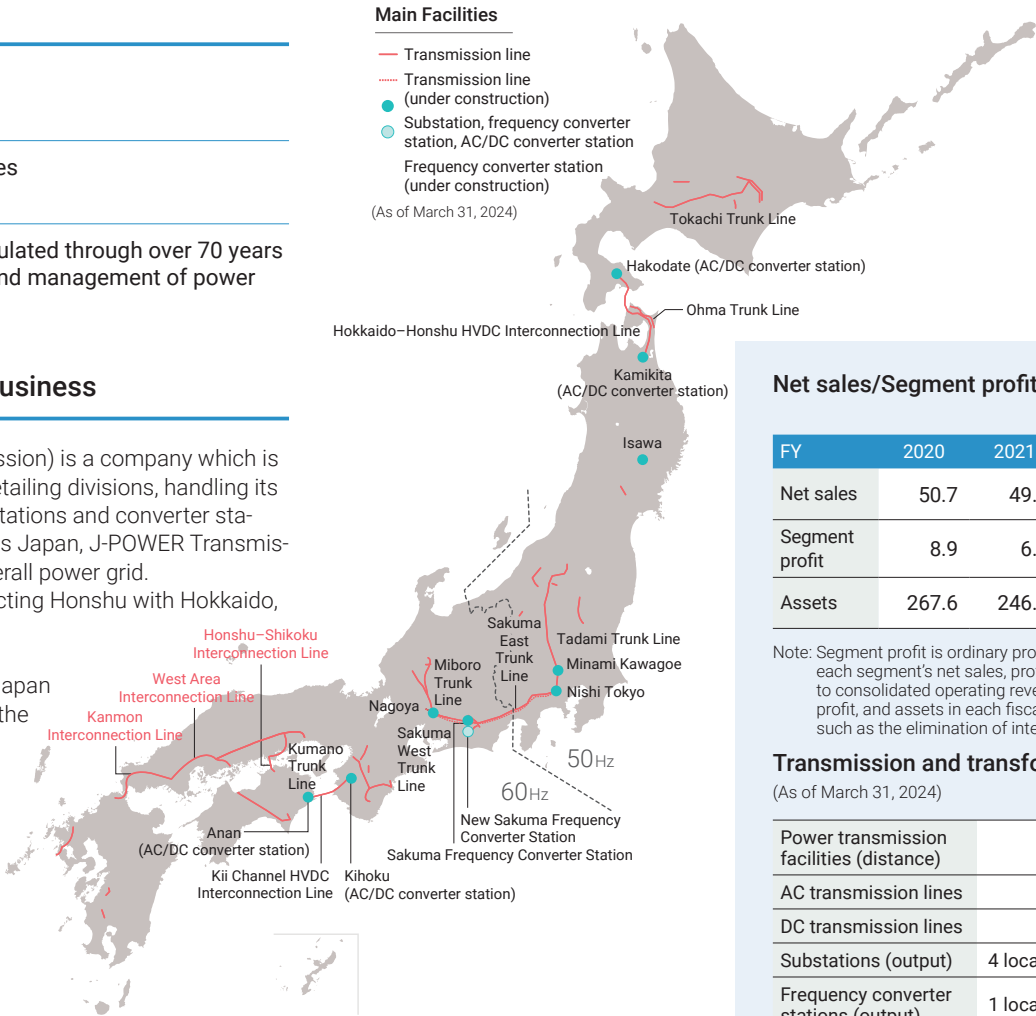
#### Overview of Transmission and Transformation Business

J-POWER Transmission Network Co., Ltd. (J-POWER Transmission) is a company which is independent of the J-POWER Group's power generation and retailing divisions, handling its transmission business from a neutral position. With nine substations and converter stations, and approximately 2,400 km of transmission lines across Japan, J-POWER Transmission contributes to the cross-regional operation of Japan's overall power grid.

In particular, cross-regional interconnection facilities connecting Honshu with Hokkaido, Shikoku, and Kyushu, and the Sakuma Frequency Converter Station, which was the first in Japan to enable the flexible exchange of power with different frequencies between eastern Japan (50 Hz) and western Japan (60 Hz), are important in enabling the cross-regional operation of power grid in Japan.

#### High Voltage Direct Current (HVDC)

To deliver renewable energy to major consumption areas from Hokkaido, Tohoku, Kyushu, and other regions where it is being introduced and expanded, the master plan for the electric power network calls for the development of submarine DC transmission line. J-POWER Transmission has a high level of expertise in submarine DC cables gained from its experience in the installation and operation of the Hokkaido–Honshu HVDC Interconnection Line and Kii Channel HVDC Interconnection Line.



#### Net sales/Segment profit/Assets

	(Billions of yen)			
FY	2020	2021	2022	2023
Net sales	50.7	49.8	50.6	49.5
Segment profit	8.9	6.3	5.6	7.3
Assets	267.6	246.6	249.9	259.0

Note: Segment profit is ordinary profit. The total amounts of each segment's net sales, profit, and assets are not equal to consolidated operating revenue, consolidated ordinary profit, and assets in each fiscal year due to adjustments such as the elimination of inter-segment transactions.

#### Transmission and transformation facilities

(As of March 31, 2024)

Power transmission facilities (distance)	2,410.2 km	
AC transmission lines	2,143.0 km	
DC transmission lines	267.2 km	
Substations (output)	4 locations	4,487,000 kVA
Frequency converter stations (output)	1 location	300,000 kW
AC/DC interconnection stations (output)	4 locations	2,000,000 kW

## J-POWER Group Businesses

### Overseas Business

#### Recognition of Business Environment

- Opportunities

  - Strengthened international initiatives to achieve carbon neutrality
  - Growing power demand primarily in emerging economies
- Risks

  - Increasingly volatile resource prices
  - Tighter international environmental regulations
- Strengths

  - Project development capabilities
  - Project promotion capabilities
  - Ability of management to control risk and replace assets in response to changes in the business environment to increase profitability and sustainability

#### Overview of Overseas Business

##### Overseas consulting business

Leveraging the experience and technical prowess acquired through its domestic electric power business, the J-POWER Group conducts businesses including basic design study, feasibility studies, design, construction management, and transfer of environmental technologies on development of power sources and transmission and transformation facilities around the world. Since its first project in 1962, the Group has conducted 376 projects in 64 countries and regions.

(As of March 31, 2024)

##### Overseas power generation business

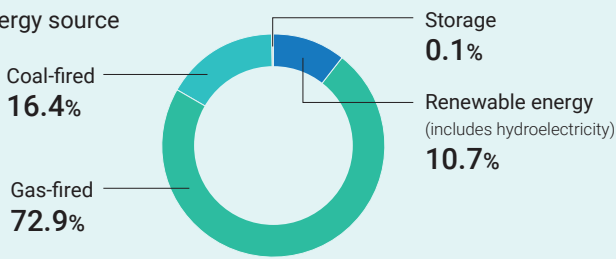
The J-POWER Group has actively identified and developed overseas power generation projects by leveraging its experience, credibility, and networks cultivated through its domestic operations and overseas consulting business.

When the Group first began its overseas power generation business in 1997, it primarily participated in the construction of power plants or plant operations through relatively small-scale investment. The Group has gradually expanded the business, shifting from acquiring interests in existing profitable projects to greenfield development, mainly in Thailand, the U.S., China, and other Asian countries. More recently, the Group has been seeking to expand development opportunities and acquire developer's profits by

participating in projects from the initial stage of development and selling interests in power plants and other projects.

Going forward, the overseas power generation business will engage in project development, primarily in the area of renewable energy, to further optimize our business portfolio.

Facilities by energy source



Net sales/Segment profit/Assets

(Billions of yen)

FY	2020	2021	2022	2023
Net sales	138.0	145.1	277.5	259.2
Segment profit	30.8	22.0	22.6	44.3
Assets	679.1	773.0	918.2	947.0

Note: Segment profit is ordinary profit. The total amounts of each segment's net sales, profit, and assets are not equal to consolidated operating revenue, consolidated ordinary profit, and assets in each fiscal year due to adjustments such as the elimination of inter-segment transactions.

Results of overseas power generation business (As of March 31, 2024)

In operation	7 countries	37 projects	7,712 MW owned capacity
Of which, renewable energy projects*	5 countries	12 projects	826 MW owned capacity
Under construction/development	4 countries	7 projects	970 MW owned capacity

\*Include storages

J-POWER Group Businesses

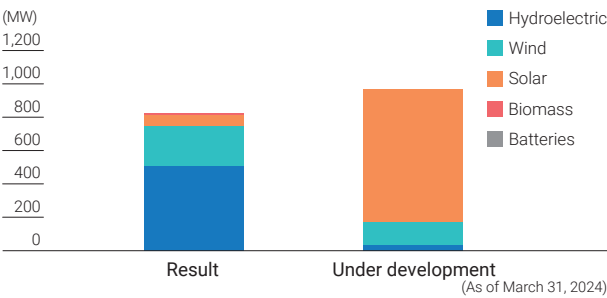
Overseas Business

Renewable energy

The Group is focusing on the development of renewable energies overseas. We participated in the Triton Knoll Off-shore Wind Farm Project (U.K.) from the construction stage, and are utilizing the expertise gained from this project in offshore wind power generation projects in Japan. In Australia and the U.S., we have been involved in multiple renewable energy development projects. In Australia, we have acquired shares in Genex Power Limited\*, a developer of pumped storage, wind power, and solar power generation projects, contributing to the expansion of renewable energy in the country. In the U.S., we have been participating in the development of a solar power project since 2020.

\*J-Power acquired 100% of the issued shares of Genex Power Limited as of July 31, 2024 and made it a wholly owned subsidiary.

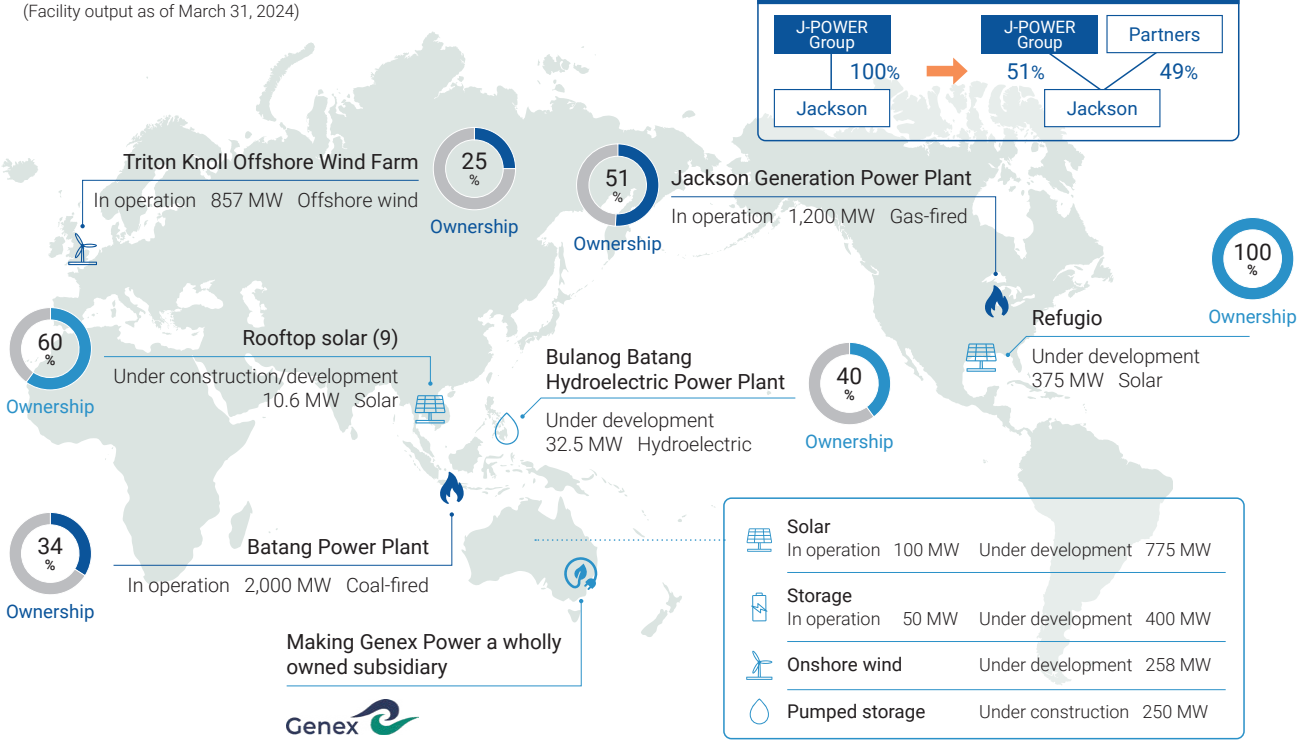
Overseas renewable energy (owned capacity)



Portfolio management

Through managing the portfolio of interests we hold by each power source type and based on the characteristics of project areas and other factors, we are working to improve capital efficiency and transition our business model in response to changes in the business environment. In addition to interests in renewable energy power sources, for regions where power plant assets are highly liquid, we sell our interests in such assets as soon as there is a prospect of finishing the development or starting the operations, thereby recovering our investment early.

Major projects in recent years



Business model transition

Target business	Business segment	Business area	Timing of profit generation	Capital efficiency
Decarbonization	Collective strength	Expansion of priority areas	Multiple time horizons	Improved capital efficiency
Renewable energy	Investment	Southeast Asia	Short-term	Restructuring of asset/ business portfolios
Gas-fired (incl. the replacement of existing facilities)	Independent/joint development	United States	Medium-term	
Distributed resources for solutions	Consulting	Australia	Long-term	
	O&M service	Europe & Middle East		



## J-POWER Group Businesses

### Electric Power-Related Business

#### Recognition of Business Environment

- Opportunities

  - Low-cost and stable power supply
  - Growing interest in energy security
- Risks

  - Increasingly volatile resource prices
  - Tighter international environmental regulations
- Strengths

  - Stable and long-term fuel procurement based on diversified sources
  - Proven technological capabilities cultivated through the electric power business, which requires high reliability

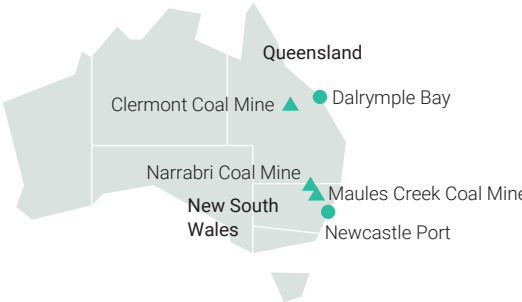
#### Overview of Electric Power-Related Business

The Electric Power-Related Business engages in businesses that complement the power generation and transmission and transformation businesses, and contribute to their smooth and efficient business execution.

#### Investments in coal mines

We have been investing in Australian coal mines since 1980 and currently hold interests in three coal mines in order to provide consistent, long-term supplies of high-grade coal as fuel for thermal power generation.

In the face of increasingly volatile resource prices, we are seeking to optimize the entire supply chain, spanning from fuel procurement to power generation.



#### Coal mining projects (As of December 31, 2023)

Coal mine	Location	Outport	2023 sales volume	Vested interest	Coal production start
Clermont	Queensland	Dalrymple Bay (Hay Point Port)	11.40 million tons	22.2%	2010
Narrabri	New South Wales	Newcastle Port	4.93 million tons	7.5%	2012
Maules Creek	New South Wales	Newcastle Port	8.10 million tons	10.0%	2014

#### Telecommunications network business

Communication networks are essential infrastructure for operating power plants, as well as transmission and transformation facilities, and thus require high level of reliability. J-POWER Telecommunication Service Co., Ltd. undertakes the construction, maintenance, and management of the J-POWER Group's all telecommunications facilities for electric power systems, contributing to the stable supply of power.

#### Net sales/Segment profit/Assets

(Billions of yen)				
FY	2020	2021	2022	2023
Net sales	208.6	74.4	165.6	119.6
Segment profit	4.4	17.2	86.7	47.1
Assets	126.1	133.9	195.3	219.7

Note: Segment profit is ordinary profit. The total amounts of each segment's net sales, profit, and assets are not equal to consolidated operating revenue, consolidated ordinary profit, and assets in each fiscal year due to adjustments such as the elimination of inter-segment transactions.

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# Promotion of DX

## Realization of DX 3S+ D and Enhancement of Corporate Value

The J-POWER Group strives to realize "DX 3S +D" by drawing Yoryoku\* powers from our employees through the promotion of digital transformation (DX). With "Data (data driven)" as the foundation, this "DX 3S+D" vision aims to enhance the three elements supporting the company and its employees, i.e., "Safety (safety and security)," "Smartness (efficiency and immediate response)," and "Strength (Earning power)," and to create new values. The realization of "DX 3S+D" is an objective that will contribute to achieving a carbon-neutral society by 2050, in addition to resolving material issues such as enhancement of our business foundation and respect for people, and will lead to the creation of financial and social corporate value.



\*Power of potentiality: The power of leeway created thorough the automation and streamlining of operations

Power of productivity: The power of originality and ingenuity gained through the addition of senses and new functions

Power of predictivity: The ability to predict and foresee based on data analysis

## Direction of DX Promotion toward FY2025

In promoting DX, we have been carrying out various initiatives guided by the DX Roadmap for 2030 and the Medium-Term Plan for DX Promotion (DX Medium-Term Plan), a two-year rolling plan that lays out specific measures to achieve the roadmap. Under the DX Med-Term Plan started in FY2022, we have achieved certain results, including the utilization of drones and AI, as well as the development of data infrastructure.

As the DX Med-Term Plan moved into the Phase II in FY2024, we have redefined three priority measures to further accelerate the promotion toward FY2025: (1) thorough business process transformation, (2) establishment of a platform for data utilization, and (3) development of DX human resources and a digital environment.

Specifically, we have launched initiatives to consolidate and streamline administrative back-office operations, and to create a digital twin of power facilities that makes full use of AI and XR technologies, as well as to develop a remote work environment that enables remote and automated operations. In addition, we will work to thoroughly transform our business processes through, for example, prompt implementation of generative AI, introduction of a next-generation ERP system, and revamp of IT systems that have become obsolete.

By attaining these objectives, we aim to achieve the quantitative targets of time effect (300 thousand hours per year) and monetary effects (3 billion yen per year).

	Item	Initiatives	Specific measures
Priority measures for the DX Med-Term Plan Phase II	(1) Thorough business process transformation	<ul style="list-style-type: none"> <li>Measures to ensure the safety of workers</li> <li>Mechanisms to reduce burdens on on-site workers</li> <li>Digital-based business process transformation</li> </ul>	<ul style="list-style-type: none"> <li>Introducing AI, VR/AR, digital twin</li> <li>Efforts for smart industrial safety</li> <li>Implementing generative AI and other cutting-edge technologies in operations</li> </ul>
	(2) Establishment of a platform for data utilization	<ul style="list-style-type: none"> <li>Visualizing, systematizing and streamlining data</li> <li>Developing data management tools and systems</li> <li>Enterprise performance management (ERM) tools</li> </ul>	<ul style="list-style-type: none"> <li>Shared data platform (Data smart)</li> <li>Standard rules/data governance</li> <li>Management dashboard, etc.</li> </ul>
	(3) Development of DX human resources and a digital environment	<ul style="list-style-type: none"> <li>Developing an environment that helps create Yoryoku on-site</li> <li>Measures that contribute to location-free operations</li> <li>Making digital tools available at all times and standardizing their quality</li> <li>Developing and generating DX human resources</li> </ul>	<ul style="list-style-type: none"> <li>Next-generation remote work tools</li> <li>Implementing devices and applications</li> <li>Training for DX core/highly specialized human resource development</li> </ul>
Targets	Quantitative targets (by FY2025-end)	<ul style="list-style-type: none"> <li>Time effect: 300 thousand hours per year</li> <li>Monetary effect: 3 billion per yen year</li> </ul>	<ul style="list-style-type: none"> <li>Measures listed in (1) to (3) above</li> </ul>



In January 2024, we were certified as a "DX-certified Operator" under the certification initiative established by the Ministry of Economy, Trade and Industry (METI).

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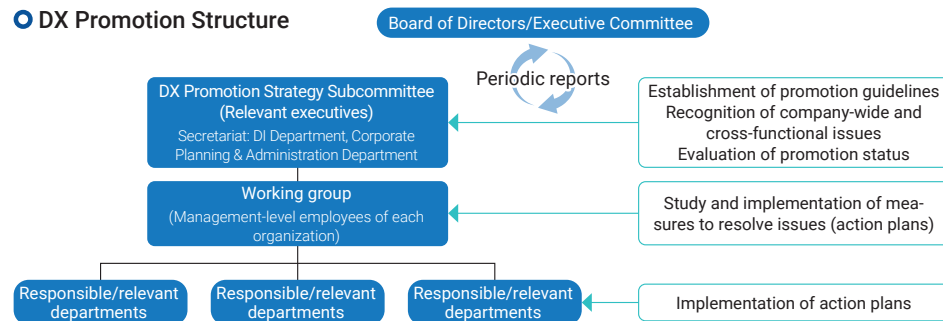
## Promotion of DX

## Promotion Structure

The DX Promotion structure consists of two levels: the DX Promotion Strategy Subcommittee and a working group. The DX Promotion Strategy Subcommittee discusses the direction of Group-wide DX promotion, recognition on cross-sectional issues and measures to resolve such issues, and formulates roadmaps and medium-term plans. The working group discusses how to materialize and implement these measures.

The status of DX promotion is periodically reported to the Board of Directors and the Executive Committee for discussion to identify issues and revising existing strategies, which will be then incorporated into the new direction of promotion. As such, this cycle enables flexible responses to changes.

## DX Promotion Structure



## DX Human Resource Development

We define DX human resources in accordance with the Digital Skill Standards established by Ministry of Economy, Trade and Industry (METI) and the Information-technology Promotion Agency, Japan (IPA), and have a DX training system in place to meet the needs, experience, and degree of DX progress of each employee, from executives to general employees.

## Layer definition: Training audience

## Required skills and description



DX management skills
Demonstrate <b>DX strategy planning skills</b> when managing a company or organization
Highly specialized skills
Promote measures leveraging a <b>high level of expertise</b> in data, security, AI, etc.
DX basic and applied skills
Lead the <b>department's DX</b> by implementing digital business implementation and basic data analysis
DX literacy
Understand DX and <b>use digital technology and applications in business</b> <b>Research personally</b> unfamiliar terms

FY2024

Seminars and educational activities for management and manager-level employees  
Planning to provide training to develop DX core human resources and highly specialized human resources

FY2023 FY2024

Basic human resource development training (e-learning)  
Provided to all employees (approx. 6,000 persons)/training will continue to be provided

In FY2023, we provided training for all Group employees to improve their DX literacy. Going forward, we plan to train several hundred employees in two categories by FY2025: "DX core human resources" for taking initiative in DX of each department as business architects (sophisticating and streamlining in-house operations), and "highly specialized human resources" for solving issues by utilizing highly specialized technologies such as data analysis, security, and AI. We also plan to hold seminars for management and manager-level employees and conduct educational activities.

## Case Examples

## J-POWER Group DX Exchange Meetings

The "J-POWER Group DX Exchange Meetings" are held to share examples of DX initiatives and the latest technologies within the Group. In FY2023, a meeting was held at J-POWER's headquarters, while connected online with local operating units, to share best practices in the form of exhibits and presentations, which include advanced facility operation and maintenance work using drones, quadruped robots, etc., and optimization of energy trading through data utilization. In addition, a lecture on ChatGPT was given by an outside speaker.

DX Exchange Meetings are also held at local operating units, facilitating active communications among employees for DX promotion.



Meeting at J-POWER's headquarters



Meeting at a local operating unit

## Efforts to sophisticate facility operation and maintenance

Aiming to sophisticate the operation and maintenance of electric power facilities, we utilize drones and robots to obtain images and numerical data of facilities, and perform AI-based analysis of the acquired information. In particular, we are developing drones for autonomously capturing images of electric wires to be used for transmission lines and overhead ground wires that are difficult to photograph by drones, as well as AI-based image analysis applications specialized to detect deformities in overhead power lines.

Incorporating these technologies into maintenance and inspection operations will reduce work at height to improve safety, while also enabling an efficient inspection process, in which high-definition images are easily captured by drones and abnormalities are visualized by AI. With these, we can expect to increase the time efficiency of overhead power line inspections, reducing working hours by 50% or more compared to the conventional method.



Development staff: Yusuke Ohta (left), Taro Ishii (right) in charge of AI & Advanced Technology Task, DX Promotion Office, Digital Innovation Department



Transmission line inspection drone under development



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# Technology Development & Intellectual Property/Promotion of Innovations

## J-Power Group's Technological Development

The Group's research and development activities focus on the two items of "creating new value" in order to promote the realization of J-POWER "BLUE MISSION 2050" and "strengthening existing businesses" in order to respond to changes in the business environment and continuously strengthen competitiveness while utilizing knowledge cultivated in the electric power business.

Through the development of these technologies, we will contribute to achieving material issues such as supply of energy and response to climate change.

### Priority items and major areas of research

#### Creating new value

- CO<sub>2</sub>-free hydrogen production
- CO<sub>2</sub> capture, utilization, and storage
- Green oil
- Coal and biomass gasification

#### Strengthening existing businesses

- Wind power generation technology
- Remote monitoring using satellite image data
- Optimization and digitalization of maintenance and operation of power plants, grid simulation technology, etc.

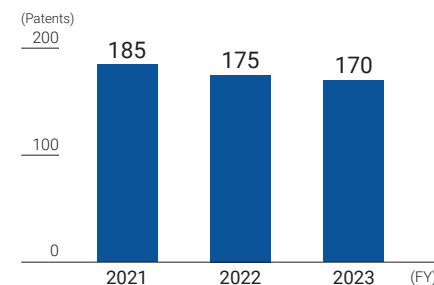
Realization of J-POWER  
"BLUE MISSION 2050"

Adaptation to changes in the business  
environment and sustainable enhancement of  
competitiveness

## Intellectual Properties

For outcomes achieved in technological development and other activities, we continuously seek to acquire their intellectual property by, for example, filing for patents. We hold 170 patent rights in Japan as of the end of FY2023.

### Number of patents held in Japan

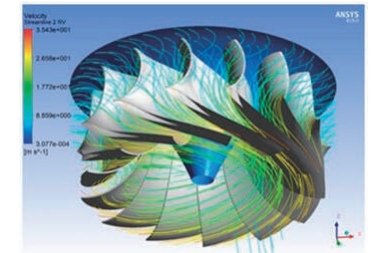


### Examples of patents acquired through technological development and other activities

#### Shape design technology for water turbine blades

Through in-house design, we have developed a new type of water turbine with high power generation efficiency. The complex shape of a water turbine blade has been optimized by employing fluid dynamics technology to investigate the causes and to reduce losses from water turbines. The turbine will be introduced as the first commercial system to Suezawa Power Plant, which is now under repowering work (scheduled to start operations in 2024). By increasing the efficiency of power generation from renewable energy sources, we expect the technology to contribute to the realization of a decarbonized society.

\*Patent No. 6271658: Francis turbine

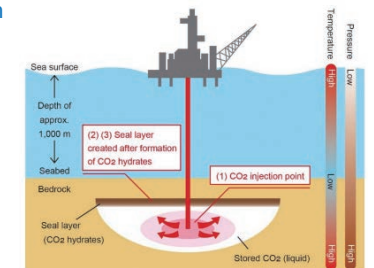


#### Novel CO<sub>2</sub> storage technology using hydrate\* mechanism

CO<sub>2</sub> injected into the sub-seabed bedrock in a low-temperature, high-pressure environment will form CO<sub>2</sub> hydrates, which themselves serve as a sealing layer to prevent leakage of CO<sub>2</sub>. The technology is expected to contribute to increasing the number of suitable locations and capacity for CO<sub>2</sub> storage in the waters around Japan.

\*Hydrate: A clathrate hydrate with a lattice-like crystal structure, formed through the bonding of two or more molecules, including water (H<sub>2</sub>O).

\*Patent No. 7149712: Underground Storage Method for Carbon Dioxide and Underground Storage Device Therefor



### Topics Voice of the researcher

For CO<sub>2</sub> storage, underground storage in aquifers\*, which requires a geological structure as found in conventional oil and gas fields, is becoming increasingly adopted worldwide. However, it is uncertain whether storage in aquifers alone can provide sufficient storage locations in Japan, a country with few oil and gas fields. To cope with such situations, we have devised and patented a CO<sub>2</sub> underground storage method using the "hydrate mechanism" which emerges in a low-temperature, high-pressure environment, taking advantage of the deep waters in the seas around Japan. When put into practical use, we expect this method to greatly increase Japan's CO<sub>2</sub> storage capacity, in addition to aquifer storage. The main research objective is to confirm through experiments and simulations that hydrated CO<sub>2</sub> will not clog the gaps in the bedrock and cause CO<sub>2</sub> leakage. We are working toward the practical application of the technology by getting over hurdles one by one.

\*A structure with an impermeable layer (cap rock) that impervious to water or gas, physically trapping CO<sub>2</sub> during buoyancy-driven ascent.



**Takaomi Tobase**  
Specially Appointed  
Researcher  
Chigasaki Research  
Institute, Research &  
Development Dept.

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## Technology Development and Intellectual Property/Promotion of Innovations

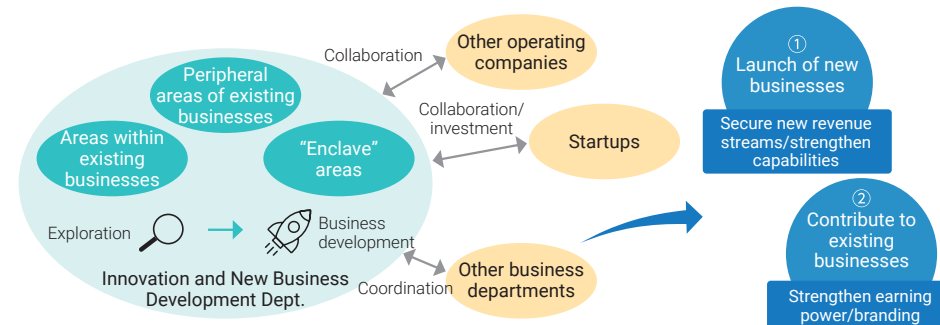
### Promotion of Innovations

The J-POWER Group is taking on the challenge of promoting innovations and capturing new business domains by integrating the assets and know-how, which were accumulated mainly in the power generation business, with the technologies and ideas of startup companies and other organizations. So far, we have invested in two funds and 12 startups.

In 2018, we set up an organization within the Corporate Planning & Administration Department to take charge of new business exploration, and have worked to build external networks and strengthen internal collaboration. In April 2024, we evolved this organization to newly establish the Innovation and New Business Development Department.

### Mission

The Innovation and New Business Development Department undertakes exploration and business development activities in a wide range of areas, encompassing existing businesses and their peripheral and “enclave\*” areas. Focusing mainly on decarbonization and carbon neutrality, decentralization, and digitalization, the department aims to launch new businesses that will become the company's new revenue streams, and to expand and evolve existing businesses.



\*New businesses non-contiguous with existing fields

### Major portfolio startups

#### PowerX, Inc. (Domain: storage batteries)

In addition to producing high-performance and competitively priced Japan-made battery products, PowerX is promoting a battery tanker project in which batteries will be mounted on ships to carry electricity. We are considering using the storage battery technology and services developed by PowerX, and supplying our renewable energy power.



#### WOTA CORP. (Domain: decentralized/water treatment)

Aiming for fundamental solutions to water-related environmental issues, WOTA has developed WOTA BOX, a portable decentralized water reuse system that can be used during water supply outages, and WOSH, a water reuse hand-wash stand, among other products. WOTA's WOTA DX is used in our on-site water purification plants to ensure optimal operation and monitoring of the plants.



#### AREANO INC. (Domain: decentralized/local community engagement)

AREANO mainly operates the Style Cabin business engaging in planning, design, manufacturing, and sales of trailers in attractive locations in the region. By supporting initiatives for utilizing trailers for BCP and local production for local consumption, we aim to contribute to value enhancement of local communities, with an eye to utilizing trailers in areas where our power plant are located.



#### Nippon Fiber Corporation (Domain: decarbonization/recycling)

Nippon Fiber has technology to manufacture a continuous filament fiber BASHFIBER, a material with potential applications in a wide range of fields due to its high strength, heat resistance, and chemical resistance. Since the fiber is made from coal ash and slag, byproducts of coal-fired thermal power generation or integrated gasification combined cycle, we are considering launching a joint venture with Nippon Fiber that includes the supply of coal ash.



### Examples of New Business Development

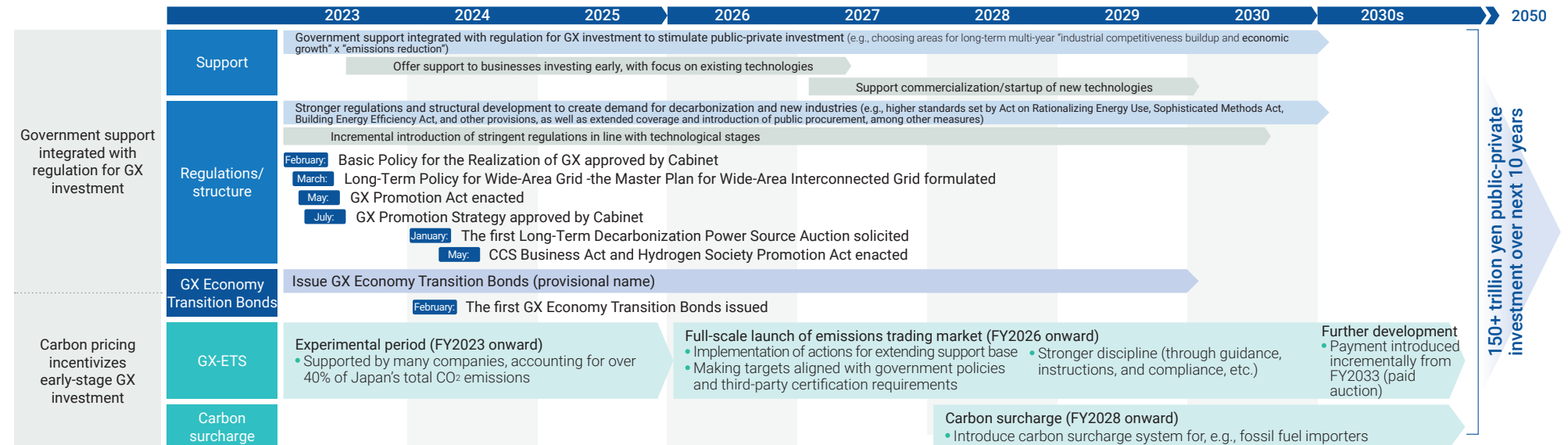
*Fistulifera solaris* and *Mayamaea* sp. strains of microalgae (collectively called “sola-luna”), on which we have been conducting research and development, are high in oil content, and can be cultured in seawater. Since April 2023, we have been promoting the commercialization of value-added products using the *solar-lunar*, such as soaps and cosmetics, in collaboration with circuRE act Co., Ltd.



# Trends in Policies to Achieve Carbon Neutrality

In order to achieve a 46% reduction in greenhouse gas emissions by FY2030 and carbon neutrality by 2050 and to establish an energy supply and demand structure for stable, low-cost energy supply, the Japanese government has established the Basic Policy for the Realization of GX and promoted the development of regulations, structures, and policies to support businesses. The J-POWER Group will promote initiatives to achieve carbon neutrality while also utilizing various government incentives in accordance with the Basic Policy.

## Various Policies to Achieve Carbon Neutrality



Source: Created by J-POWER based on the Basic Policy for the Realization of GX, Reference, Cabinet Office, (February 10, 2024)

## GX Economy Transition Bonds

In order to support the advance investment for achieving green transformation (GX), the government plans to issue GX Economy Transition Bonds (decarbonized growth-oriented economic structure transition bonds) amounting to 20 trillion yen in the 10 years from FY2023, with the aim of realizing public-private investment totaling more than 150 trillion yen. GX Economy Transition Bonds will be redeemed by FY2050 through a fossil fuel levy and specified business contributions (e.g., paid auctions to power producers).

## Carbon Pricing

The government has decided to introduce a carbon pricing system to increase the value of GX-related products by pricing carbon emissions.

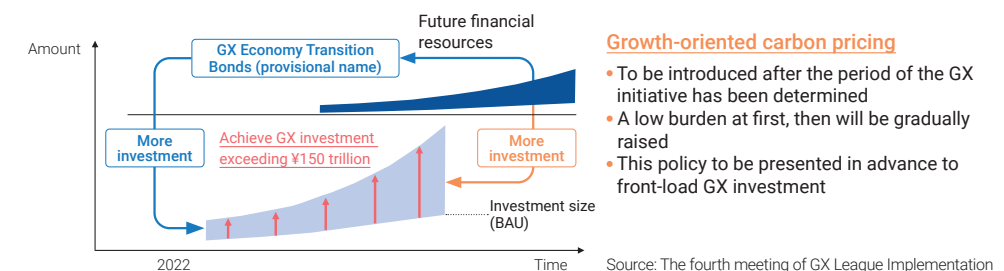
### ① Fossil Fuel Levy

Fossil fuel importers will be charged the fossil fuel levy based on the amount of CO<sub>2</sub> from the fossil fuel they import beginning in FY2028.

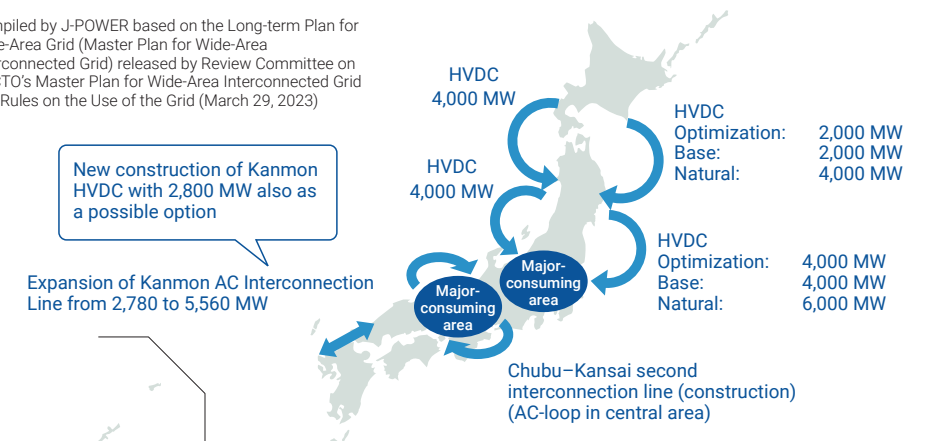
### ② Emissions Trading System

From FY2033, power producers will be allocated CO<sub>2</sub> emission quotas (amounts) partially at cost and will be charged the specified business contributions based on the amount. The specific allocation and unit price of the paid emission quota will be determined through a bidding process (paid auction).

## GX Economy Transition Bonds and Carbon Pricing







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# Initiatives for Carbon Neutrality

## Development of Renewable Energy



### Integrated strengths of the J-POWER Group

With a history of nearly 70 years in the development of renewable energy, the J-POWER Group boasts a wealth of equipment and human resources, as well as a wide range of expertise in everything from the siting and construction of power plants to maintenance, operation, and sales of electricity. In particular, as a domestic front runner in the fields of hydroelectric and onshore wind power plants in Japan, we have a track record of development of these technologies and has many facilities in promising water and wind-rich areas. Leveraging our advantage as one of Japan's leading renewable energy suppliers, we continuously aim to promote new development of onshore and offshore wind, hydroelectric, geothermal, and solar power, as well as maximize the use of renewable energy through upcycling of existing facilities.

### Strategic investments and development targets

We plan to make strategic investments of 700 billion yen from FY2023 to FY2030. We also plan to invest 200 billion yen in the development of global renewable energy from FY2024 to FY2026 and 60 billion yen in the expansion of the power network, which is essential for the development of renewable energy. We will utilize green bonds and green/transition finance to raise funds. The Medium-Term Management Plan includes a target to increase domestic power generation from renewable energy sources by 4.0 billion kWh per year by FY2030 (from the FY2022 level). To achieve development on a larger scale, at a faster pace, and with higher profitability, we will promote diversification of sales methods as described below and other initiatives using alliances.

### Diversification of sales methods and development of related businesses

In the sale of electricity derived from renewable energy sources (renewable energy), which we are developing as a domestic front runner, we are promoting initiatives for direct sales to consumers, including the use of the FIT and FIP programs and corporate PPAs. In order to implement the sale of renewable energy in a way other than the FIT program, we need to work on our own projections of the power output of renewable energy sources (renewable energy aggregate), whose power generation varies depending on weather. Then, we are also working to accumulate the know-how and provide the renewable energy aggregate service to other power entities (entered into a renewable energy aggregation service agreement through PHOTON CAPITAL LLC in November 2023 and July 2024). Besides these, on behalf of our clients, we also sell and purchase non-fossil certificates, which virtually transform electricity into renewable energy. We also sell tracking information that discloses attribute details like the power source type and power plant location.

#### Improve profitability

##### Increase in power generation volume

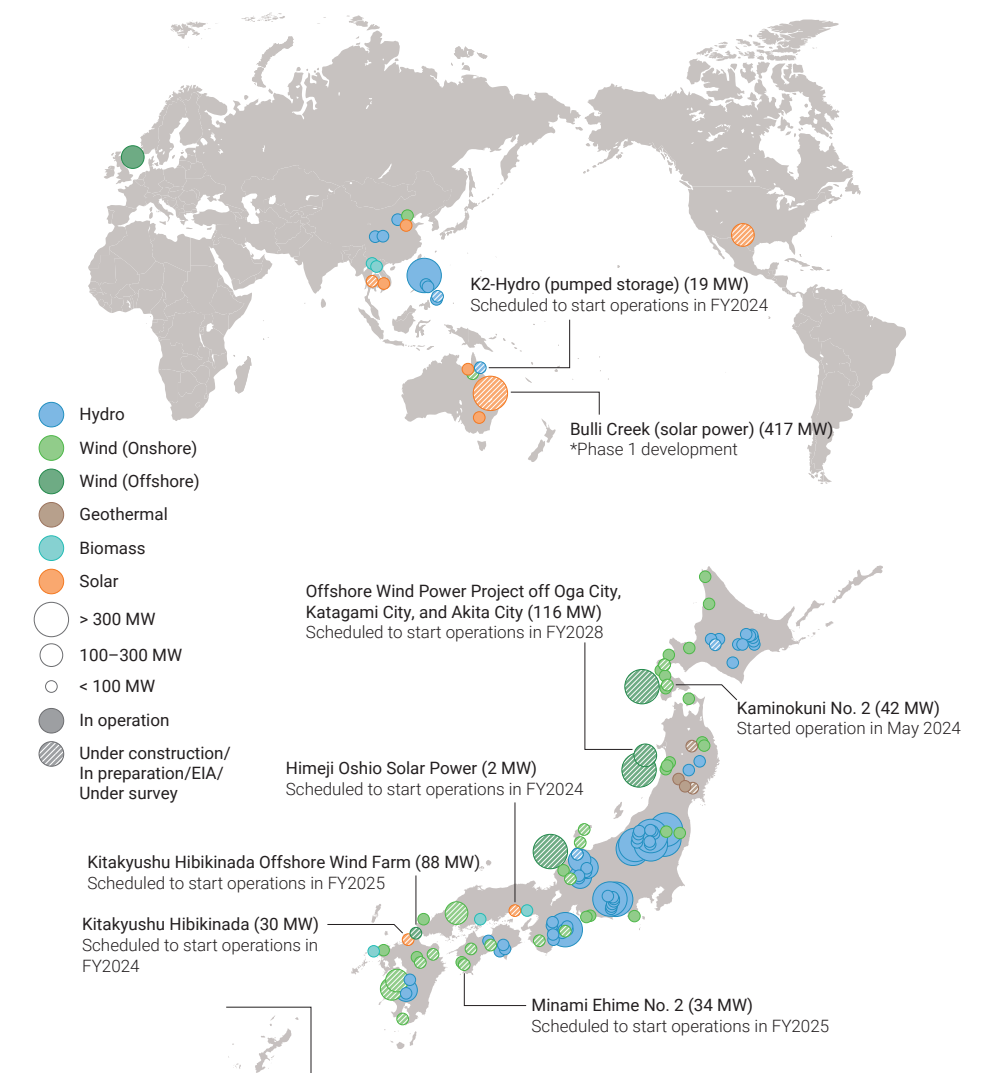
Domestic renewable energy power generation  
An increase of  
**4.0 billion kWh**  
per year by FY2030  
(from the FY2022 level)

×

##### Realize environmental value

Also use corporate PPAs and others to maximize the environmental value

### Development Status of Renewable Energy (As of March 31, 2024)



- Generation capacity is calculated on owned capacity and, if capacity is not yet decided, on estimated maximum owned capacity.
- Wind power generation during the survey and construction phase includes replacement without an increase in generation output.
- In addition to the above, studies on the development of wind power in Japan's general offshore areas are in progress (for offshore wind power in general offshore areas, the operator is selected through bidding after designating the promotion area).

Initiatives for Carbon Neutrality Development of Renewable Energy

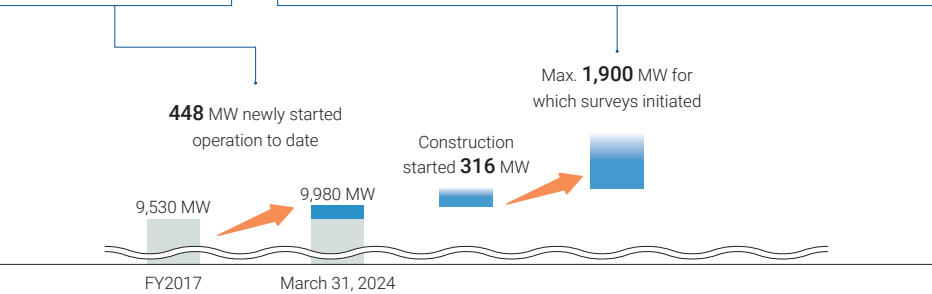


Development results and expansion status

J-POWER has been steadily promoting the development of new renewable energy plants, starting operations of four onshore wind power plants and two geothermal power plants in Japan during FY2023. As a result, operating renewable energy capacity is approximately 448 MW higher than the FY2017 level (as of March 31, 2024). Several projects focusing on construction and replacement of domestic onshore wind power plants are currently in progress, including the installation of offshore wind power, the repowering of small-scale hydroelectric power and existing hydroelectric power, and the installation of solar power. In the U.S., Australia, and the Philippines, J-POWER is working with local partners with local expertise to rapidly promote the development of renewable energy with its domestically accumulated technical capabilities. Currently, the overall quantity of renewable energy projects in development is up to approximately 1,850 MW, including domestic onshore wind sites undergoing environmental impact assessment procedures (up to about 800 MW) and overseas projects in the planning stage.

Renewable Energy Development Goals and Progress

April 2023–March 2024 Commencement of new operations	Major projects under construction	Major projects for which surveys, etc. have been initiated
(including replacements) • Onshore Wind (onshore) 4 domestic locations • Geothermal 2 domestic locations etc.	• Domestic onshore wind Minami Ehime No. 2 • Domestic offshore wind Kitakyushu Hibikinada Offshore Wind Farm • Hydroelectric K2-Hydro (Australia) domestic repowering, small-scale hydroelectric power plants • Solar Kitakyushu Hibikinada, Himeji Oshio	• Domestic onshore wind power (environmental impact assessment procedures underway) Max. about 800 MW • Domestic offshore wind power Offshore Wind Power Projects off Oga City, Katagami City, and Akita City of Akita Prefecture • Overseas onshore wind power Kidston Stage-3 Wind (Australia) • Hydroelectric Bulanog Batang (Philippines) • Solar Bulli Creek (Australia) Refugio (U.S.)

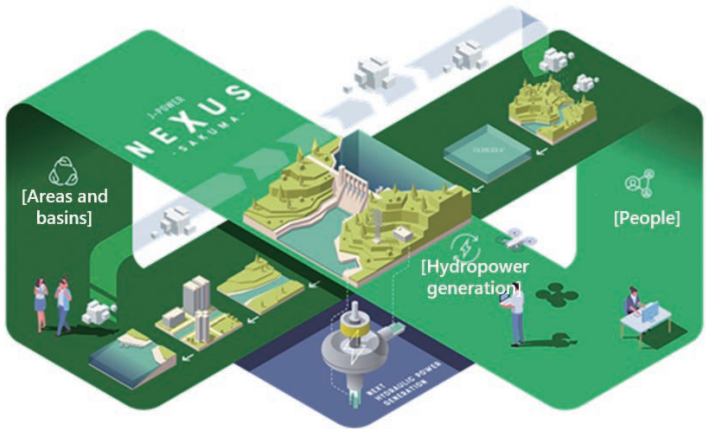


NEXUS® Sakuma Project

The Sakuma Power Station, which has contributed to a reliable supply of electricity for more than 60 years, is being renovated as part of the NEXUS Sakuma Project to make it a next-generation hydroelectric power plant. By bringing together hydroelectric generation, local community/basins, and people, we are trying to produce new value and energy in addition to repowering older facilities. This power station, which can supply power to both 50 Hz and 60 Hz areas, is scheduled to increase its maximum capacity from 350 MW to 400 MW through a two-stage renovation construction from FY2026 to FY2035.

Next-generation hydroelectric power plant to create new value and energy

- **Hydroelectric Generation**  
By applying modern technologies to renovate aged facilities, we aim to further increase both output and the amount of electricity to be generated, as well as to drastically solve issues in the existing facilities.
- **Local Communities and Basins**  
To deploy our sustainable hydroelectric business under the understanding and cooperation by those who are living in the involving areas, we live together with them in the basins around our facilities and take efforts to create together new values.
- **People**  
With a fusion of the local employees' force (people) and digital technologies, we realize highly-advanced, highly efficient maintenance services, as well as we create time and motivation for new challenges.



Final Conceptual Image

The image of hydroelectricity, community and watershed, and people working together around a power plant is expressed based on atmospheric and water circulation systems and the infinity symbol (∞).



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## Initiatives for Carbon Neutrality

## Development of Renewable Energy



## Strengths in offshore wind power

Since 2011, J-POWER has been promoting an offshore wind power demonstration research project\*, including construction, operation, and removal, off the coast of Kitakyushu City. We intend to generate additional offshore wind power while leveraging our experience in construction and project management through initiatives such as the Kitakyushu-Hibikinada Offshore Wind Farm and the Triton Knoll Offshore Wind Farm in the United Kingdom, both of which we participate in. In December 2023, the consortium in which we participate was selected as the operator of an offshore wind power project off the coast of Oga City, Katagami City, and Akita City, Akita Prefecture. This project is scheduled to begin operations in June 2028, contributing to the early expansion of renewable energy adoption in Japan.

In order to lower prices and hasten the adoption of floating offshore wind power generation, we are also collaborating with related manufacturers and electric power businesses in the creation of technologies. We are also working with other companies to develop domestically produced floating-axis wind turbines for the purpose of reducing the cost of offshore wind power generation.

\*Conducted jointly with the New Energy and Industrial Technology Development Organization (NEDO) from FY2011 to FY2016, and solely by J-POWER in FY2017 and beyond.

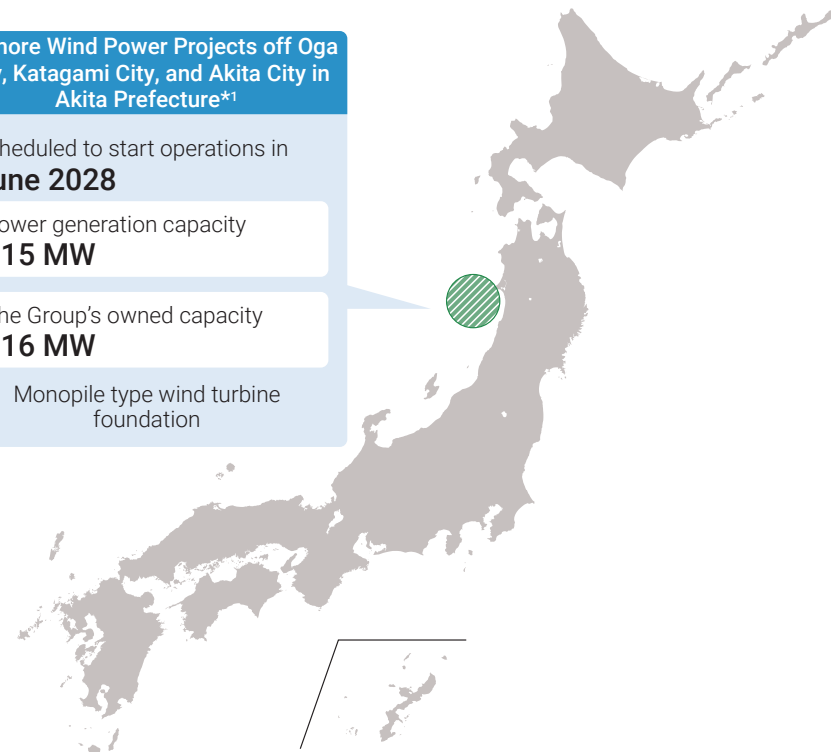
Offshore Wind Power Projects off Oga City, Katagami City, and Akita City in Akita Prefecture\*<sup>1</sup>

Scheduled to start operations in  
**June 2028**

Power generation capacity  
**315 MW**

The Group's owned capacity  
**116 MW**

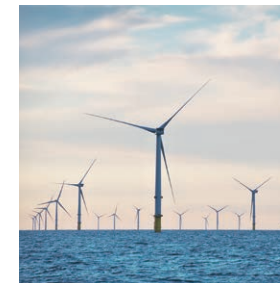
Monopile type wind turbine  
foundation

Domestic onshore wind power: 24 locations  
(Hokkaido through Kyushu)

- The 2nd share in Japan
- A track record of development since the early 2000s
- Installation and replacement throughout Japan

## NEDO's demonstration test of bottom-mounted offshore wind turbines (Fukuoka Prefecture)

- Long-term demonstration test from FY2011 to FY2015
- Obtain expertise in the stages of survey, construction, and removal
- Hybrid gravity type wind turbine foundation

Triton Knoll Offshore Wind Farm (UK)\*<sup>2</sup>

- One of the world's largest offshore wind turbines in the UK, leading the way in the field
- J-POWER has been involved and provided engineers since the development stage
- Gained expertise in operations as a commercial machine

Kitakyushu Hibikinada Offshore Wind Farm  
(Fukuoka Prefecture)\*<sup>3</sup>

- Japan's largest class of offshore wind farm located in a port area
- Jacket-type wind turbine foundation
- Under construction, scheduled to start operations in FY2025



\*<sup>1</sup> Conducted jointly with JERA Co., Inc., Tohoku Electric Power Co., Inc., and ITOCHU Corporation

\*<sup>2</sup> Conducted jointly with RWE AG and The Kansai Electric Power Co., Inc.

\*<sup>3</sup> Conducted jointly with Kyuden Mirai Energy Company, Incorporated, Hokutaku Co., LTD, Saibu Gas Co. Ltd., and Kyudenko Corporation.

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## Initiatives for Carbon Neutrality

## Construction of nuclear power plants



## The Ohma Nuclear Power Plant Project

## Plan overview and significance

The Ohma Nuclear Power Project will be a CO<sub>2</sub>-free energy source capable of steadily providing substantial amounts of electricity once it is operational. In addition, it will be the only power plant in Japan capable of using MOX fuel, made by recycling spent fuel, for the entire core.

For energy resource-scarce Japan, nuclear power is a power source that excels in terms of largescale CO<sub>2</sub>-free power, stable procurement and storage of fuel. The operation of the Ohma Nuclear Power Plant will promote the reprocessing of spent fuel in Japan, contributing to the stable operation of other nuclear power plants nationwide, which are CO<sub>2</sub>-free power sources, helping to improve the energy self-sufficiency of Japan. The J-POWER Group is implementing the Ohma Nuclear Power Plant Project by ensuring safety as its top priority.

## Overview of the Ohma Nuclear Power Plant Construction Plans

Location	Ohma-machi, Shimokita-gun, Aomori Prefecture
Capacity	1,383 MW
Type of nuclear reactor	Advanced boiling water reactor (ABWR)
Fuel	Enriched uranium and uranium-plutonium mixed oxide
Start of construction	May 2008
Start of operations	To be determined



## Ohma's position in the pluthermal program

In July 2018, the Japanese government issued The Basic Principles on Japan's Utilization of Plutonium, a new policy paper published by Japan's Atomic Energy Commission (JAEC), which stated that Japan will reduce the size of its plutonium stockpile. The Federation of Electric Power Companies of Japan (FEPC) unveiled in December 2020 its Pluthermal Program and a new plan for the utilization of plutonium in February 2023. J-POWER also released its MOX Fuel Utilization Plan at the Ohma Nuclear Power Plant in February 2023. Approximately 1.7 tons\* of plutonium can be used annually at the stage of loading MOX fuel into all reactor cores, thereby helping to reduce the size of plutonium stockpiles.

\*This had been set to the amount of fissile plutonium (about 1.1 tons). However, since July 2018, when the Japan Atomic Energy Commission set "The Basic Principles on Japan's Utilization of Plutonium," which indicates the total amount of plutonium, we have used this basis (about 1.7 tons).

## Use of the Long-Term Decarbonization Power Source Auction system

The J-POWER Group will also consider to apply the Long-Term Decarbonization Power Source Auction system, which was introduced in FY2023, to the Ohma Nuclear Power Plant.

## Ohma Nuclear Power Plant Safety Reinforcement Measures

In the wake of the accident at the Fukushima Daiichi Nuclear Power Station, the new regulatory standards established by the Nuclear Regulation Authority are now thought to be the strictest safety standards in the world. At the Ohma Nuclear Power Plant, we are learning the lessons from the accident at the Fukushima Daiichi Nuclear Power Plant and incorporating measures to strengthen safety based on these new regulatory standards.

Examples include strengthening design standards to protect the functions of power plant safety equipment from natural disasters such as tsunamis and earthquakes, measures to respond promptly in the event of a severe accident, and measures to prevent serious accidents caused by terrorism and other causes. Furthermore, by not limiting ourselves to these measures and voluntarily and consistently improving safety based on the latest knowledge, we will continue to strive to make the Ohma Nuclear Power Plant the world's safest power plant so that we can contribute to the local community and Japan.

For details of safety enhancement measures, please refer to the J-POWER website. (Japanese only)

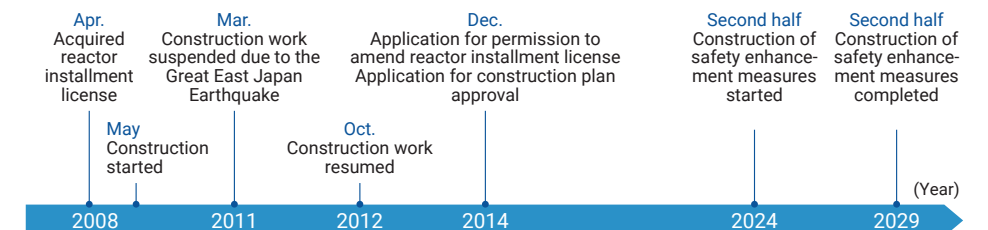
[https://www.jpowers.co.jp/bs/nuclear/safety\\_measure/index.html](https://www.jpowers.co.jp/bs/nuclear/safety_measure/index.html)

## Status of Ohma Nuclear Power Plant review

The Nuclear Regulation Authority is currently reviewing the Ohma Nuclear Power Plant's compliance with the New Safety Standards for Nuclear Power Stations. Sixty-four review meetings have been held as of the end of April, 2024. We will respond sincerely to the review so that our explanation can be understood by the authority.

Standard seismic motion and standard tsunamis are currently the main topic of discussion. As the business operator, we are unable to predict the progress of the compliance review. However, once the review has been passed, we will begin construction on facility safety reinforcement in the latter half of 2024 based on the review findings, with the aim of completion in the latter half of 2029. To gain the community's understanding and trust, we shall keep working toward providing more detailed information and communication.

## Process (actual results and outlook)



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## Initiatives for Carbon Neutrality

## Creating a zero-emission power supply



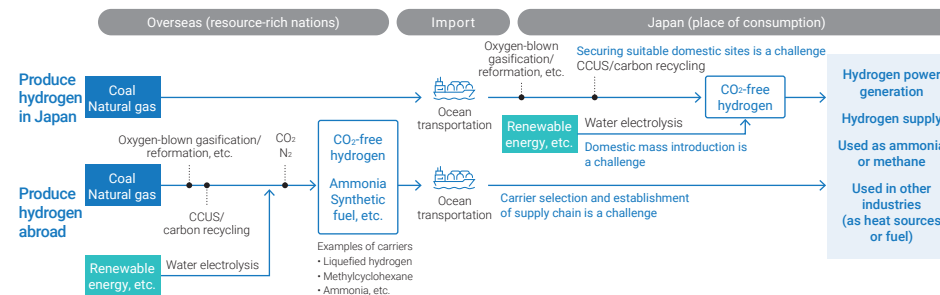
## Thermal power transition strategy

In order to achieve both stable power supply and carbon neutrality in Japan, it is necessary to utilize thermal power sources that can provide supply regulation, in addition to renewable energy and nuclear power, while reducing or eliminating their carbon content.

The J-POWER Group has announced the direction of coal-fired power plants at eight locations (15 plants) to achieve zero-emission thermal power in the Medium-Term Management Plan 2024–2026. By using hydrogen, ammonia, and biomass, the Group aims to gradually achieve zero-emission thermal power, taking into account plant characteristics.

The Group will also secure a variety of decarbonization technologies from the upstream to downstream in the supply chain, including hydrogen/ammonia production and CCS, with the goal of achieving a reliable transition from thermal power.

[P.23 Medium-Term Management Plan](#) [P.63 Direction for thermal power transition](#)



## Government Policy Trends

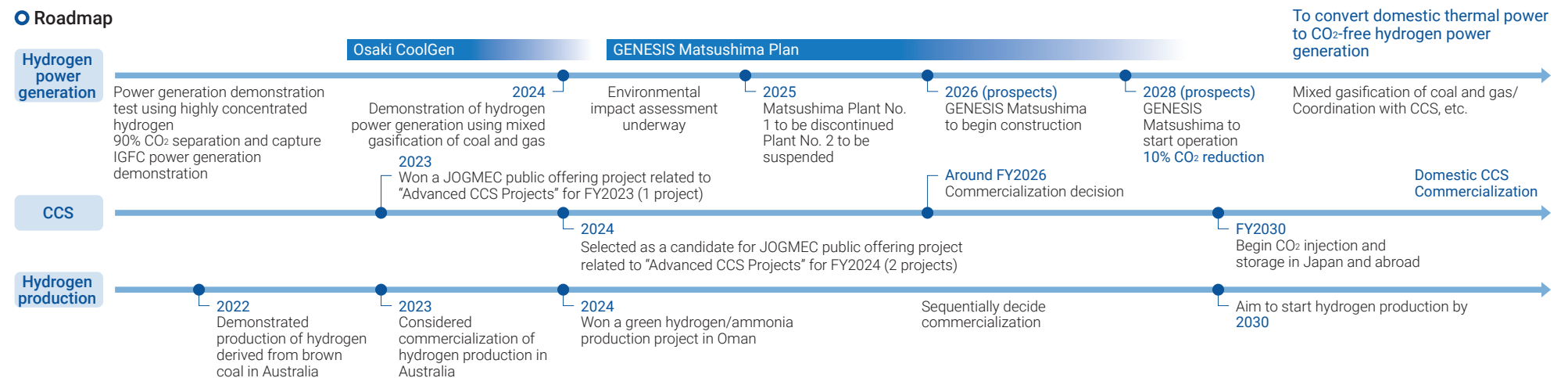
Hydrogen and ammonia are expected to contribute to carbon neutrality not only in the power generation sector, but also in various other industries. Since they can also be produced from various energy sources, hydrogen and ammonia are also important from the perspective of Japan's energy security. The Japanese government has announced its Basic Hydrogen Strategy and enacted the Hydrogen Society Promotion Act in 2024, which provided for support for the supply chain by compensating for the price difference between hydrogen and ammonia and support for site development.

Regarding CCS, the government aims to launch CCS projects by 2030 and expects to invest approximately 4 trillion yen in the public and private sectors over the next 10 years to establish an advanced CCUS value chain. The CCS Business Law enacted in 2024 provided for a licensing system for exploratory drilling and storage projects necessary for commercialization, as well as the regulations for storage business operators.

## Strengths of the J-POWER Group

J-POWER has already demonstrated hydrogen production and power generation using oxygen-blown coal gasification and CO<sub>2</sub> separation and capture technologies in Japan and abroad. By combining these with CCS, it aims to realize CO<sub>2</sub>-free hydrogen. In addition, we have renewable energy facilities and a wealth of expertise in their operation that can be used for green hydrogen production.

## Roadmap





## Initiatives for Carbon Neutrality

### Creating a zero-emission power supply



### Hydrogen/ammonia power generation

#### Osaki CoolGen Project

The Osaki CoolGen Project\*<sup>1</sup> has demonstrated the CO<sub>2</sub> separation and capture oxygen-blown IGCC\*<sup>2</sup> for power generation performance, including the production of highly concentrated hydrogen gas, a CO<sub>2</sub> capture rate of 90% or more, and operation with a hydrogen concentration of around 40% at the gas turbine inlet. With its excellent load flexibility, this generation method is expected to play the role of providing the regulatory power in response to output fluctuations of renewable energy.

In addition, with efficient CO<sub>2</sub> capture and compatibility with low-grade coal, the generation system is also expected to help reduce power generation costs for commercialization.

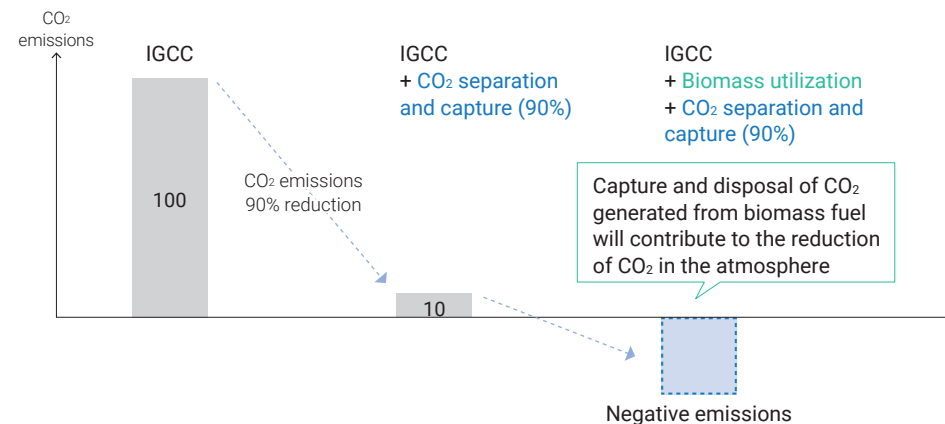


\*<sup>1</sup> Joint project between J-POWER and the Chugoku Electric Power Co., Inc. (NEDO subsidized project)

\*<sup>2</sup> IGCC: Integrated gasification combined cycle

#### Negative Emissions

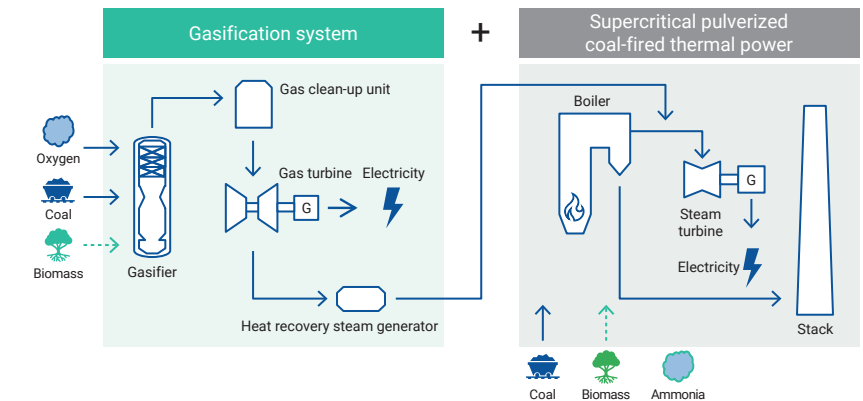
The Osaki CoolGen Project involves demonstration tests of mixed gasification of biomass and coal during FY2023–2024. The gasification technology would further contribute to CO<sub>2</sub> reduction if successfully commercialized. In addition, the storage and recycling of captured CO<sub>2</sub> will realize “negative emissions” and contribute to the reduction of CO<sub>2</sub> in the atmosphere.



#### GENESIS Matsushima Plan

We are promoting the GENESIS Matsushima Plan to commercialize the technology demonstrated in the Osaki CoolGen Project at the Matsushima Thermal Power Plant No. 2, which will be shut down at the end of FY2024. The plant No. 2 will reduce its CO<sub>2</sub> emissions by approximately 10% due to its higher efficiency.

In the future, we will adopt CO<sub>2</sub> separation and capture and combine it with CCS, etc., with a view to realizing CO<sub>2</sub>-free hydrogen power generation and even providing hydrogen to other industries. In this way, we aim to create an advanced carbon-neutral site.



#### Ammonia power generation

We are considering transitioning to ammonia-based power generation at our thermal sites. In this consideration, sites will be selected taking into account the conditions of plant equipment and port facilities as well as the surrounding environment. In addition, we will work with various stakeholders to establish a stable ammonia supply chain in Japan, as large-scale mixed/mono combustion requires bulk procurement of ammonia.

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## Initiatives for Carbon Neutrality

## Creating a zero-emission power supply

## Promotion of CCS

## Initiatives of J-POWER

J-POWER established a joint venture, West Japan Carbon dioxide Storage Survey Co., Ltd., with ENEOS Corporation and JX Nippon Oil & Gas Exploration Corporation, with the aim of starting a CO<sub>2</sub> separation, capture, transportation, and storage project in western Japan by FY2030. This project has been selected as a candidate for JOGMEC\* public offering project related to "Advanced CCS Projects." We are now preparing for commercialization, including exploration and evaluation of the selection of candidate storage sites.

In addition, the Southern Offshore of Peninsular Malaysia CCS project in Malaysia, in which several companies including J-POWER participate, has been selected as a candidate for JOGMEC public offering project related to "Advanced CCS Projects."

\*JOGMEC: Japan Organization for Metals and Energy Security

 [P.41 Research & development \(CO<sub>2</sub> hydrates\)](#)

## Overview of the project in western Japan

Proposer	J-POWER, ENEOS, JX Nippon Oil & Gas Exploration, West Japan Carbon dioxide Storage Survey
Emission sources	Oil refineries and thermal power plants in Setouchi and Kyushu regions
Transport method	Vessels and pipelines
Candidate sites for CO <sub>2</sub> storage	Off the western Kyushu (offshore saline aquifers)
Storage volume	Approx. 1.7 million tons/year
Feature of the project	The project will promote hub-and-cluster CO <sub>2</sub> storage that links multiple CO <sub>2</sub> emission sources and offshore storage sites, targeting emissions from oil refineries and power plants in a wide area of western Japan, including Setouchi region.

## Overview of the project in Malaysia

Proposer	J-POWER, Mitsui & Co., Chugoku Electric Power, The Kansai Electric Power, Cosmo Oil, Kyushu Electric Power, Resonac, Mitsubishi UBE Cement
Emission sources	Multiple industries including power generation, chemical, cement, and oil refining in the Kinki, Chugoku, and Kyushu regions, among others
Transport method	Vessels and pipelines
Candidate sites for CO <sub>2</sub> storage	Off the east coast of Malay Peninsula in Malaysia (offshore depleted oil and gas fields, aquifers)
Storage volume	Approx. 5 million tons/year
Feature of the project	The project will promote large-scale CO <sub>2</sub> capture from multiple scalable CO <sub>2</sub> clusters across industries in a wide area of western Japan, and then transport the captured CO <sub>2</sub> overseas to a hub to be developed off the east coast of Peninsular Malaysia for storage in partnership with Petronas (Malaysia) and TotalEnergies (France).

## Hydrogen/ammonia power generation

The Group has demonstrated the production of high-purity hydrogen using brown coal, which is still abundant and unused in Australia. Based on this experience, the Group also aims to expand its business line to achieve the production and supply of clean hydrogen that has been subjected to CO<sub>2</sub> processing.

The Group has also formed a consortium with Yamna (UK) and EDF (France) and won the right to implement a large-scale green hydrogen/ammonia production project in the Sultanate of Oman.



## Topics

## Economic efficiency of zero-emission thermal power generation

We will actively utilize the Japanese government's economic support programs to achieve cost reduction. It is possible to use the "Long-Term Decarbonized Power Source Auction system" for investment in upcycling existing coal-fired thermal power plants to mixed/mono hydrogen combustion facilities. In addition, CCS would be supported by the "Advanced CCS Project" for costs in the development and construction phase and for maintenance costs in the operation phase.

The carbon pricing system is scheduled to be implemented in FY2028. We will be able to commercialize hydrogen power generation and CCS if they can be implemented at costs below carbon pricing.

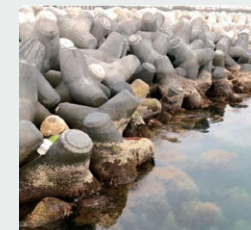
 [P.43 Government Policy Trends](#) [P.65 Disclosure Based on TCFD Recommendations](#)

## Carbon reduction and blue carbon initiatives using concrete substitutes

J-POWER has developed "J Blue Concrete," a concrete substitute material made mainly from coal ash and copper slag, which are industrial by-products, and used it at its sites. Compared with ordinary concrete, J Blue Concrete is more resistant to sea waves (heavier) and has a lower carbon content (less CO<sub>2</sub> emissions from the material).

We have also worked on the research and development of blue carbon, which uses J Blue Concrete to help seaweed absorb and fix CO<sub>2</sub> from the atmosphere. We then became the first company in the private sector to obtain certification for J Blue Credits\*.

J-POWER will continue its initiatives for further CO<sub>2</sub> reduction and absorption, thus contributing to carbon neutrality.



\*A system whereby the Japan Blue Economy Association (JBE), which was established and approved by the Ministry of Land, Infrastructure, Transport and Tourism, certifies and issues the credits

## Initiatives for Carbon Neutrality

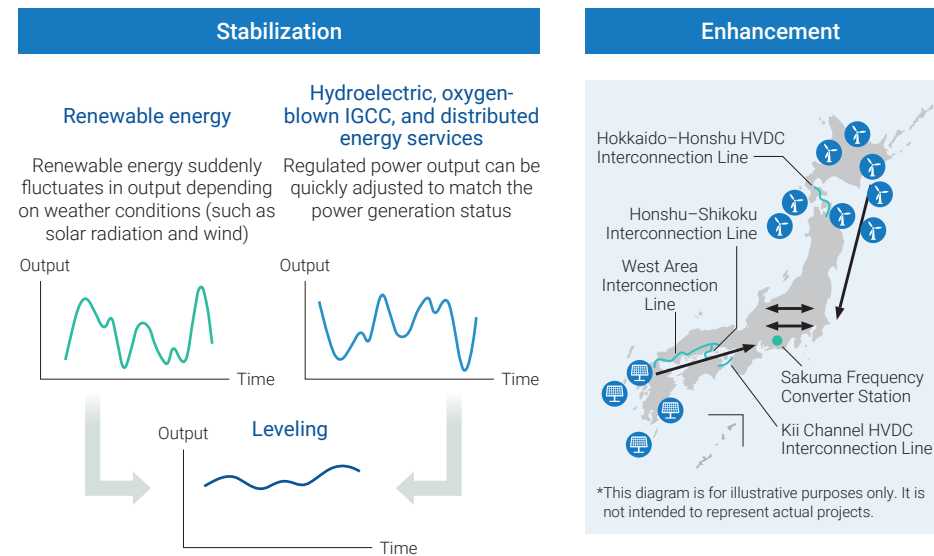
### Power network stabilization and enhancement



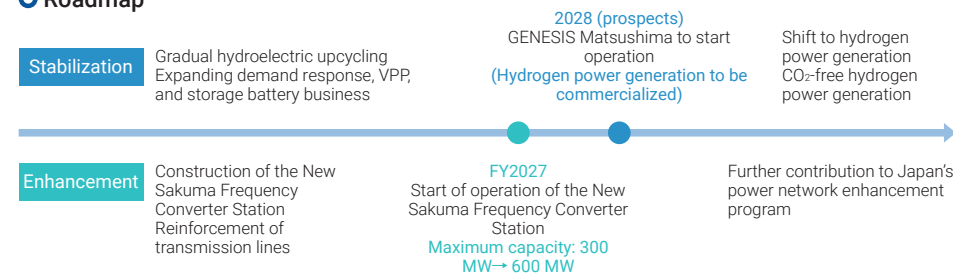
#### Supporting Mass Introduction of Renewable Energies

Renewable energies like solar and wind power are vulnerable to sudden fluctuations in output depending on weather conditions. When they are introduced in large amounts, the need to be able to adjust to control the supply-demand balance becomes even more critical. In addition, the power network must be strengthened to deliver electricity from renewable energy-rich power production sites (such as Hokkaido, Tohoku, and Kyushu) to distant consumption areas.

The Group plans to aid in the widespread use of renewable energy by stabilizing and enhancing the power grid.



#### ● Roadmap



\*Strengthening the power network is an initiative of J-POWER Transmission Network Co., Ltd.

#### Stabilization

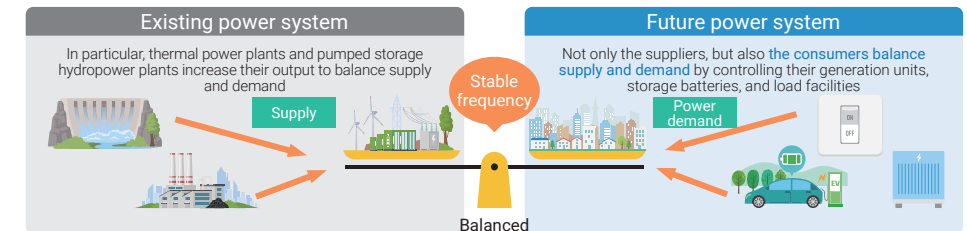
##### Hydroelectric power and hydrogen power generation

J-POWER has large-scale general hydroelectric power plants and pumped storage hydropower plants to generate power according to seasons and time frames and to absorb surplus power. It also aims to realize hydrogen power generation, which enables flexible load adjustment. By using these as regulated power sources, we contribute to the stabilization of the power network.

##### Distribution network system

J-POWER uses its expertise in supply and demand forecasting to act as an intermediary between electric power companies and consumers, providing services to manage the supply-demand balance. For instance, we are developing Demand Response and VPPs, which balance supply and demand by combining customer-owned demand facilities, requiring power conservation to avoid power outages, and methodically managing the recharge/discharge of storage batteries.

#### ● Overview of demand response



#### Enhancement

##### Expansion of trunk transmission lines and inter-regional connection lines

The Group has trunk transmission lines and inter-regional connection lines that enable flexible transmission between regions. In order to enhance the capability to interchange electric power between 50Hz in eastern Japan and 60Hz in western Japan, the Group is promoting the new construction of the New Sakuma Frequency Converter Station and the replacement/expansion of related transmission lines. (Scheduled to start operations in FY2027)

##### Expansion of submarine DC interconnection facilities

Efficient long-distance transmission requires the use of submarine ultra-high-voltage DC transmission facilities using submarine cables. The Group successfully built the ultra-high-voltage DC power transmission facilities and developed the ultra-high-voltage DC CV cable for the first time in Japan. It also owns and maintains cross-regional interconnection facilities, contributing to the development of Japan's enhanced power network.



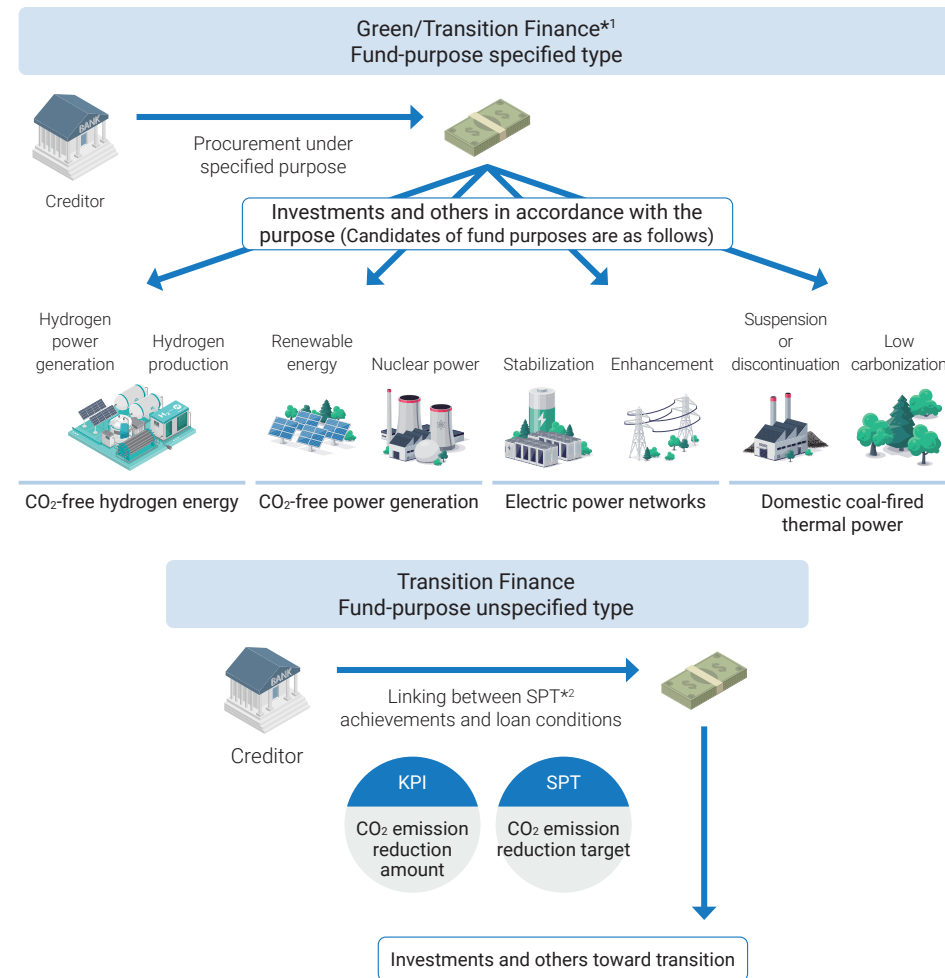
## Initiatives for Carbon Neutrality

### Financial Initiatives



### Diversifying Methods of Fundraising Toward Transition

We have formulated a new framework called “Green/Transition Finance Framework” for fundraising toward transition to a carbon-neutral society. This framework has been evaluated for its eligibility to various finance standards by a third-party evaluation organization called DNV BUSINESS ASSURANCE JAPAN.



\*<sup>1</sup> Green Finance only applies to those accepted as eligible green projects

\*<sup>2</sup> An abbreviation of Sustainability Performance Target, representing a target that should be achieved to fulfill KPI

#### Examples of transition-linked loan financing

Date borrowed	Sept. 29, 2023	Sept. 29, 2023	Feb. 29, 2024
Borrowed amount of money	¥10.0 billion	¥10.0 billion	¥10.0 billion
Borrowing period	7 years	10 years	7 years
Creditor	Domestic financial institutions (joint financing)	Domestic financial institutions (joint financing)	Domestic financial institutions (joint financing)

#### Examples of green bond fundraising

The 87th issuance of unsecured corporate bonds of J-POWER (with inter-bond pari passu clause) (Green Bonds)

Date issued	Feb. 16, 2024
Amount issued	¥20.0 billion
Period	10 years
Interest rate	1.106%

The fund-purpose, reporting, and environmental improvement effects related to Green Bonds issued in the past are posted on the Company's website:

<https://www.jpower.co.jp/sustainability/finance/> (available only in Japanese)

# Climate Change Scenario Analysis

## (Disclosure based on TCFD Recommendations)



### Foreword

The J-POWER Group has positioned striking a balance between “stably supplying energy” and “addressing climate change” as its priority management challenge in order to do its part for the realization of a sustainable society. To address this priority challenge, in February 2021, we released the J-POWER “BLUE MISSION 2050” as our action plan aimed at achieving carbon neutrality and a hydrogen society by 2050.

In addition to agreeing with the recommendations formulated by the Task Force on Climate-related Financial Disclosures (TCFD), the Group is pursuing the disclosure of information

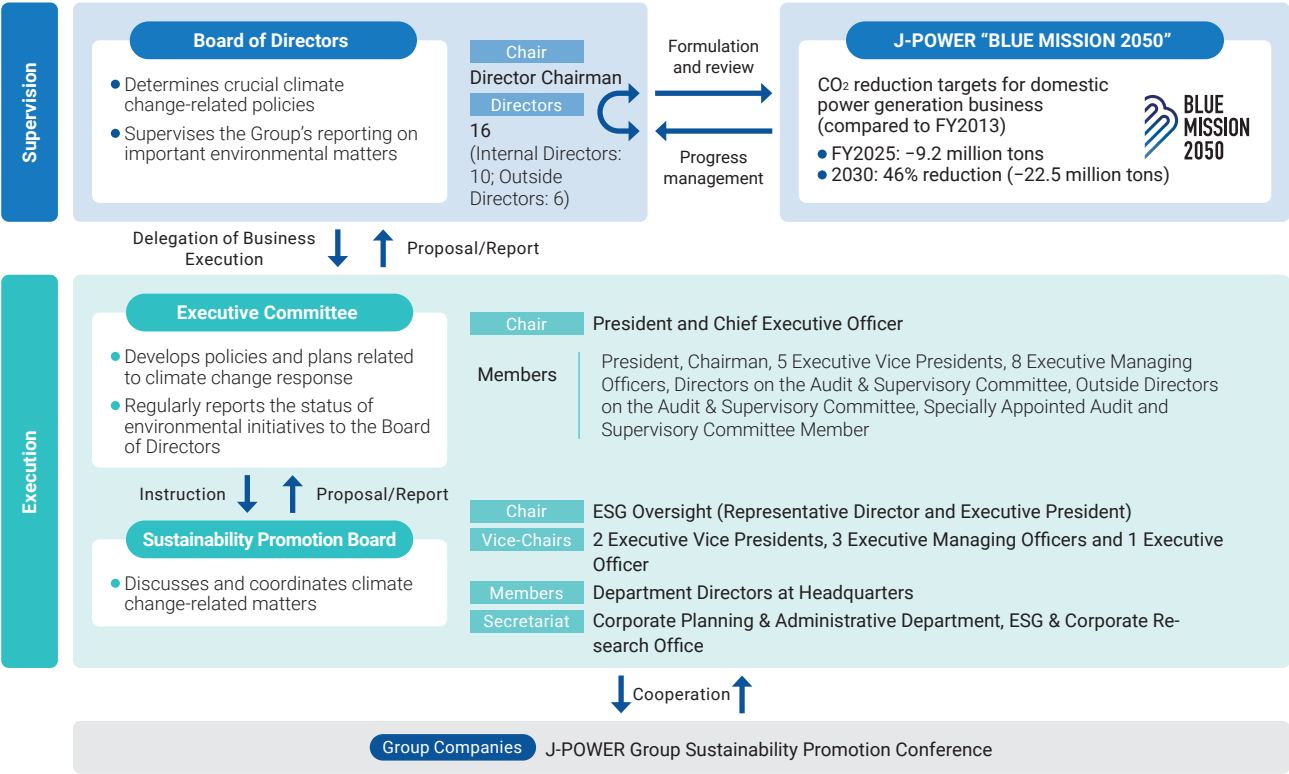
in line with “governance,” “strategy,” “risk management” and “indicators and targets” pertaining to climate change-related risks and opportunities, whose disclosure is recommended by TCFD.

The figures in this scenario analysis have the potential to fluctuate due to various conditions that include the state of operation of power generation facilities and the external environment. As such, they have been simplified and calculated under certain suppositions solely for the purpose of ascertaining the sense of scale of the impact involved.

### Governance: Framework

The Group has identified “response to climate change” as one of its material issues. Important matters pertaining to such response are determined by the Board of Directors. Additionally, the Group has established a sustainability promotion framework supervised by the ESG Oversight (currently the President and Chief Executive Officer), who is appointed by the Board of Directors. In addition to establishing the Sustainability Promotion Board, the Group has also established the J-POWER Group Sustainability Promotion Conference to work towards promoting sustainability, including climate change-related initiatives, for the Group as a whole. The Sustainability Promotion Board convenes three or more times a year to deliberate areas such as strategy, planning and measures related to sustainability in general and risk management. It proposes and reports important matters out of those deliberated to the Board of Directors or the Executive Committee.

#### Governance framework related to climate change



# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Governance: Deliberation Status and Officers’ Compensation

Since the establishment of J-POWER “BLUE MISSION 2050” in February 2021, the Board of Directors of J-POWER has been monitoring the progress of initiatives by management, receiving feedback through dialogues with shareholders and other stakeholders, and appropriately identifying changes in the business environment (including policy and international conditions), and discussing updates and revisions to the contents of the plan every year.

In FY2023 all Board members, including Independent Outside Directors, held several active discussions on whether our 2030 CO<sub>2</sub> reduction target set in February 2021 is at an appropriate level in light of the nationally determined contribution (NDC) of Japan as a party to the Paris Agreement. From the discussions, we decided to raise the 2030 reduction target (1.3 million tons) in May 2023 based on the progress made in expanding mixed combustion of biomass and establishing a joint venture for the social implementation of carbon capture and storage (CCS) in Japan, expansion of renewable energy introduction and the actual reduction in CO<sub>2</sub> emissions from coal-fired power generation.

More recently, following repeated discussions to develop a strategy for the transition of our thermal power operations, the directions for the transition of individual power stations were formulated and disclosed to lay out a more concrete vision to achieve the reduction target.

## Officers’ Compensation

From the viewpoint of sustainability management, the Board of Directors decided to introduce five material issues including response to climate change as non-financial targets for the evaluation of performance-linked compensation.

The Company’s five material issues, which are the benchmarks for performance-linked compensation, are supply of energy, response to climate change, respect for people, engagement with local communities, and enhancement of our business foundation. KPIs for addressing climate change include numerical targets for renewable energy development and CO<sub>2</sub> reduction targets.

### ○ Matters (related to climate change) determined at the Board of Directors

FY2020	• Formulation of J-POWER “BLUE MISSION 2050”
FY2021	• Formulation of Basic Policy on Sustainability • Identification of material issues
FY2022	• Setting of CO <sub>2</sub> reduction target for FY2025
FY2023	• Raising of CO <sub>2</sub> emission reduction target for 2030 • Introduction of non-financial targets (material issues) in the evaluation of performance-linked compensation for executives
FY2024	• Disclosure of transition direction of thermal power operations in Japan

### ○ Matters reported to the Board of Directors

Domestic and overseas trends on climate change issues
Basic policy regarding Green Transformation (GX) League
Disclosure policy based on TCFD Recommendations
Actual CO <sub>2</sub> emissions (Scopes 1–3)
Dialogue with external stakeholders regarding climate change
ESG evaluation
Progress of ESG-related initiatives
[Opinion exchange meetings with Outside Directors] Exchanged views with Outside Directors on climate change themes such as IEA WEO2023 & COP28

### ○ Officer Compensation System

	Compensation type	Compensation details	Percentage (estimate) in the compensation package
Fixed Compensation	Fixed monthly salary	Fixed monthly salary is a fixed amount of monetary compensation calculated based on the position of each Director	70%
Variable compensation	Performance-linked compensation	① <b>First indicator</b> Evaluation factor Degree of achievement of consolidated ordinary income Range 0% minimum to 200% maximum	20%
		② <b>Second indicator</b> Evaluation factor Comprehensive evaluation* of material issues (KPIs) Range 0% minimum to 120% maximum	
		③ <b>Payment calculation</b> Weight of evaluation factors Evaluation factor for first indicator × 90% + Evaluation factor for second indicator × 10%	
	Stock-based compensation	Introduced as an incentive for the Company’s long-term growth based on the characteristics of the Company’s business content and business development.	10%

\*See p.12-13 of Integrated Report 2024 for details of the targets (KPIs) for material issues and results of initiatives.



## Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

### Governance: Skills Matrix

J-POWER has indicated the roles and obligations of its Board of Directors in Article 18 of the Basic Policy on Corporate Governance as follows:

- i) Setting the broad direction of management plans, etc.
- ii) Establishing an environment that supports risk-taking by the management
- iii) Carrying out effective supervision of the management from an independent and objective standpoint

Skill sets are selected based on these roles and obligations under the Group's Corporate Philosophy to address the five material issues selected as important social issues (supply of energy, response to climate change, respect for people, engagement with local communities, and enhancement of our business foundation)

To fully leverage the professional perspectives and distinguished knowledge of officers, the areas they can contribute in particular in the Company's management are marked with ○ following the discussion with each officer.

Position	Name	Corporate management and management strategy	Financial strategy and accounting	Legal affairs, risk management, and governance	Human resources strategy and diversity	Sustainability	DX and innovations	Sales	Engineering and R&D	Business and project development	Production technology and quality control	International business and Global	Reference
Director Chairman	Toshifumi Watanabe	○	○	○	○	○		○					Nomination and Compensation Committee Member
Director President	Hitoshi Kanno	○	○	○	○	○	○	○		○			Nomination and Compensation Committee Member Chair of Sustainability Promotion Board
Directors	Yoshikazu Shimada					○	○		○	○	○		Department Director of Renewable Energy
	Osamu Hagiwara					○			○	○	○		Department Director of Nuclear Power Business
	Hiroshi Sasatsu					○			○	○	○	○	Vice-Chair of Sustainability Promotion Board
	Isshu Kurata	○	○	○	○	○		○		○			Department Director of Energy Business
	Ryoji Sekine	○	○			○		○		○		○	Department Director of International Business Vice-Chair of Sustainability Promotion Board
	Takaya Nomura					○	○		○	○	○	○	Vice-Chair of Sustainability Promotion Board
	Hideaki Kato	○	○	○		○	○			○			Vice-Chair of Sustainability Promotion Board
	Tomonori Ito	Outside	○	○	○							○	Nomination and Compensation Committee Member
	John Buchanan	Outside	○	○	○	○						○	
	Takashi Yokomizo	Outside		○	○								Nomination and Compensation Committee Member
Directors Audit & Supervisory Committee Member	Hideo Kimura	○	○		○					○			
	Hiroshi Fujioka	Outside	○	○	○								Nomination and Compensation Committee Member
	Kimiko Oga	Outside	○		○	○	○	○					
	Shizuo Abe	Outside	○			○	○		○		○		

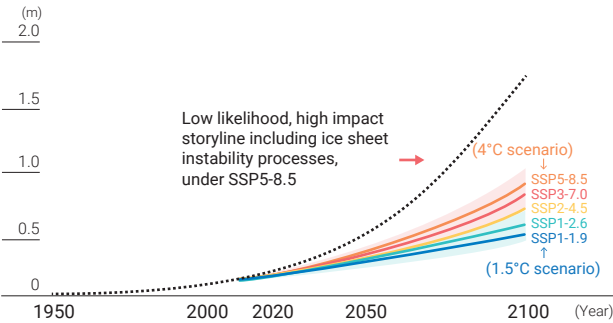
# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Strategy: Risk and Opportunities

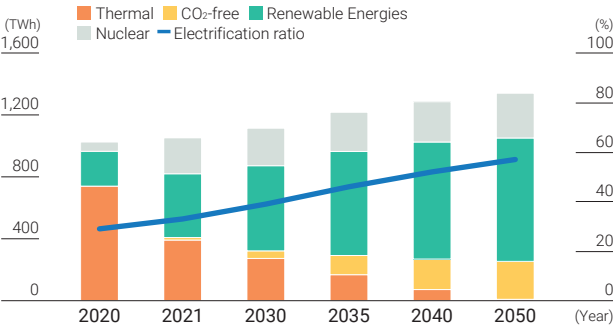
J-POWER Group endeavors to ascertain the variety of risks and opportunities that arise from environmental issues, and pushes forward with initiatives while consistently verifying risks as it strives to bolster competitiveness. We believe that climate change in particular will require measures in the utilization of new technology and a number of other domains, including measures for addressing regulatory reinforcement by national governments. These factors have the potential to exert considerable impact on J-POWER's business domains as well, which will create business-based risk. However, our view is that the ability to appropriately handle that risk will link to the bolstering of our competitiveness and the acquisition of new business opportunities. We have detailed risks related to climate change based on that view and identified risks with a particularly high degree of importance after also factoring in that degree of importance and concern on the part of stakeholders.

In our analysis of risk and opportunities, we assumed two cases: one where temperatures rise by 1.5°C and another by 4°C, and conducted analysis for both. In the former case, we assumed that formidable measures and regulations were enacted, and that in Japan as well, the renewable energy ratio grew by a wide margin, and the decarbonization of electric power progressed at a rapid pace. In the case where temperatures rise by 4°C, where it is assumed that global warming countermeasures will not be thoroughly enforced, it is projected that by the year 2100, the average ground temperature across the globe will rise by at least 4°C, and that average sea levels will rise nearly one meter. There are concerns that if measures to combat climate change are not sufficiently taken, the physical risks of climate disasters in 2050 and beyond in particular will become prominent.

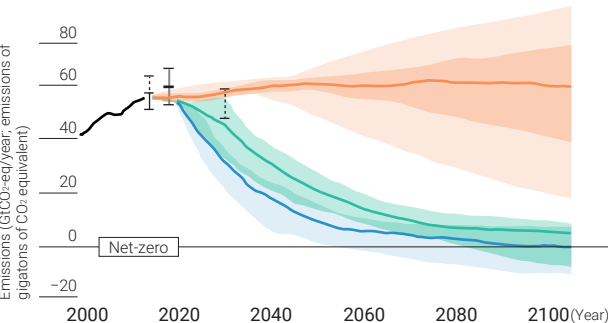
### Sea Level Rise by Scenario



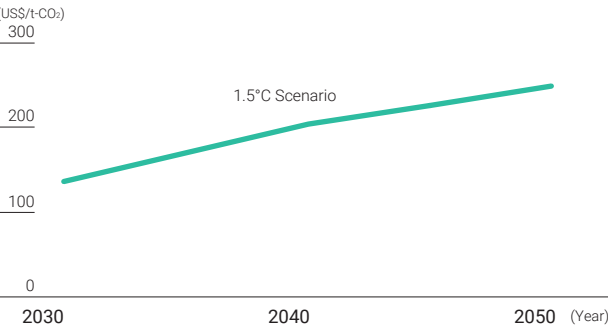
### Power generation volume in Japan, changes in electrification ratio (1.5°C scenario)



### Greenhouse Gas Reduction Pathways by Scenario



### Japan's Carbon Price Outlook









Configured scenarios	Reference scenarios	Scope and period covered	Scenario Description	Results of Scenario Analysis
1.5°C Scenario	<ul style="list-style-type: none"><li>"World Energy Outlook 2023 (WEO2023)" by the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario (NZE Scenario), Announced Pledges Scenario (APS Scenario)</li><li>Sixth Assessment Report by IPCC, etc.</li></ul>	Japan, in 2050 *For overseas scenarios please see the Column on p. 61.	Scenario in which formidable measures and regulations are enacted, carbon neutrality is achieved by 2050, and the rise in surface temperature is kept to 1.5°C	<ul style="list-style-type: none"><li>Development of technologies involving hydrogen, ammonia, and other energy sources will be promoted, and thermal power plants using these sources will continue to operate to some extent.</li><li>Maximum introduction of CO2-free power sources such as renewable energy and nuclear power</li><li>Electrification of the demand side and diffusion of distributed power sources will progress. Total power generation volume will increase with the growth of electrification</li><li>No significant increase in extreme weather events</li></ul>
4°C Scenario	<ul style="list-style-type: none"><li>SSP5-8.5 Scenario of the Sixth Assessment Report by IPCC</li></ul>		Maximum emission scenario in which climate policies are not introduced due to fossil fuels dependence-based developments	<ul style="list-style-type: none"><li>Distributed generation becomes widespread, but thermal power plants remain to some extent due to lack of technological alternatives</li><li>Despite progress in energy conservation and electrification, which are cost-effective with existing technologies, a significant portion of the energy system still relies on fossil fuels</li></ul>

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# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Strategy: Risk and Opportunities

	Division	Risk and opportunity category	Specific examples from the Company	Timing of occurrence			Response strategies								
				Short term	Medium term	Long term									
1.5°C Scenario	Transition risk	Policy, legal system, and regulation risk	<ul style="list-style-type: none"><li>● Introduction of carbon pricing</li><li>● Regulatory measures aimed at phasing out inefficient coal (book value of aging thermal facilities: 47 billion yen at the end of FY2023)</li></ul>	●	●	●	<ul style="list-style-type: none"><li>● Introducing internal carbon pricing and utilizing it upon making investment judgments Standard scenario: \$40/t-CO<sub>2</sub> (referring to WEO2023 STEPS*), Risk scenario: \$90/t-CO<sub>2</sub> (as of 2030) *While keeping in mind the carbon price of \$130/t in 2030 under the 1.5°C (NZE) scenario, when making investment judgments for the meanwhile, we will use an ICP set by referring to the STEPS scenario.</li><li>● Competitiveness assessment and phase-out policy development for power plants based on regulatory measures</li></ul>								
		Technology risk	<ul style="list-style-type: none"><li>● Thermal power generation facilities that have not taken steps to reduce CO<sub>2</sub> emission becoming stranded assets</li></ul>		●	●	<ul style="list-style-type: none"><li>● Reducing or discontinuing the operation of coal-fired thermal power plants while considering their importance in maintaining a steady energy supply; Progressive adoption and extension of emission reduction strategies including mixed combustion of biomass and ammonia and CCS, etc.; Eventual transition to CO<sub>2</sub>-free hydrogen power generation.</li></ul>								
		Market risk	<ul style="list-style-type: none"><li>● Changing preference for CO<sub>2</sub>-free electricity</li></ul>		●	●	<ul style="list-style-type: none"><li>● Formation of a balanced power supply portfolio (hydroelectric, wind, geothermal, solar, nuclear, CO<sub>2</sub>-free hydrogen power generation)</li><li>● Accelerate business expansion by leveraging the strengths as a top runner of renewable energy (Hydroelectric: No. 2, Wind: No. 2 in Japan)</li></ul>								
		Reputation risk	<ul style="list-style-type: none"><li>● Corporate image is affected due to CO<sub>2</sub> emissions</li><li>● Divestment and/or active engagement by investors</li></ul>	●	●	●	<ul style="list-style-type: none"><li>● Steady progress of J-POWER "BLUE MISSION 2050"</li><li>● Enhancement of information disclosure regarding climate change and continuous dialogue with stakeholders</li></ul>								
	Opportunities	Resource efficiency	<ul style="list-style-type: none"><li>● Developments in low carbon/decarbonization technologies and expansion of opportunities</li><li>● Improvement of existing asset value</li></ul>	●	●	●	<ul style="list-style-type: none"><li>● Creation of new value through existing assets (upcycling) Short- to medium-term: Promotion of GENESIS Matsushima Plan and NEXUS Sakuma Plan</li><li>● Initiatives to reduce CO<sub>2</sub> emissions Short- to medium-term: Expanded introduction of biomass, introduction of mixed combustion with ammonia, realization of CCS Long-term: Development of hydrogen mono-fuel combustion technology, conversion to CO<sub>2</sub>-free hydrogen power generation through CCS</li></ul>								
		Energy sources	<ul style="list-style-type: none"><li>● Realization of new businesses pertaining to hydrogen, ammonia, and other energy sources</li></ul>	●	●	●	<ul style="list-style-type: none"><li>● Challenges with CO<sub>2</sub>-free hydrogen manufacturing and initiatives geared toward supply Australian brown coal hydrogen project, joint examination of green ammonia manufacturing and negative emission hydrogen manufacturing, etc.</li></ul>								
		Products and services	<ul style="list-style-type: none"><li>● Increase in revenues due to expansion of renewable energy</li><li>● Provision of services that correspond to consumer and end user needs</li></ul>	●	●	●	<ul style="list-style-type: none"><li>● Increase renewable energy power generation in FY2030 by 4.0 billion kWh/year (compared to FY2022)</li><li>● Construction and operation of Ohma Nuclear Power Plant</li><li>● Direct sales of CO<sub>2</sub>-free electricity and associated environmental value to customers who need CO<sub>2</sub>-free electricity</li></ul>								
		Markets	<ul style="list-style-type: none"><li>● Increase in electricity sales volume due to progress in electrification</li><li>● Growing need for sustainable finance</li></ul>		●	●	<div><ul style="list-style-type: none"><li>● <b>Enhancement of our business foundation</b> Allocate investment funds to achieve J-POWER "BLUE MISSION 2050" Strategic investment up to FY2030: 700 billion yen</li><li>● <b>Diversification of financing (FY2023 Results)</b> 4th J-POWER Green Bonds: 20 billion yen (February 2024) Transition Link Loan: 20 billion yen (September 2023), 10 billion yen (February 2024)</li></ul></div> <div><b>Investment results and forecast</b><table><tr><th colspan="2">FY2023 Results</th><th colspan="2">FY2024 Forecast</th></tr><tr><td>About 120 billion yen</td><td>About 40% Renewable Energy Power Network Thermal Power Transition</td><td>About 190 billion yen</td><td>About 55% Renewable Energy Power Network Thermal Power Transition</td></tr></table></div>	FY2023 Results		FY2024 Forecast		 About 120 billion yen	About 40% Renewable Energy Power Network Thermal Power Transition	 About 190 billion yen	About 55% Renewable Energy Power Network Thermal Power Transition
		FY2023 Results		FY2024 Forecast											
	 About 120 billion yen	About 40% Renewable Energy Power Network Thermal Power Transition	 About 190 billion yen	About 55% Renewable Energy Power Network Thermal Power Transition											
Resilience	<ul style="list-style-type: none"><li>● Expansion of renewables, distributed power sources and businesses on the consumer side</li><li>● Diversification of low-carbon fuels</li><li>● Expansion of opportunities for network development conducive to renewable energy introduction</li></ul>	●	●	●											
4°C Scenario	Physical risk	Acute risk	<ul style="list-style-type: none"><li>● Facility damage caused by extreme weather such as torrential rain disasters, forest fires, cold waves and heat waves. Water shortage in power plants Negative impact on sales of 240 million yen per day should operation of a thermal power plant (1 million kW) be obstructed</li></ul>		●	●	<ul style="list-style-type: none"><li>● Carrying out revisions of BCP based on updated knowledge as appropriate</li><li>● Response to water risk Risk assessment and management utilizing WRI Aqueduct (3.0)* *A global standard assessment tool for water risk developed by the World Resources Institute (WRI).</li></ul>								
		Chronic risk	<ul style="list-style-type: none"><li>● Assumes negative impact on facilities caused by prolonged rises in average temperatures, changes in rainfall and rises in sea surface Thermal power generation facilities: 110 billion yen, Hydroelectric power generation facilities: 75 billion yen *Calculated by multiplying the current book value of thermal and hydroelectric facilities with the rate of 0.296 for damage by 0.5 m sea-level rise and 0.189 for flooding damage, respectively.</li></ul>			●									

Short term: Up to 2030    Medium term: Up to 2040    Long term: Up to 2050



## Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

### Strategy: Scenario analysis toward carbon neutrality in 2050: Japan as a whole

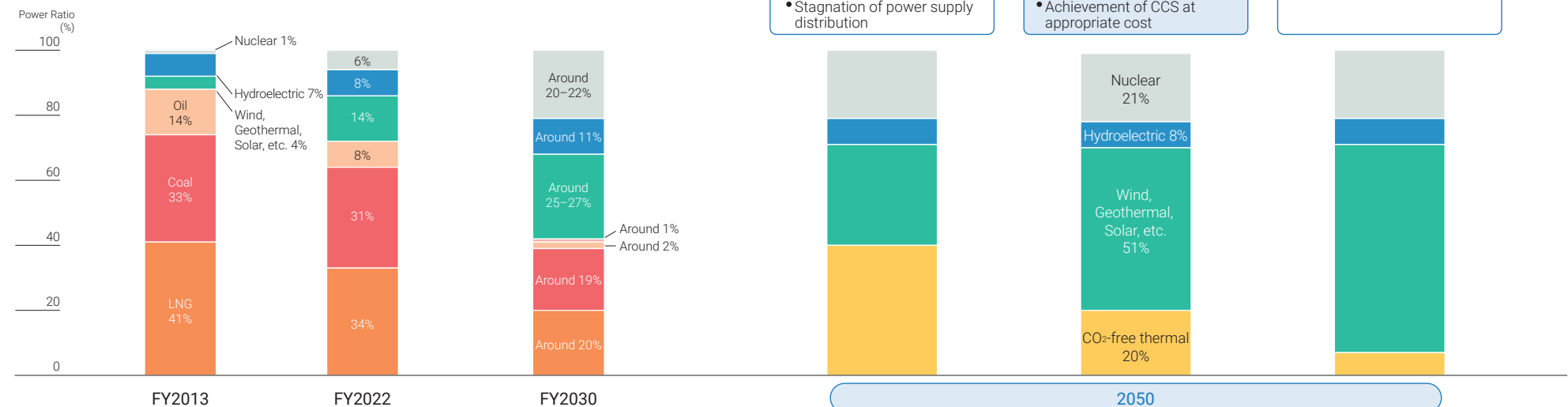
The J-POWER Group performed climate change scenario analysis for Japan as a whole, based on the 1.5°C scenario advocated in the Paris Agreement, which pursues efforts to limit the average temperature increase at the end of this century to less than 1.5°C above pre-industrial levels. The 1.5°C scenario dictates that CO<sub>2</sub> emissions must essentially be kept to zero (carbon neutrality) by 2050. IEA's WEO2023 NZE 1.5°C scenario does not lay out the energy mix in 2050 in Japan. We therefore have adopted the APS scenario under WEO2023 as the main scenario for our scenario analysis, since it projects the energy mix in 2050 in Japan, which is assumed to have achieved carbon neutrality by then. The power source composition for FY2030 is based on the Japanese government's Sixth Strategic Energy Plan.

According to IEA projections, by the year 2050, total variable renewable energy (VRE) as represented by solar and wind power will be 70% of total power in the EU and the U.S. Conversely, in 2050 Japan, VRE and total renewable energy are projected at 40% and 60%, respectively, with nuclear power accounting for 20% and the remaining 20% comprised of hydrogen/ammonia and thermal power + CCS. We believe this is because electric power systems in Japan are interconnected in tandem rather than mesh-shaped like their Western counterparts, leaving them with weak cross-regional interconnection capacity and poor versatility and flexibility. In addition, there are also constraints on the introduction of VRE due to the lack of appropriate sites for it, and therefore from the perspective of stable supply, making it necessary to provide

supply and adjustment capacity through CO<sub>2</sub>-free thermal power generation.

Note that the actual environment in the year 2050 may not take the shape of the assumptions under this main scenario, as there are many uncertainties involved including progress of innovation. Given that, we also analyzed scenarios in which preconditions related to renewables and thermal power generation were modified, which are believed to be areas where the Group will be particularly impacted.

#### Energy mix in Japan



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Supplementary Material:&lt;Social&gt;

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# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

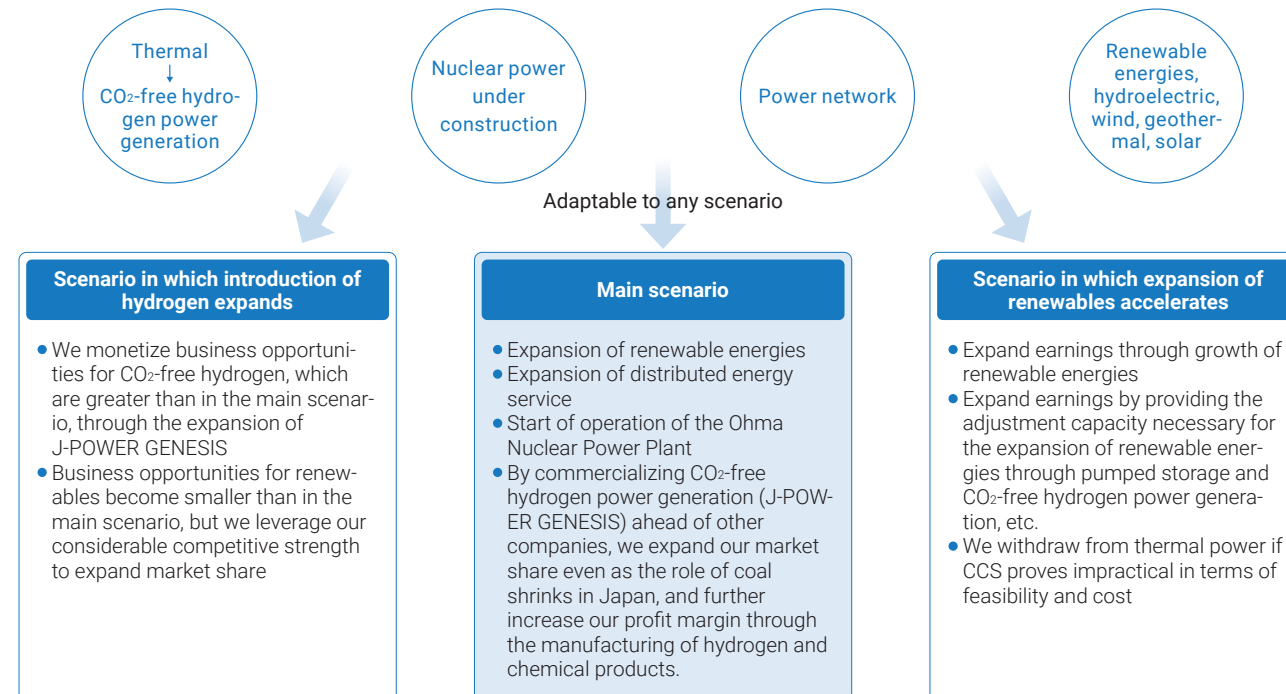
## Strategy: Scenario analysis toward carbon neutrality in 2050: J-POWER Group

Based on the scenario analysis of Japan as a whole on the previous page, power generators, including the J-POWER Group, will need to focus on developing renewable energy sources to achieve carbon neutrality in 2050, approx. 30 years from now, while also converting coal- and gas-fired power generation eventually to CO<sub>2</sub>-free hydrogen from the perspective of stable supply. We believe it to be economically sound to convert to CO<sub>2</sub>-free hydrogen by making gradual capital investments (upcycling) in the latest innovations while utilizing existing power plant infrastructure that is being depreciated. We also believe that upcycling is an important means of sustainably using developed renewable energy.

The Group has formed and operated a well-balanced power source portfolio consisting of renewable energies

(hydroelectricity, wind, geothermal, and solar) and thermal power, and has also accumulated a wealth and wide range of technologies and expertise in nuclear power construction and the development of CO<sub>2</sub>-free hydrogen production and generation technologies. Therefore, by accelerating the expansion of renewable energy and flexibly upcycling existing power generation facilities while keeping an eye on the progress of innovation and economic trends, we can respond to not only the main scenario of Japan's energy mix in 2050, but also the scenario in which expansion of renewables accelerates and the scenario in which introduction of hydrogen expands.

### ● The extensive and wide-ranging technologies and knowledge of the J-POWER Group



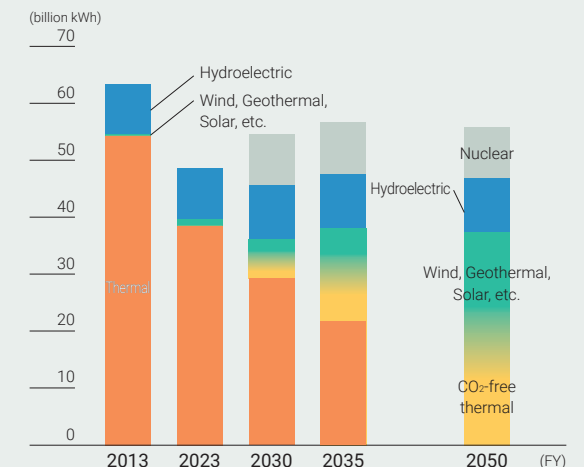
## Column

### Projected Electricity Generated by J-POWER

Based on the above scenario analyses and our transition strategy, J-POWER "BLUE MISSION 2050," we have projected the transition of our power generation volume to carbon neutral by 2050 with certain assumptions. In FY2023, approx. 80% of the power generated in Japan was thermal power. 2050 will see the expansion of renewable energy\*, which is a priority for development, as well as the addition of nuclear power generation. We will continue to reduce or eliminate thermal power generation, while taking into consideration its role in ensuring a stable supply. We will gradually introduce and expand measures to reduce CO<sub>2</sub> emissions, such as mixed combustion (biomass and ammonia) and CCS, and eventually convert to CO<sub>2</sub>-free hydrogen power generation.

\*Our wind power generation capacity is assumed to expand in pace with the expansion of wind's share in Japan's overall generation capacity under the APS scenario.

### ● J-POWER Group's Electricity Generation Trends and Forecasts



# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

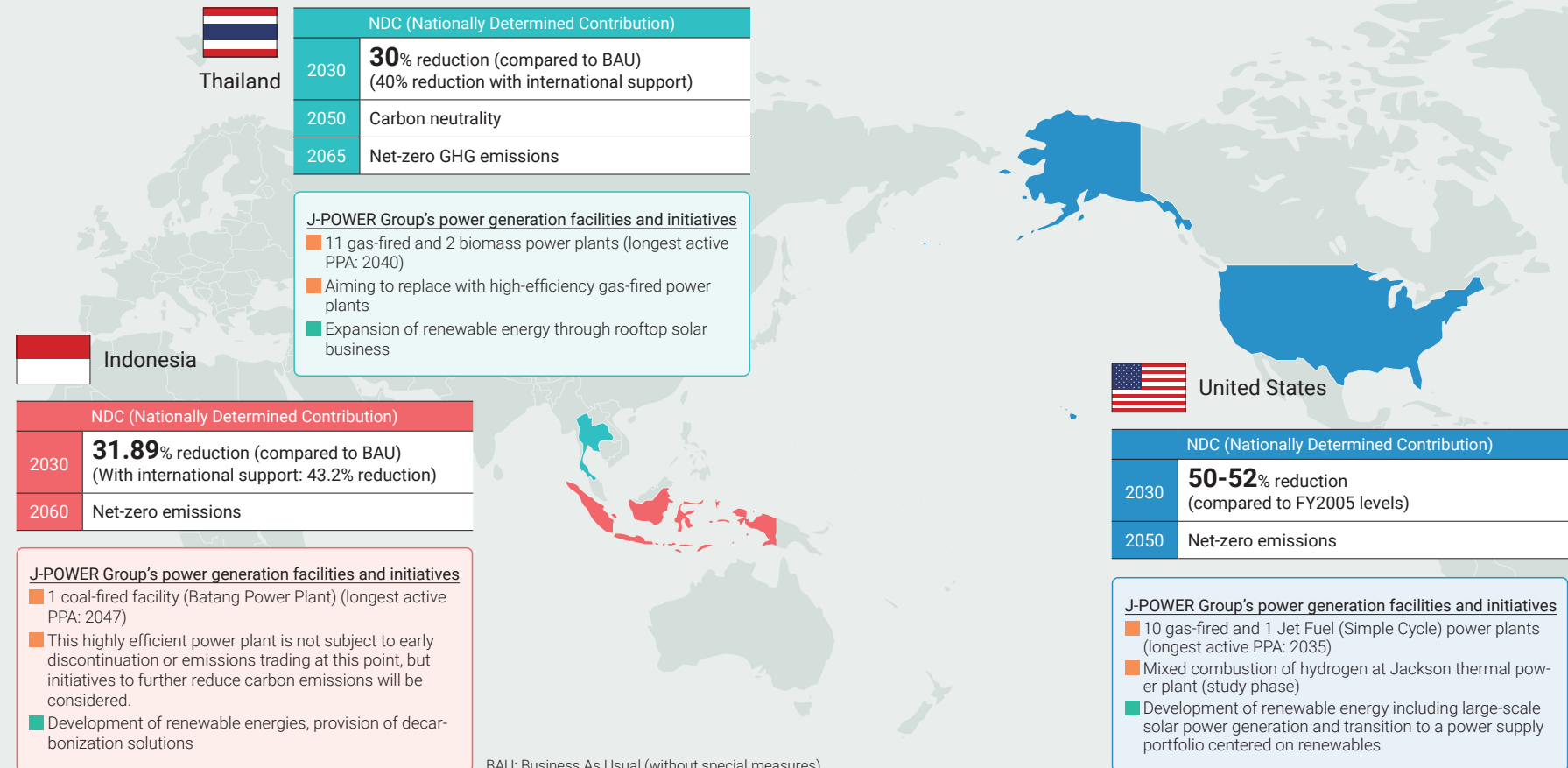
## Column

### Strategy: Scenario analysis toward carbon neutrality in 2050: J-POWER Group's major overseas thermal power generation facilities

In its international business, the J-POWER Group is working to improve the investment efficiency of existing assets and advancing into new business segments, conscious of profit scale and profitability and to build a profit base on a short-, medium- and long-term perspective.

Countries have announced their nationally determined contributions toward carbon neutrality. None of them, however, have committed to a single path, and instead presented

multiple scenarios in their vision to carbon neutrality. They share other commonalities in their vision such as further promotion of renewable energy, electrification, hydrogen use, utilization of CCS and that they all rely on future innovations. The J-POWER Group will also continue to invest in decarbonization and develop renewable energy in line with the respective decarbonization policies of each county in which we operate.





# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Transition plan to achieve goal of carbon neutrality in 2050: J-POWER “BLUE MISSION 2050”

### Realizing a carbon-neutral, hydrogen society (the value we provide to society)

The J-POWER Group has formulated the J-POWER “BLUE MISSION 2050” to accelerate its efforts to address climate change. We are steadily working to achieve a carbon neutral, hydrogen-based society by promoting the three pillars of expanding CO<sub>2</sub>-free power sources; push for zero-emission power sources; and stabilization and enhancement of the electric power network.

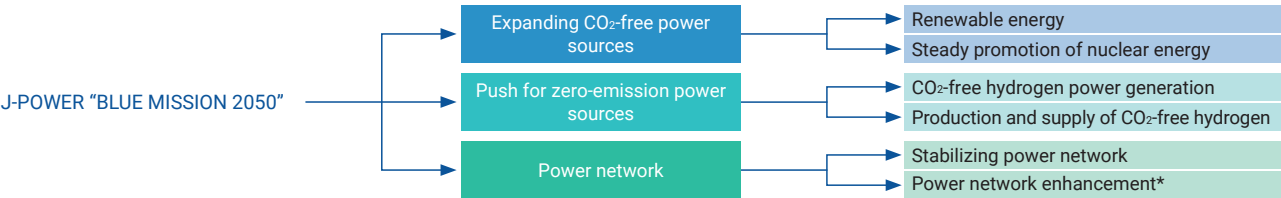
The Company has been engaged in hydroelectric, thermal, wind, and geothermal power generation, transmission, and transformation business upholding our mission to “meet people’s needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world.” To achieve this mission, we aim to further develop the comprehensive technological capabilities and balanced portfolio that we have cultivated over the years, and will approach our work from various angles.

With an eye toward 2050, we will take on the challenge of incrementally achieving carbon neutrality in our power generation business. As a milestone, we aim to reduce CO<sub>2</sub> emissions by 9.2 million tons in 2025 and 46% in 2030 compared to the FY2013 level.

\*For further details on J-POWER “BLUE MISSION 2050,” see p.21 of 2024 Integration Report

We will contribute to the sustainable development of Japan and the rest of the world by balancing stable energy supply and efforts to fight climate change.

### The three pillars of J-POWER “BLUE MISSION 2050”



### J-POWER “BLUE MISSION 2050” Roadmap

CO <sub>2</sub> emission reduction target of domestic power generation business (compared to FY2013)		-9.2 million tons		-22.5 million tons -46%		Realization of carbon neutrality Net-zero emissions			
		2025		2030		2040		2050	
Expanding CO <sub>2</sub> -free power sources	Renewable energy	Increase of domestic power generation volume by 4.0 billion kWh Global development of new renewable energy projects			Additional new developments, upcycling of existing facilities and maximum use of existing assets				
	Nuclear	Construction and start of operations at Ohma Nuclear Power Station							
Push for zero-emission power sources	Domestic coal-fired power	Gradual phase-out of aging power plants		CO <sub>2</sub> reduction initiatives (Expansion of biomass mixed combustion, introduction of ammonia mixed combustion, etc.)					
	CCS	Development of business environment, design and construction of facilities			Injection and storage		Achieve CO <sub>2</sub> -free thermal power generation (Hydrogen, ammonia, IGCC+CCS, biomass mixed combustion +CC, etc.)		
	Hydrogen power generation	Demonstration tests in Japan		Upcycling (adding gasifiers to existing assets)					
	Fuel production (CO <sub>2</sub> -free hydrogen)	Feasibility study on overseas production		Utilization in other industries					
Power network	Stabilization	Hydroelectric power generation, improvement of load tracking performance by upcycling (adding a gasifier to existing assets), and expansion of distributed energy service							
	Reinforcement*	Completion of reinforcement of the New Sakuma Frequency Converter Station, etc.			Contribution to power network enhancement				

\*Strengthening the power network is an initiative of J-POWER Transmission Network Co., Ltd.

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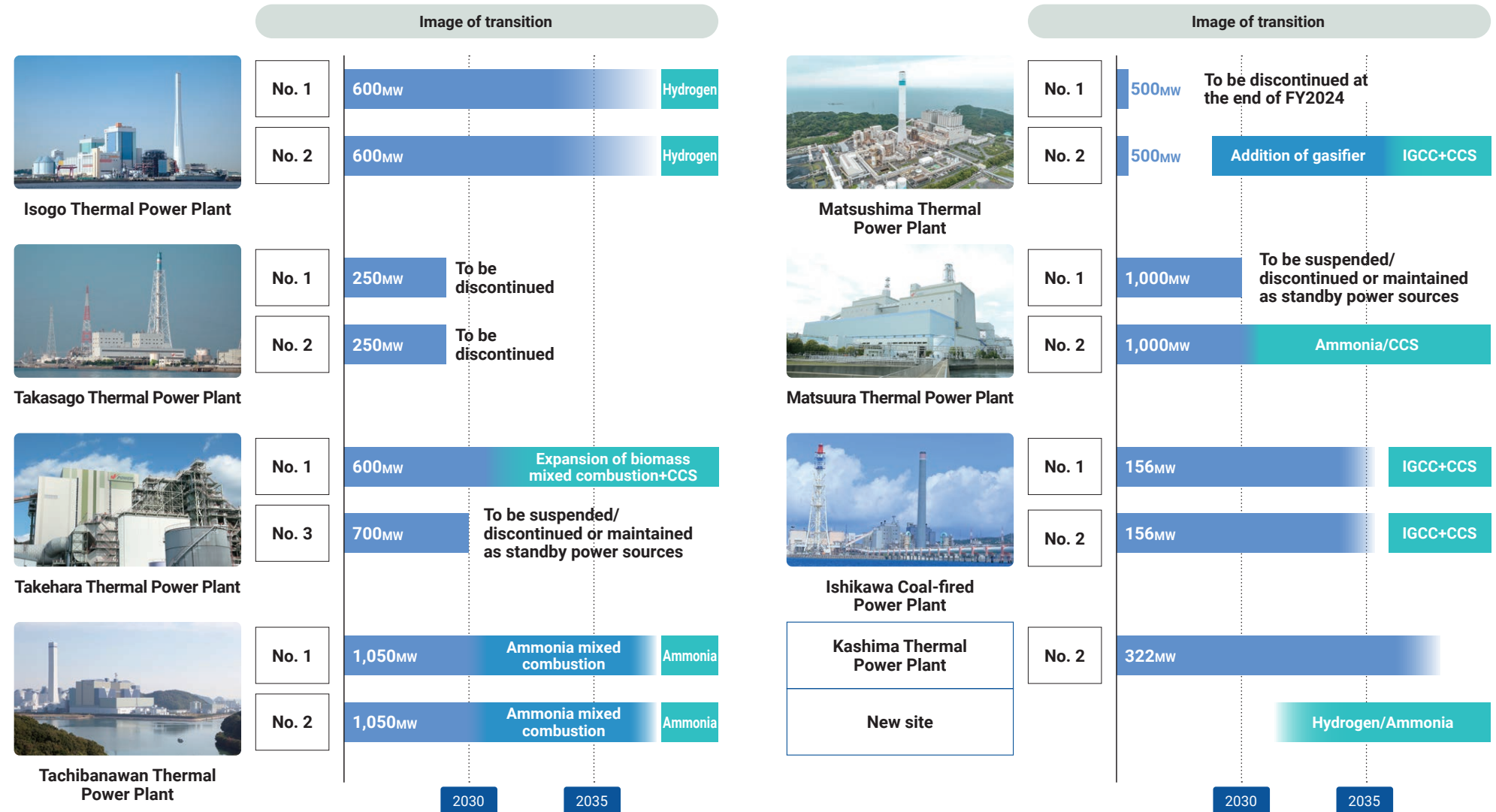
J-POWER Group Integrated Report 2024

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# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Direction for thermal power transition in Japan

Based on our BLUE MISSION 2050 roadmap, the J-POWER Group will advance its CO<sub>2</sub> reduction and decarbonization initiatives, while contributing to a stable power supply. This includes phasing out inefficient coal-fired power plants and converting high-efficiency thermal power plants using the optimal technology according to the local characteristics of the site.



\*The plan will be updated, reviewed, and refined as needed based on changes in the assumptions including the Japanese government's GX policy (Strategic Energy Plan, global warming countermeasures, NDC, etc.), power demand-supply situation, power system design, and progress of industry development, etc.

# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Strategy: 2030 Scenario Analysis –J-POWER Group–

As part of our J-POWER “BLUE MISSION 2050,” the J-POWER Group has set a milestone of a 46% reduction in CO<sub>2</sub> emissions by 2030 and a goal of becoming carbon neutral by 2050. These targets are in line with the NDC (Nationally Determined Contribution) made by Japan for the Paris Agreement. The financial impacts and specific initiatives for a 46% reduction are estimated in the 2030 scenario analysis.

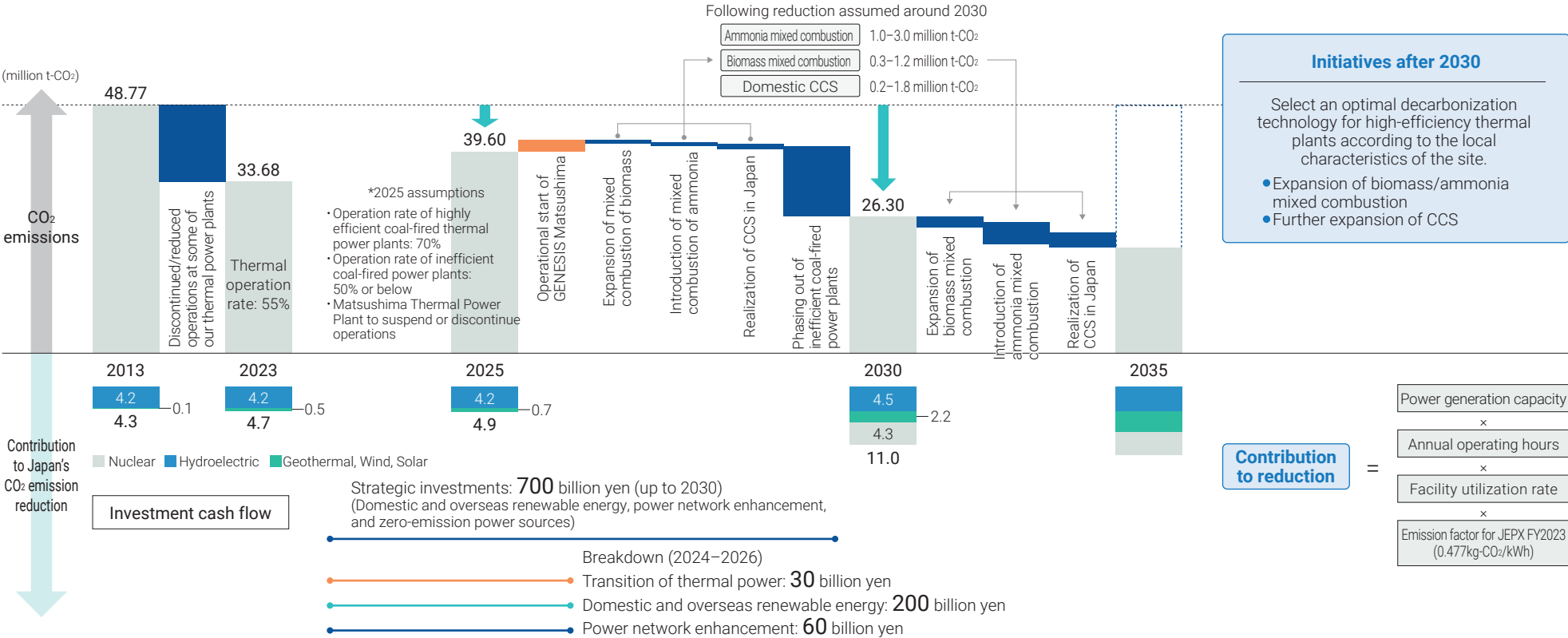
By reducing the use of thermal power, mixed combustion of biomass/ammonia, upcycling existing facilities, and

implementing CCS in Japan, we will gradually reach our CO<sub>2</sub> reduction target by 2030. On the following page, the results of our financial analysis of scenarios based on our reduction targets are shown. We will work to offset the effects of the decrease in thermal power sales through our efforts to increase renewable energy in order to reduce the financial burden of our response to climate change.

We have established a target to increase renewable energy by 4.0 billion kWh compared to FY2022 by FY2030.

If J-POWER develops CO<sub>2</sub>-free power sources like renewable energy, it will replace other thermal power sources in Japan as a whole and help the country lower its CO<sub>2</sub> emissions overall. By 2030, we predict that our CO<sub>2</sub>-free power sources will have contributed to reducing roughly 11 million tons of emissions, growing from about 4.7 million tons in 2023.

### Contribution to Japan’s overall CO<sub>2</sub> emission reduction brought by J-POWER’s initiatives to achieve CO<sub>2</sub> reduction targets and its CO<sub>2</sub>-free power sources





## Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

### Strategy: 2030 Scenario Analysis—Estimated Financial Impact—

As a result of several steps—the implementation of carbon pricing, support for the development and introduction of CO<sub>2</sub> emission reduction measures, and more—to reach carbon neutrality in 2050, it is anticipated that Japan's energy costs would rise in the future. Although the estimated financial impact contains information that will result in higher expenses, the J-POWER Group will work to control rising energy bills using methods that are economically sound.

#### Financial impact in 2030: According to our reduction target (46% reduction; reduction of 22.5 million tons) (1/2)

	Factors	Calculation details	Impact in value
Thermal power	Phase-out of inefficient coal-fired thermal power plants	<ul style="list-style-type: none"><li>An estimated 10 billion yen decrease in ordinary profit mainly due to the closure of inefficient coal-fired thermal power plants</li></ul> <p><small>*In cases where such coal-fired plants are maintained as standby power sources, no additional impact was assumed based on the assumption that institutional support will be provided.</small></p>	Decrease in profits of approx. 10 billion yen
	Carbon pricing (CP)	<ul style="list-style-type: none"><li>Calculated assuming a carbon price of \$40/t in 2030, based on our internal carbon pricing (ICP) standard scenario; Increase in costs of approx. 150 billion yen</li><li>Predicting the precise impact is challenging due to the expected rise in non-fossil value and associated revenue from CO<sub>2</sub>-free power sources, and the potential for part of the cost to be passed on to power charges</li><li>Impact on carbon pricing will be regularly reconsidered paying close attention to Japan's energy policies to achieve green transformation</li></ul> <p>(Exchange rate: 1US\$=142 yen)</p> <div><div>Impact on CP</div> = <div>CP (\$40-tCO<sub>2</sub>)</div> × <div>CO<sub>2</sub> emissions (26.30 million t-CO<sub>2</sub>)</div></div>	—
	Biomass/ammonia mixed combustion	<ul style="list-style-type: none"><li>When reducing CO<sub>2</sub> emissions, the application of decarbonization options is deemed beneficial if the following formula holds.</li><li>Reduction measures to be applied to CO<sub>2</sub> emissions around 3 million tons: <b>CO<sub>2</sub> reduction cost</b> is assumed at 12–54 billion yen.</li><li>Reduce impact using policy support, etc. Work to make the CO<sub>2</sub> reduction cost to be lower than the CO<sub>2</sub> cost.</li></ul> <div><div>CO<sub>2</sub> price</div> &gt; <div>CO<sub>2</sub> reduction cost</div> - <div>Support system</div></div>	—
	Biomass/ammonia mixed combustion	<div><div>2030 CP (yen/tCO<sub>2</sub>)</div> × <div>CO<sub>2</sub> reduction achieved by using carbon-neutral fuel</div> &gt; <div>Power generation volume (kWh) using carbon-neutral fuel × <div>Cost of mixed combustion with carbon-neutral fuel (yen/kWh) - Power generation cost using coal only (yen/kWh)</div></div> - <div>Policy support</div></div>	
	Introduction of CCS	<div><div>CP in 2030 (yen/tCO<sub>2</sub>)</div> &gt; <div>Separation and capture expenses (yen/tCO<sub>2</sub>) + Transportation expenses (yen/tCO<sub>2</sub>) + Storage expenses (yen/tCO<sub>2</sub>) - <div>Policy support</div></div></div>	
	GENESIS Matsushima Plan	<ul style="list-style-type: none"><li>By adding gasification facilities and other equipment to the existing Matsushima Thermal Power Plant and “upcycling” it, we aim to reduce CO<sub>2</sub> emissions by 10% as soon as possible while contributing to a stable supply. We will pursue CO<sub>2</sub>-free hydrogen power generation in the future.</li><li>Use the Long-Term Decarbonization Power Source Auction to recoup capital expenditures and other fixed costs.</li></ul>	0
	Reduction in coal-fired thermal power repair expenses and renewal investment	<ul style="list-style-type: none"><li>Constraining repair expenses and renewal investment for coal-fired thermal power plants prior to reduction of operations anticipated from 2030.</li><li>Actual repair costs for, as well as investments to replace, coal-fired thermal power will require about 45 billion yen per year, while investment for renewal will require about 20 billion yen per year. We will work to reduce some of these expenses.</li></ul>	+a

## Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

Financial impact in 2030: According to our reduction target (46% reduction; reduction of 22.5 million tons) (2/2)

	Factors	Calculation details	Impact in value
CO <sub>2</sub> -free power sources	New development of renewable energies	<ul style="list-style-type: none"><li>Estimated from the power generation value from new development of renewable energy and non-fossil value</li></ul> <div><div>Power generation volume of renewable energies</div><div>+4.0 billion kWh</div><div>FY2022</div><div>➡</div><div>FY2030</div></div>	Profit increase of 10 billion yen and above
	Expansion of revenues for existing renewable energy	<ul style="list-style-type: none"><li>Enhance the non-fossil value of existing renewables (10 billion kWh)</li></ul>	
	Ohma Nuclear Power Station (under construction)	<ul style="list-style-type: none"><li>The impact of the project has not been included in the financial impact estimation as it is currently under review based on the new regulatory criteria.</li></ul>	—

2030: If aligned with the 1.5°C target of the IPCC Sixth Assessment Report (+2.4 million tons reduction)

We also analyzed the GHG emissions in the 1.5°C pathway as outlined in the IPCC Sixth Assessment Report (AR6). According to the IPCC AR6, the global model pathway for limiting global warming to 1.5°C (>50%) with no or limited overshoot requires emissions reduction of 43% by 2030 and 60% by 2035 against 2019 levels. These targets are equivalent to 51% reduction against 2013 levels in Japan, and when translated to reduction targets of the J-POWER Group, it would require an additional 2.4 million tons of reduction on top of our current 2030 target.

IPCC Sixth Assessment Report

43% reduction\* by 2030, 60% reduction by 2035 (compared to 2019)  
↓  
\*Equivalent to 51% reduction (compared to FY2013) in Japan's NDC  
Converted to our "BLUE MISSION 2050"  
24.9 million ton reduction (compared to FY2013) in FY2030  
(an additional reduction of 2.4 million tons)

Financial impact

Additional measures for approx. 500 MW of coal-fired thermal power are needed

Although costs are expected to increase by about 10–44 billion yen, we will try to reduce the impact by making maximum use of an optimal combination of options, policy support, etc.



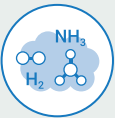
Reduction of operations

AND/OR



Biomass

AND/OR



Hydrogen/ammonia

AND/OR



CCS

## Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

### Risk Management

The J-POWER Group assesses numerous risks related to corporate activities in order to uphold and enhance its financial soundness and corporate value. The Sustainability Promotion Board analyzes and assesses sustainability issues, including climate change, and discusses mitigation strategies.

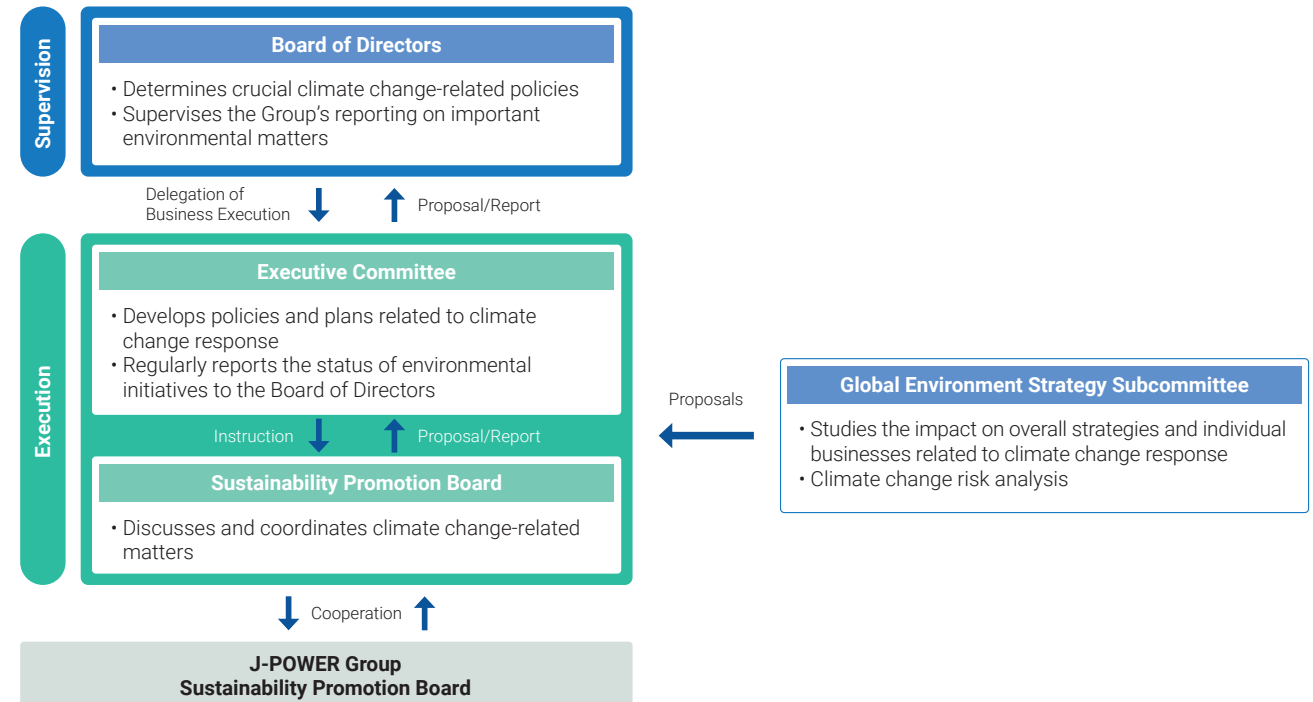
Under the Sustainability Promotion Board, the Global Environmental Strategy Subcommittee has been established as a promotion structure to evaluate climate change threats, hold discussions, and make recommendations or reports to the Executive Committee and Board of Directors.

The Board of Directors works to identify risks, including those related to ESG and sustainability, at an early stage by receiving regular reports on the status of business execution and by ensuring mutual checks and balances in the internal decision-making process, discussions at various meetings, and the creation of a crisis management system in accordance with internal regulations. In addition, we are aiming to reduce the effect of losses when they occur while fully understanding and minimizing risks in the execution of company activities, including ESG and sustainability risks.

### Indicators and Targets: Greenhouse gas (GHG) emissions

J-POWER Group has obtained third-party certification for all of Scopes 1-3 GHG emissions.

★ represents FY2023 data for which the Group has obtained third-party certification.



### GHG Emissions 3-year Results

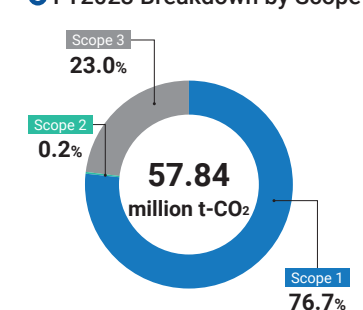
	FY2021	FY2022	FY2023
<b>Scope 1</b>	<b>47.95</b>	<b>48.91</b>	<b>44.39</b>
Domestic power generation business	41.62	40.64	33.68
Overseas power generation business	4.9	7.94	10.27
Other	1.42	0.33	0.43
<b>Scope 2 (Location criteria)</b>	<b>0.14</b>	<b>0.15</b>	<b>0.14</b>
<b>Scope 3</b>	<b>13.60</b>	<b>13.17</b>	<b>13.31</b>
<b>Total</b>	<b>61.68</b>	<b>62.23</b>	<b>57.84</b>

**Scope 1** : Direct greenhouse gas emissions by business operators themselves (burning fuel and industrial processes)

**Scope 2** : Indirect emissions accompanying use of electricity and heat/steam from other companies

**Scope 3** : Indirect emissions other than Scope 1 and Scope 2 (emissions by other companies related to the activities of the business)

### FY2023 Breakdown by Scope





# Climate Change Scenario Analysis (Disclosure Based on TCFD Recommendations)

## Indicators and Targets

### Targets

Push for zero-emission power sources

### Indicators

- ① A reduction of 9.2 million tons\* in FY2025
- ② 2030: Reductions of 46% (22.5 million tons)\*

\*Compared to FY2013



Biomass



Hydrogen, Ammonia



CCS

### ① FY2025: Reductions of 9.2 million tons of emissions from domestic power generation business

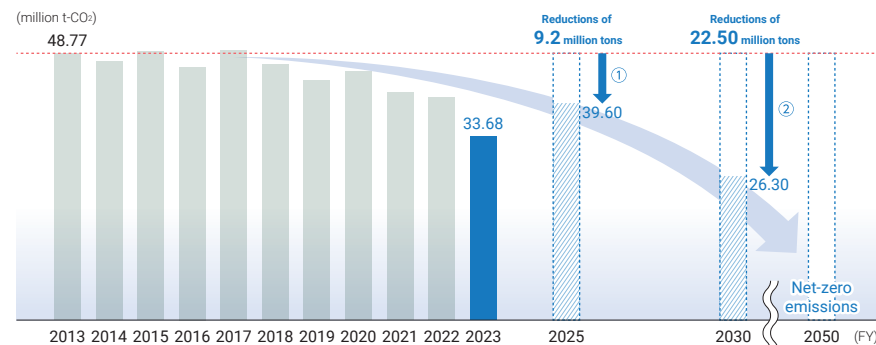
- Decrease in power generated by Matsushima Thermal Power Plant due to the construction of GENESIS Matsushima
- Expansion of biomass mixed combustion (10% by weight mixed-combustion at the Takehara Thermal Power Plant New Unit No. 1)
- Reducing the operation of aging coal-fired thermal power plants (Takasago and Takehara Unit No. 3)

### ② 2030: Reductions of 46% (22.5 million tons) of emissions from domestic power generation business

- Expansion of biomass mixed combustion
- Introduction of ammonia mixed combustion
- Realization of CCS in Japan
- Reducing or discontinuing the operation of aging coal-fired thermal power plants

\*Book value of aged coal-fired thermal power plants is approx. 47 billion yen.

### ● Changes in CO<sub>2</sub> emissions in domestic power generation business



### Targets

Expansion of CO<sub>2</sub>-free power sources

### Indicators

FY2030 Power generation volume of renewable energy +4.0 billion kWh/year\*

\*Compared to FY2022



Wind



Hydroelectric



Solar



Geothermal

### Major CO<sub>2</sub>-free power sources in operation (since FY2023)



New Nikaho Kogen Wind Farm, Akita Pref.  
Owned capacity: 24.75 MW

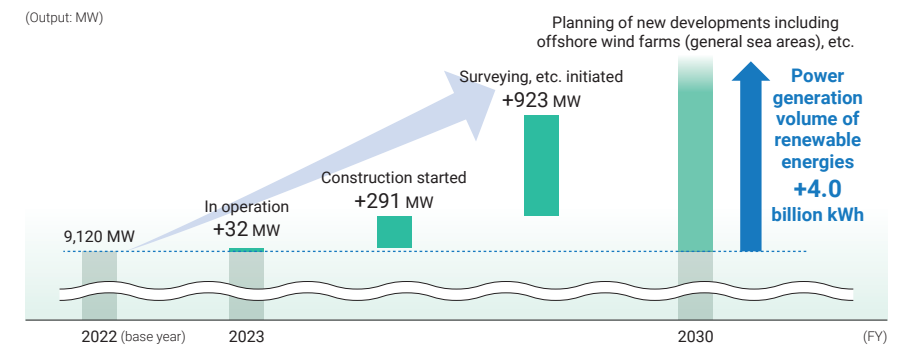


Ishikari Hachinosawa Wind Farm, Hokkaido  
Owned capacity: 14.7 MW



Onikobe Geothermal Power Station, Miyagi Pref.  
Owned capacity: 14.9 MW

### ● Trends in the development of renewable energy (Domestic)



### Column

#### Relationship between the J-POWER Group's CO<sub>2</sub> reduction results and SBT indicators

The Science Based Targets initiative (SBTi) calls for companies in the power sector to set intensity-based emission targets. The J-POWER Group has set its target based on actual emission volume and is working toward its achievement.

The rate of J-POWER's emissions reduction for the period from FY 2022 (40.64 million tons) to FY 2030 (target of 26.30 million tons) is 4.4%, exceeding the annual reduction rate of 4.2% required by SBTi for a 1.5°C trajectory alignment.

# J-POWER Group and the Environment

Material issues ▶



- As a Company involved in the supply of energy, the J-POWER Group contributes to the sustainable development of Japan and the world while seeking harmony with the environment.

J-POWER Group Environmental Basic Policy	
Addressing Climate Change	Work on realizing carbon neutrality using our experience and technology to provide a constant energy supply and bring about a sustainable society.
Addressing Local Environment Issues	Seek to operate in harmony with local environments by adopting measures to reduce the environmental impact of our operations while working to save, recycle, and reuse resources in order to limit waste.
Ensuring Transparency and Reliability	Ensure that our business activities comply with all applicable laws and regulations, disclose a wide range of environmental information, and enhance communication with stakeholders.

J-POWER Group Environmental Targets		
Addressing Climate Change	<ul style="list-style-type: none"><li>Accelerating the development of CO<sub>2</sub>-free power sources</li><li>Reducing greenhouse gas (GHG) emissions</li></ul>	<ul style="list-style-type: none"><li>Power generation volume of domestic renewable energy +4.0 billion kWh/year by FY2030 (compared to FY2022)*</li><li>Promotion of the Ohma Nuclear Power Plant Project with safety as a major prerequisite</li><li>9.20 million ton CO<sub>2</sub> reduction from domestic power generation business by FY2025 (compared to FY2013 results)</li><li>22.50 million ton CO<sub>2</sub> reduction from domestic power generation projects by 2030 (46% decrease) (compared to FY2013 results)</li><li>Achieve the benchmark for thermal power generation under the Act on Rationalizing Energy Use by FY2030</li></ul> <p>*Target was revised on June 2024. Previous target: Development of more than 1,500 MW by FY2025</p>
Addressing Local Environment Issues	<ul style="list-style-type: none"><li>Creation of a recycling-oriented society</li><li>Biodiversity preservation</li><li>Protecting aquatic environments</li></ul>	<ul style="list-style-type: none"><li>Effective utilization rate of industrial waste: Approx. 97%</li><li>Reduction of waste plastic emissions and recycling of resources</li><li>Consideration for biodiversity preservation in business activities</li><li>Consideration for the preservation of river and marine environments in business activities</li></ul>
Ensuring Transparency and Reliability	<ul style="list-style-type: none"><li>Improvement of environmental management level</li><li>Full compliance with environmental laws and agreements</li><li>Environmental communication activities</li></ul>	<ul style="list-style-type: none"><li>Continuous improvement of EMS</li><li>Zero serious violations of environmental laws and agreements</li><li>Environmental communication activities in local communities and within the Company</li></ul>

J-POWER Group Environmental Action Guidelines
Issues that the J-POWER Group should address, and main details of initiatives (For details, see J-POWER Group Integrated Report 2024 Supplementary Material: Environment.)

J-POWER Group Divisional Environmental Targets
Each department sets and works on its own targets, taking into consideration the J-POWER Group Environmental Targets and Environmental Action Guidelines.

Addressing Climate Change

	Target	Main Achievements in FY2023	Evaluation
Accelerating the development of CO <sub>2</sub> -free power sources	Development of more than 1,500 MW by FY2025* *Target was revised as below on June 2024. Power generation volume of domestic renewable energy +4.0 billion kWh/year by FY2030 (compared to FY2022)	<ul style="list-style-type: none"><li>Compared to the new development of 1,500 MW (compared to FY2017) targeted for FY2025, the total of start of operation, start of construction, and start of survey projects was 2,638 MW. We are confident that the target will be achieved.</li><li>Major projects to begin operation on or after April 2023 *Figures in parenthesis indicate owned capacity New Nikaho Kogen Wind Farm (24.75 MW), Ishikari Hachinosawa Wind Farm (14.7 MW), Onikobe Geothermal Power Station (14.9 MW), etc.</li><li>Construction already started Hibikinada Offshore Wind Power Project (max. 88 MW), Hibikinada Solar Power Plant (approx. 30 MW), Himeji Oshio Solar Power Plant (approx. 2 MW), etc. Repowering of other existing hydroelectric and wind power plants are also underway.</li></ul>	Ongoing
	Promotion of the Ohma Nuclear Power Plant Project with safety as a major prerequisite	<ul style="list-style-type: none"><li>For the Ohma Nuclear Power Plant Project, we carried out studies for safety enhancement measures and responded to the review of compliance with the new safety standards.</li><li>In addition, we implemented initiatives to gain the understanding and trust of the local community.</li><li>Construction work to improve safety will begin in the second half of 2024 and targeted to finish in the second half of 2029.</li></ul>	Ongoing
Reducing greenhouse gas (GHG) emissions	9.20 million ton CO <sub>2</sub> reduction from domestic power generation business by FY2025 (compared to FY2013 results)	<ul style="list-style-type: none"><li>FY2025 target was achieved, with FY2023 CO<sub>2</sub> emissions reduction at 15.09 million tons (emission of 33.68 million tons). *Compared to FY2013 results In view of lower utilization rate of thermal power plants due to their use as intermediate load power source and some equipment troubles, we continue to work on steadily to achieve the FY2025 target.</li><li>Expansion of mixed combustion of biomass (Takehara Thermal Power Plant New Unit No. 1) and consideration of curbing operation of aging coal-fired power plants are underway.</li><li>Announced the discontinuation of the existing Matsushima Unit No. 1 and the suspension of the operation of Unit No. 2 as of the end of FY2024, in view of the preparation of construction for GENESIS Matsushima Project.</li></ul>	Ongoing
	22.50 million ton CO <sub>2</sub> reduction from domestic power generation projects by 2030 (46% decrease) (compared to FY2013 results)	<ul style="list-style-type: none"><li>We are working to expand mixed combustion of biomass, introduce mixed combustion of ammonia, achieve domestic CCS, and study ways to curtail or eliminate the operation of aging coal-fired power plants.</li><li>The GENESIS Matsushima Project, the first step toward CO<sub>2</sub>-free hydrogen power generation, has been undergoing environmental impact assessment procedures since September 2021 to add a coal gasification facility to the existing power plant.</li></ul>	Ongoing
	Achieve the benchmark for thermal power generation under the Act on Rationalizing Energy Use by FY2030	In order to achieve the FY2030 benchmark, we are maintaining high-efficiency operations at existing thermal power plants while exploring means to expand biomass generation and develop practical applications for mixed combustion of ammonia. FY2023 results Power supply industry    Index A: 0.930 	

# J-POWER Group Environmental Targets and Results

Material issues ▶



## ○ Addressing Local Environment Issues

🏆 Not yet achieved   🏆🏆 Mostly achieved   🏆🏆🏆 Target achieved

	Target	Main Achievements in FY2023	Evaluation
Creation of a recycling-oriented society	Effective utilization rate of industrial waste: Approx. 97%	94.8% We worked to reduce industrial waste generated from the maintenance and operation of power plants and to effectively utilize coal ash, which accounts for the majority of waste.	🏆🏆
	Reduction of waste plastic emissions and recycling of resources	We have been monitoring the status of waste plastic emissions and recycling, etc., and have worked to control emissions and promote recycling, etc., through thorough separation of waste plastics and review of their treatment.	🏆🏆🏆
Biodiversity preservation	Consideration for biodiversity preservation in business activities	We made efforts to preserve the environment, giving due consideration to biodiversity. These efforts included conserving rare species of plants and animals and their habitats by establishing protected areas that encompass these habitats and sharing information about rare species existing in the area around the construction sites with the people involved in construction.	🏆🏆🏆
Protecting aquatic environments	Consideration for the preservation of river and marine environments in business activities	At operating power generation facilities that are involved with rivers, we implemented measures for the protection of the river environment, such as sedimentation treatment and reduction of turbid water resident, as appropriate to the conditions at each location. We have abided by environmental preservation agreements, among other things, and correctly controlled water discharged into marine regions while operating power plants close to marine areas.	🏆🏆🏆

## ○ Ensuring Transparency and Reliability

	Target	Main Achievements in FY2023	Evaluation
Improvement of environmental management level	Continuous improvement of EMS	We implemented the PDCA cycle consistently and worked to raise the level of environmental management.	🏆🏆🏆
Full compliance with environmental laws and agreements	Zero serious violations of environmental laws and agreements	No serious violations were found as a result of our efforts to ensure compliance with environmental laws and regulations. We will continue to ensure thorough compliance with environmental laws and regulations throughout the Group.	🏆🏆🏆
Environmental communication activities	Environmental communication activities in local communities and within the Company	In order to realize harmonious coexistence of the Company and local communities, we made efforts to build trust through environmental preservation activities such as tree planting and community cleanups. We also enhanced environmental communication within the company through environmental information exchange meetings and environmental education.	🏆🏆🏆



# Coexistence with Local Environment

Material issues ▶



- The J-POWER Group owns large-scale power generation and transmission facilities in a wide area and has been engaged in business for a long time under the banner of the material issue of engagement with local communities.
- We are committed to building a relationship of trust with the local community, while respecting considerations for the environment at every stage of our business and striving to preserve the local environment with the latest technology and knowledge.

## Addressing Local Environment Issues

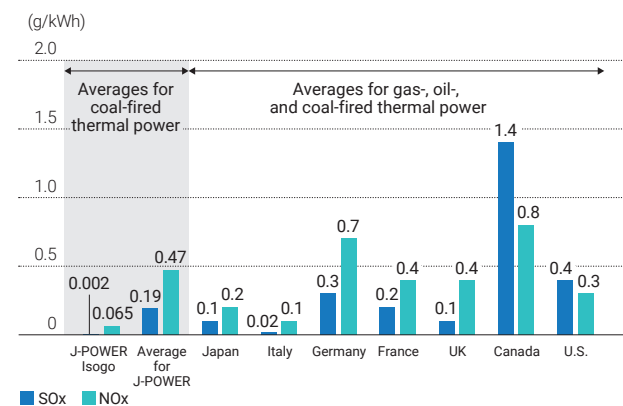
### Controlling Environmentally Harmful Substances

Thermal power plants release pollutants into the atmosphere such as soot, dust, nitrogen oxide (NOx), and sulfur oxide (SOx). High efficiency emissions reductions have been made possible through advances in combustion techniques and stable operation of flue gas treatment equipment.

In order to ensure that emissions of environmentally harmful substances comply with applicable laws, regulations, and environmental preservation agreements, we also monitor their operational conditions and smoke emissions 24 hours.

As shown in the figure below, the NOx and SOx emissions from the coal-fired power plants operated by the Company are comparable to average values for each developed country without fuel category, while our state-of-the-art units operate with a low environmental impact even by global standards.

### International Comparison of SOx and NOx Emission Intensity for Thermal Power Generation

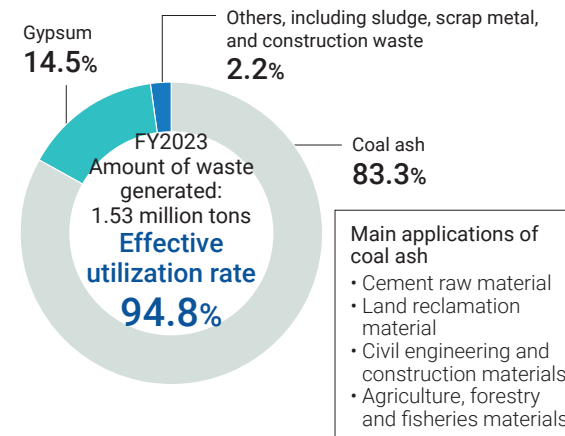


Notes: 1. Emissions: OECD Stat Extracts Power generated: IEA "Data and statistics"  
2. Average for J-POWER and J-POWER Isogo figures (coal-fired) are FY2023 results

### Promoting the Creation of a Recycling-Oriented Society

#### Maintaining and Improving the Effective Utilization Rate of Industrial Waste

The Group's emissions of industrial waste totaled 1.53 million tons in FY2023. Coal ash and gypsum discharged from thermal power plants accounted for 98%, of which more than 90% were successfully used as raw materials for cement, land reclamation material, and other supplies. The Company works to reduce the amount of industrial waste, and the overall effective utilization rate of industrial waste for FY2023 was 94.8%.



#### Dealing with Waste Plastics

We are also focusing on sorting and the 3Rs (Reduce, Reuse, Recycle) to increase recycling and decrease waste plastic emissions.

For details on the amount of plastic waste the Group produces and recycles, please refer to Supplementary Material: Environment.

[https://www.jpowers.co.jp/english/ir/library/pdf/2024/jpower\\_integrated2024e\\_appx\\_enviroment.pdf](https://www.jpowers.co.jp/english/ir/library/pdf/2024/jpower_integrated2024e_appx_enviroment.pdf)

### Environmental Impact Assessments

Environmental impact assessments in line with laws and regulations are conducted when planning and developing power facilities. We also take the views of the local residents into consideration and work hard to preserve the environment.

In accordance with signed agreements such as those for environmental preservation, we continue to monitor and verify the efficiency of environmental preservation measures once operation has begun. There are now 17 projects currently undergoing the environmental impact assessment process (as of August 2024).

### Protecting Aquatic Environments

#### Initiatives at Power Plants

The J-POWER Group has established protecting aquatic environments as one of its environmental targets, and is working toward relevant preservation methods for the rivers and marine areas of each region. At our hydroelectric power plants, we assess water quality and sediment deposition in dam lakes and downstream areas. Appropriate action is taken at our thermal power plants (such as discharge into the sea, reduced water consumption through reuse of treated wastewater) in accordance with relevant laws, regulations, and environmental preservation agreements. We also cooperate with flood control efforts, in accordance with agreements, by lowering dam water levels to secure free capacity within the dam prior to any expected major flooding event, such as a torrential downpour.

#### Groundwater Purification Project

Approximately 60 facilities across the country, including hospitals and universities have benefited from our disaster-resistant, onsite groundwater treatment services. In addition to this track record, we have collaborated with the start up WOTA to address a number of water-related environmental issues, and will make contributions to local communities through the provision of water supply services.



WOTA PLANT

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## Coexistence with Local Environment

## Biodiversity Preservation

Biodiversity preservation is another of the J-POWER Group's environmental targets. From the design stage of power plant construction to the operation of our business activities, our goal is to preserve the environment by taking into consideration the habitat, growth environment, and ecosystems of rare species of plants and animals.

## Preservation of plant and animal habitats

We are striving to safeguard and protect raptors like Japanese golden eagles, as well as flora and other fauna, in the Okutadami and Otori Dam area. In particular, we are focusing on raptor-conscious outdoor work plans and the maintenance of wetlands that were previously reclaimed and subsequently restored.

At the construction office for expansion of Tozai Interconnection Line Construction Office in Shizuoka, we compiled a pocketable book with information on rare plants and animals that inhabit and grow in the area around the construction site and use it to share information with those involved with the construction, aiming to help protect rare flora and fauna.



Pocketable Book with Information  
on Rare Plants and Animals

## Forest Conservation and Utilization of Forest Offcuts

By preserving Company-owned forests near hydroelectric power plants, turning forest offcuts into biomass fuel, and introducing its mixed combustion with coal at thermal power plants, J-POWER contributes to forest conservation and the reduction of CO<sub>2</sub> emissions.

## Ensuring Transparency and Reliability

## Improvement of Environmental Management Level

Every business site of the J-POWER Group has an environmental management system (EMS) that is compliant with the ISO 14001:2004 standard of the International Organization for Standardization and the JIS Q 14001 standard of the Japanese Industrial Standards, and we are constantly working to raise the bar regarding environmental management. To ensure that every employee is aware of environmental management and works with a feeling of responsibility as a party to a business that entails numerous environmental burdens, we also carry out environmental education by offering various training courses that take into account each employee's position and role.

## Full Compliance with Laws, Regulations, Agreements, and Other Rules

We aim to maintain and enhance the operation of our facilities while abiding by laws, regulations, and agreements in order to reduce the environmental impact of our commercial activities. In the event that environmental incidents arise, we have a system in place to stop the impact from spreading and to quickly convey information.

In addition, we strive to prevent past incidents from reoccurring.

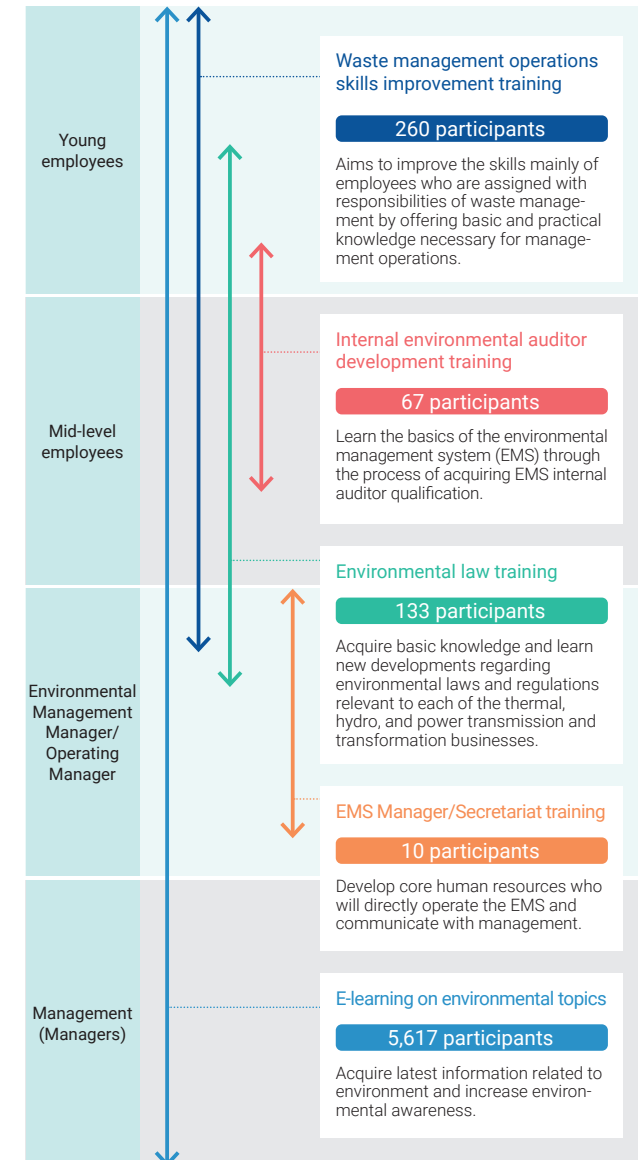
## Environmental Communication Activities

Through environmental conservation initiatives such as cleanups of local communities, we are aiming to improve environmental communication with our diverse stakeholders in addition to improving the disclosure of environmental information. In order to share environmental management information with Group companies and improve communication, we also organize events such as environmental information exchange meetings.

Material issues ▶

Response to  
climate changeEngagement with  
local communities

## Major Environmental Educations in FY2023



# Disclosure Based on TNFD Recommendations

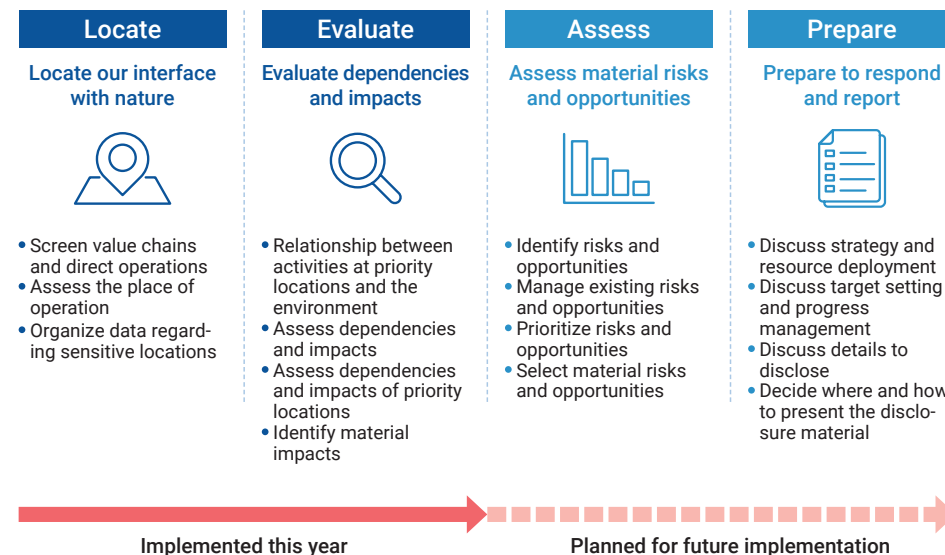
The J-POWER Group will disclose information based on Recommendations of the Task Force on Nature-related Financial Disclosures (“TNFD Recommendations”) released by the Taskforce on Nature-related Financial Disclosures\* on September 2023.

\*Taskforce on Nature-related Financial Disclosures (TNFD): An international organization that aims to establish a framework to help businesses and financial institutions properly evaluate and disclose the risks and opportunities related to natural capital and biodiversity.

## 1 Foreword

The TNFD Recommendations require companies to make clear how they impact nature, depend on natural capital, and the relevant risks and opportunities. We used the integrated approach for the assessment of nature-related issues advocated by the TNFD Recommendations (LEAP approach) in evaluating the business activities’ dependencies and impacts on natural capital. The LEAP approach consists of four phases: Locate, Evaluate, Assess, and Prepare. It is a framework that helps businesses locate the interface with nature, assess and manage dependencies and impacts as well as risks and opportunities, and organize the details to disclose by applying the set of procedures. This year’s assessment covers the Locate phase and the Evaluate phase. We intend to make a full evaluation and disclosure based on the LEAP approach in the coming years.

### Steps for adopting the LEAP approach



## 2 J-POWER Group and Its Relationship with Nature

Under our Corporate Philosophy of “We will meet people’s needs for energy without fail, and play our part in the sustainable development of Japan and the rest of the world,” we, the J-POWER Group, have strived to supply power efficiently and stably and operated the business globally for over 70 years. Furthermore, we are making efforts to enhance our corporate value by identifying the following five material issues from the medium- to long-term sustainability perspective and setting them as the core of the Group’s ESG management: supply of energy, response to climate change, respect for people, engagement with local communities, and enhancement of our business foundation.

We acknowledge that large-scale energy supply projects impact local communities and the environment. As part of our commitment to “engagement with local communities,” we are working toward the preservation of natural capital and local environment including biodiversity, and building trust with the local community.

## 3 J-POWER Group Environmental Basic Policy, Environmental Targets, and Environmental Action Guidelines

The Group has formulated the Environmental Basic Policy that sets forth the direction of the Group’s environmental initiatives based on its Basic Policy on Sustainability. The Group also established medium- to long-term challenges and goals as Environmental Targets and the details of challenges the Group needs to address and major initiatives as Environmental Action Guidelines, and is taking various actions in line with these targets and guidelines.

### J-POWER Group Environmental Basic Policy (Addressing Local Environment Issues)

Seek to operate in harmony with the local environment by adopting measures to reduce the environmental impact of our operations while working to save, recycle, and reuse resources in order to limit waste.

Our Environmental Targets include consideration for the preservation of biodiversity and protection of the aquatic environment. We are working to preserve habitats and the growth of rare fauna and flora and conducting proper wastewater management. Please see p.73 for details.

## 4 Governance Structure

The Group has identified “engagement with local communities (preservation of local environment)” as one of its material issues and holds meetings of the Sustainability Promotion Board, headed by the ESG General Manager (President), at least three times a year. The Sustainability Promotion Board plans and examines measures related to natural capital and discusses risk management based on the company policy. Important matters are proposed or reported to the Board of Directors or the Executive Committee.

Please see p.10 for sustainability promotion structures.



## Disclosure Based on TNFD Recommendations

### 5 Applying General Requirements

The TNFD Recommendations provide a set of general requirements for disclosures.

General requirements	Status of disclosure during FY2024
The application of materiality	Going forward, we will review risks and opportunities by taking into consideration the concept of double materiality.*1 For this year, we disclosed our analysis up to L and E phases.
The scope of disclosures	The business of the Group is centered on power generation and transmission and transformation businesses. Since the directly operated power generation business is large in scale and is considered to have significant impacts on natural capital, we decided to include the 96 sites (thermal, hydro, wind, and geothermal) in Japan and around the world that were in operation as of March 1, 2024, in the scope of assessment and disclosure.
The location of nature-related issues	Biodiversity importance, ecosystem integrity, and water availability were assessed for domestic and overseas power plants within the scope of disclosures to identify high-priority areas.
Integration with other sustainability-related disclosures	We acknowledge that climate change and natural capital mutually influence each other. The overall status of the ESG challenges is included in this report.
The time horizons considered	Upon examining risks and opportunities in our process going forward, we will consider the appropriate time horizons that capture the nature-related issues of the Group.
The engagement of indigenous peoples, local communities and affected stakeholders	In the electric power business, power plant operation runs on a premise that it has gained understanding of the local residents. Environmental assessment is performed at the time of the construction to study the impact on the environment and organisms. During operation, we comply with environmental conservation values agreed with the local governments where the plants are located, and make efforts to gain further understanding of the local residents about the power plants through events such as plant visits. <div><div></div><div><a href="#">P.77 Engagement with Local Society</a></div><div></div><div><a href="#">P.78 Initiatives to Respect Human Rights</a></div><div></div></div>

\*1 Double materiality is a concept that requires companies to assess not only how the environment and society affect them, but also how the companies affect the environment and society.

### 6 Trial Run of LEAP Approach

The business of the Group is centered on power generation and transmission and transformation businesses. The scope of assessment for this report is the directly operated thermal power business (coal/gas), hydroelectric power business, wind power business, and geothermal power business since these are large in scale and are considered to have significant impacts on natural capital. Please see p.118 for the details of the directly operated sites.

#### (1) Dependencies and impacts of the business on natural capital

To understand the level of dependency of the business on nature and the level of impact on nature, we used ENCORE,\*2 a tool for analyzing whether the business activity impacts the ecosystems and evaluating the magnitude of such impacts, and analyzed the dependencies and impacts by sector.

Below is a heatmap (created by modifying the results of the ENCORE assessment to align with the Company's business characteristics) that visualizes the dependencies and impacts on natural capital. Items assessed to have extremely large dependencies and impacts were selected as high priority matters.

\*2 Stands for Exploring Natural Capital Opportunities, Risks and Exposure. A tool developed by the Natural Capital Finance Alliance (NCFA) and the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) to help understand the magnitude of impacts and dependencies of business activities on nature.

#### Heatmap of dependencies and impacts

	Things that depend on natural capital								Things that impact natural capital										
	Groundwater	Surface water	Sound water cycle maintenance	Water quality	Bioremediation	Filtration, sequestration, storage, accumulation of contaminants	Climate control	Mitigating impacts of natural disasters	Reducing soil erosion	Terrestrial ecosystem	Freshwater ecosystem	Marine ecosystem	Water resources	GHG emissions	Non-GHG air pollutants	Water pollution	Soil pollution	Solid waste	Noise, vibration
Very large dependencies and impacts																			
Dependencies and impacts exist																			
Relatively small dependencies and impacts																			
Thermal power										•									
Hydroelectric power										•		•			•			•	•
Wind power		•	•	•	•	•					•	•	•	•	•			•	
Geothermal power											•	•			•			•	

● For the details of each index subject to dependencies and impacts assessment using ENCORE, please see ENCORE's website (<https://www.encorenature.org/en/data-and-methodology/impact-drivers>).  
● "-/-" means that the sector has few dependencies and impacts on the index.

#### Results of assessment of dependencies and impacts on natural capital

Thermal Power	There are large dependencies on surface water and large impacts on water resources, given that water is an essential resource in power plant operations. There are large impacts on GHG emissions and non-GHG air pollutants, given that burning fuel causes GHG emissions and non-GHG air pollutants emissions.
Hydroelectric power	There are large dependencies on surface water and sound water cycle maintenance and large impacts on water resources, given that water is an essential resource in power plant operations. There are large dependencies on climate control, given that a stable climate leads to a stable water cycle. There are large impacts on the freshwater ecosystem, given that hydro-electric power generation changes the river's earth and sand and the flow of water.
Wind power	There are large dependencies on climate control, given that a stable climate leads to a stable supply of wind.
Geothermal power	There are large dependencies on groundwater and large impacts on water resources, given that water is an essential resource in power plant operations.



# Disclosure Based on TNFD Recommendations

## (2) Understanding the areas that require priority efforts

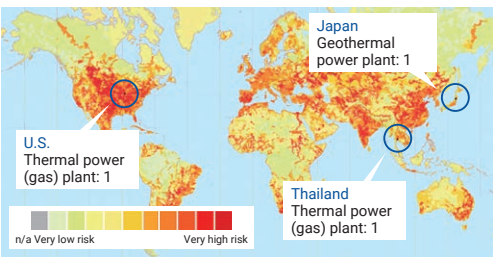
As a result of analysis using ENCORE, we assessed that matters related to water and ecosystems are of high priority. For each power generation site, we used a publicly available tool to assess ecosystem integrity, biodiversity importance, and water stress, which are matters related to water and the ecosystem, and identified sites that are in sensitive locations. As for climate-related matters, we decided not to consider them in the TNFD disclosures since they should be reported in TCFD disclosures.

### Assessment of ecosystem integrity

Ecosystem integrity is the ability of an ecosystem to support and maintain ecological processes and a diverse community of organisms. Areas of low ecosystem integrity are areas where the ability to continuously provide ecosystem services is low.

Assessment of ecosystem integrity using BRF\*1 showed that two gas-fired thermal power plants, one in Thailand and one in the United States, and one geothermal power plant in Japan are located in areas with very low ecosystem conditions.

### Analysis of ecosystem integrity (using BRF)



### Assessment of biodiversity importance

Biodiversity importance is the value or the magnitude of the impact of different types of living creatures and their genetic diversity and ecological diversity. An area of high biodiversity importance means that the area encompasses ecosystems that require priority for conservation efforts. Using IBAT,\*2 we assessed the existence of areas of high biodiversity importance (areas specified in, or identified as Key Biodiversity Area, Natura 2000, World Heritage, Ramsar site, UNESCO's Man and Biosphere Programme (MAB), and IUCN protected area management categories Ia to IV) in the vicinity of sites and the areas downstream of hydroelectric power dams (since dams are designed to hold back water, they can change the water flow or the earth and sand of the river and potentially affect downstream species). As a result, we assessed that areas of biodiversity importance existed in 62 sites.

### Analysis of biodiversity importance (using IBAT)

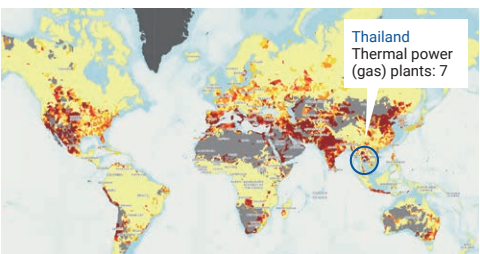


- Assessment was made if protected areas existed within a 5km radius of the assessment point or in the areas downstream of dams.
- For the details of protected areas, please see IBAT's website (<https://www.ibat-alliance.org/>).

### Assessment of water stress

Water stress is a water balance between the demand and supply of local water resources and water intake. It is an indicator for assessing water availability. A high water stress area is one where the water

### Analysis of water stress (using Aqueduct)



supply is tight and there is severe competition for water. We identified sites where water stress was assessed as high by Aqueduct\*3 or WRF.\*4 We assessed that seven gas-fired thermal power plants in Thailand were located in high water stress areas. No other sites were assessed as being located in high water stress areas.

### Assessment results

We designated areas that were identified as either areas of extremely low ecosystem integrity, areas of high biodiversity importance, or areas of high water stress as sensitive locations. As a result, we confirmed that 64 sites (13 thermal power plants, 50 hydroelectric power plants, and one geothermal power plant) were situated in sensitive locations.

## 7 Initiatives Regarding Biodiversity and Water Resources

As our efforts to preserve the local environment, the Group is taking initiatives to preserve biodiversity in a way that suits the environment of each site, such as managing wetlands where raptors gather and establishing protected sections within the business premises where important plant species grow. Furthermore, at power plants, we are working on preserving the aquatic environment by managing water discharges in accordance with relevant laws, regulations, and agreements with local governments on environmental preservation. We are also performing assessments on water risks and reviewing our operations in areas where water stress is high, to reduce water intake/consumption and minimize risks by taking into consideration the environment of each site. Such efforts include reusing treated wastewater and creating reservoirs.

For details, please see p.71 and Supplementary Materials: Environment.

## 8 Future Initiatives

For this report, we identified the Group's dependencies and impacts on natural capital. Going forward, we will use the data on identified dependencies and impacts on nature to identify nature related risks and opportunities of the Group's businesses, and address them by prioritizing those risks and opportunities.

\*1 BRF (Biodiversity Risk Filter): A tool developed by the World Wide Fund for Nature (WWF) to help companies and financial institutions assess risks within their businesses and supply chains that could impact biodiversity.  
\*2 Stands for Integrated Biodiversity Assessment Tool. A tool jointly developed by BirdLife International, UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), International Union for Conservation of Nature (IUCN), and Conservation International that provides integrated access to protected areas, key biodiversity areas, and other areas designated for conservation around the target point, and maps of endangered species.  
\*3 Aqueduct: A tool developed by the Water Resources Institute (WRI) to assess water risks. It can assess water risks of the area where the subject site is located, from the aspects of water quantity, water quality, and regulatory or reputational risk.  
\*4 WRF (Water Risk Filter): A tool developed by the World Wide Fund for Nature (WWF) and Deutsche Investitions- und Entwicklungsgesellschaft (DEG) to assess water risks. It can assess water risks of the area where the subject site is located as well as water risks arising from the operations of each site.

# Engagement with Local Communities

## Contributions to Local Communities

The J-POWER Group has adopted engagement with local communities as one of its material issues, and aims to build relationships of trust with local communities as well as contribute to local revitalization efforts through proactive contribution activities in Japan and overseas.

Based on the J-POWER Thoughts on Social Contribution Initiatives, as a good corporate citizen, the J-POWER Group engages with local communities, supports culture and the arts, promotes participation in volunteer activities, and actively contributes to international society. The results of each region's initiatives are compiled by the Sustainability Promotion Board and reported to the Board of Directors.

See our website for the J-POWER's Thoughts on Social Contribution Initiatives

### J-POWER's Thoughts on Social Contribution Initiatives

<https://www.jpower.co.jp/english/sustainability/contribution/policy.html>

### Social Contribution Activities

A total of 6,719 Group employees took part in 815 activities during FY2023.

The activities include work-study programs and onsite classes (such as environmental education) in collaboration with educational institutions, as well as local environmental conservation and beautification activities such as tree planting, and environmental cleanups. The Group also engages in a wide range of activities, including conducting facilities tours, taking part in dialogues with communities and local events, and conducting patrols for traffic safety.

### ○ FY2023 Results

- Number of activities: ..... **815** (453 in FY2022)
- J-POWER Group employee participants: ..... **6,719** in total (3,263 in FY2022)

### Activities in Hydroelectric/Thermal Power Generation Areas

With 61 hydroelectric power plants located throughout Japan, we are putting various efforts into action at each of the nearby river basins.

In the city of Uonuma in Niigata Prefecture, Okutadami Kanko Co., Ltd., our Group company offers sightseeing boat tours on Lake Okutadami and operates the Okutadami Maruyama Ski Resort as part of a joint project with the city. These initiatives contribute to regional revitalization and sports promotion through tourism.

At the Tadami and Tagokura Power Plants in Fukushima Prefecture, infrastructure tours are conducted in partnership with JR East View Tourism & Sales Co., a subsidiary of JR East Japan Railway Company (JR East). Through this tour, we hope to find new attractions and add value to the area by combining a railroad project involving the Tadami Line with visits to our facilities.

In addition, community engagement events and facility tours were conducted at thermal power plants and business sites, marking the first activities since J-POWER Generation Service Co., Ltd. embarked on its comprehensive management system. These events offer a valuable opportunity for local residents to familiarize themselves with the Group's power plants and facilities, fostering greater engagement.



Sightseeing boat operated by Okutadami Kanko Co., Ltd.



Appreciation Day at Matsushima Thermal Power Plant

### Overseas Social Contribution Activities

In order to achieve self-reliance and ongoing community development, the Batang Power Plant, which started commercial operation in 2022, is involved in educational and health support activities, as well as infrastructure improvements, through its operating company, Bhimasena Power Indonesia (BPI).

J-POWER's U.S. subsidiary, J-POWER USA Development, and its power generation companies collaborate with local non-profits to revitalize the community through donations and volunteer work. For instance, we support local citizens with food support programs, educational support for students, and sponsorship of cultural institutions based on the needs of the community.



Indonesia: Government awards for CSR activities



U.S.: Food support activities



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Supplementary Material:&lt; Governance&gt;

# Initiatives to Respect Human Rights

## J-POWER Group Basic Policy on Human Rights

Keenly aware of its responsibility to respect the human rights of those whom its business activities may affect, the J-POWER Group endeavored to clarify its stance on the matter and, in June 2022, fulfilled that responsibility by establishing the J-POWER Group Basic Policy on Human Rights. This policy is based on such international standards as the International Bill of Human Rights, ILO International Labour Standards, OECD Guidelines for Multinational Enterprises, UN Global Compact Principles on Human Rights, and UN Guiding Principles on Business and Human Rights. Based on this policy, we promote efforts to respect human rights for all stakeholders, including those within our supply chain.

See our website for the J-POWER Group Basic Policy on Human Rights.

[https://www.jpower.co.jp/english/sustainability/contribution/human\\_rights.html](https://www.jpower.co.jp/english/sustainability/contribution/human_rights.html)

### Scope of Initiatives

The J-POWER Basic Policy on Human Rights applies to all employees and executives of our Group. We also encourage our business partners and suppliers to support this policy.

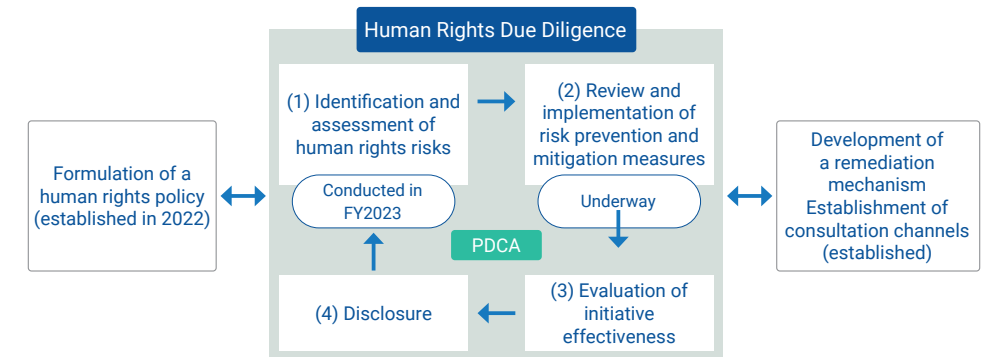
### Promotion Structure

In FY2022, we established a Human Rights Subcommittee under the Sustainability Promotion Board, which is headed by ESG Oversight (the President). The Subcommittee engages in discussions on issues related to human rights across various relevant departments. These departments in corporate and business divisions participate in discussions on policies on human rights and specific initiatives. Discussions and initiatives undertaken by the Subcommittee are reported to the Board of Directors through the Sustainability Promotion Board. The Board of Directors then provides instructions on these initiatives.

### System for Respecting Human Right



### Framework for Initiatives to Respect Human Rights



### Overview of Initiatives to Prevent Human Rights Violations

- With a mechanism for human rights due diligence based on the J-POWER Group Basic Policy on Human Rights in place, we are committed to understanding the negative impacts and risks to human rights. If it becomes clear that our business activities have had a negative impact, we will take appropriate measures to remedy the situation.
- In addition to banning child and forced labor, we thoroughly prohibit discrimination on any basis: discrimination based on race, skin color, gender, language, religion, nationality, age, sexual orientation, gender identity, gender expression, disability, political or other opinions, national or social origins, assets, social standing of family, or any other status or similar grounds.
- J-POWER also upholds the basic rights of its employees, including their right to freedom of association, respect for their right to engage in collective bargaining, and compliance with minimum wages. J-POWER has formed collective agreements with its labor unions. As part of these agreements, the Company consults with labor unions on significant changes to working conditions, including raises and bonuses. The two parties hold annual management policy discussions so that employee opinions are reflected in the resulting policy.
- In addition to utilizing independent outside expertise, we will periodically disclose information on the status of our initiatives and provide training and education to our directors and employees.

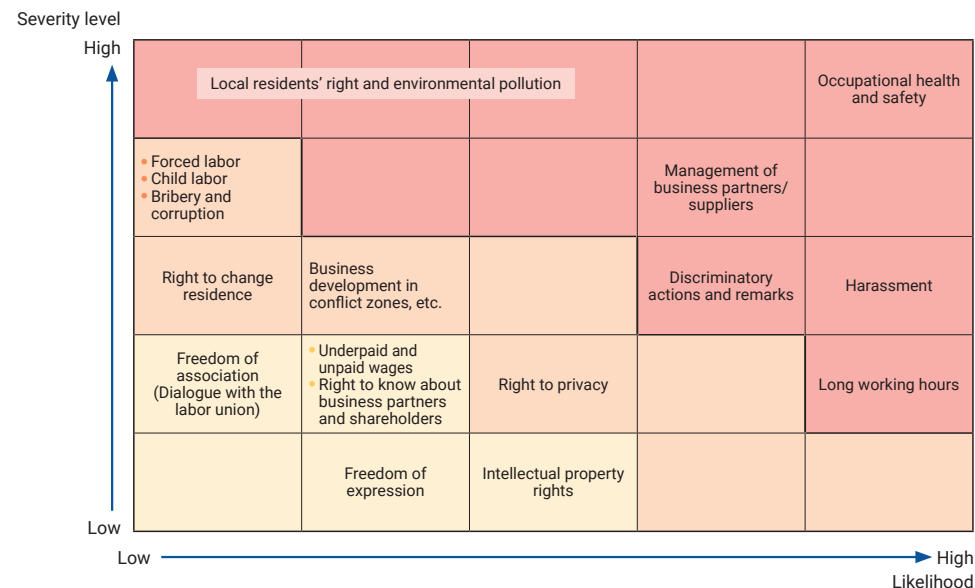


# Initiatives to Respect Human Rights

## Human Rights Due Diligence

The J-POWER Group implements human rights due diligence through the Human Rights Subcommittee established under the Sustainability Promotion Board. To understand the potential negative impacts and risks to human rights, we organized human rights issues with the assistance of outside experts, in accordance with the UN Guiding Principles on Business and Human Rights and other international guidelines. In FY2023, we administered questionnaires and conducted interviews to identify internal human rights risks. In light of these findings, we performed a human rights risk assessment (risk mapping) to pinpoint high-risk areas. As part of our ongoing efforts, we will review and implement prevention and mitigation measures, focusing on these priority areas.

### Human Rights Risk Map



### Approach to formulating the risk map

- ▶ The vertical axis represents the severity level, whereas the horizontal axis indicates the likelihood of occurrence. The prioritization criteria are based on the "Reference Material on Practical Approaches for Business Enterprises to Respect Human Rights in Responsible Supply Chains" issued by the Ministry of Economy, Trade and Industry (METI).
- ▶ Severity levels are categorized as high, medium, and low for scale, scope, and irremediability, respectively, based on the above criteria.
- ▶ Likelihood is assessed using these criteria, supplemented by quantifying the results from internal questionnaire responses.

## Remediation Mechanism

The Group has established various internal and external consultation channels to address issues related to harassment and compliance. Rules have been set in place for these services to ensure the strict protection of employees' personal information and confidentiality, thereby preventing any disadvantages to them. In addition to employees, the consultation channels are open to external stakeholders as well. Upon receiving a whistle-blowing report, we verify the facts, understand the issues, and proactively work toward a solution. Should any negative impact arise, we will take appropriate measures to address and remedy the situation.

[P.98 Compliance](#)

## Training and Education on Human Rights and Compliance Initiatives

We conduct various training programs to help directors and employees gain knowledge about compliance, various types of harassment, diversity, and other topics related to respect for human rights. Among these is a program designed to deepen their understanding of the J-POWER Group Basic Policy on Human Rights.

Respect for human rights is also stipulated in the Group's Compliance Action Guidelines, which are distributed to all employees. In addition, a compliance survey is administered to all Group employees to regularly assess employee awareness, compliance risks, and changes in the environment. The survey is subsequently used to develop measures.

### Results of Major Initiatives (FY2023)

Level-specific training	• Lectures on human rights, compliance, and prevention of various forms of harassment given during training for new hires and management training (a total of 353 employees participated)
Human rights and compliance training	• Lectures on human rights, compliance, and prevention of various forms of harassment held for employees working in target institutions (a total of 167 employees participated)
e-learning	• Implemented an e-learning program on harassment prevention for Group employees (a total of 5,397 employees completed the program) • Implemented an e-learning program on psychological wellbeing for Group employees (a total of 4,961 employees completed the program) • Implemented an e-learning program on business and human rights for Group employees (a total of 4,958 employees completed the program) • Conducted an e-learning program to raise awareness of compliance (a total of 4,091 employees completed the course)
Online lectures	• Conducted psychological wellbeing lectures for management-level employees (82 participants) • Conducted training on prevention of compliance violations for Group employees (held once with 58 participants) • Conducted diversity lectures jointly with Group companies (200 participants)





# Supply Chain Management

## Basic Policies for Product Procurement and Declaration of Partnership Building

J-POWER is committed to contributing to a sustainable society throughout its supply chain, including its business partners and suppliers. To this end, the Company has established the Basic Policies for Product Procurement and adheres to six guidelines: openness, fairness, economic rationality, long and reliable partnership, law-abiding practices, and respect for human rights and assurance of occupational health and safety. These guidelines are also available on the Company's website. In addition, in March 2022, we announced the Declaration of Partnership Building, aiming to foster cooperation and shared prosperity with our supply chain partners and value-creating businesses.

### Basic Policies for Product Procurement

 [https://www.jpowers.co.jp/english/company\\_info/material\\_info/s01\\_.html](https://www.jpowers.co.jp/english/company_info/material_info/s01_.html)

### Declaration of Partnership Building

 [https://www.jpowers.co.jp/company\\_info/procurement/partnership.html](https://www.jpowers.co.jp/company_info/procurement/partnership.html) (available only in Japanese)

### Basic Policies for Product Procurement

- 1 | Openness
- J-POWER is committed to procuring high-quality, fair-priced products and is open to collaborating with businesses from overseas as well as in Japan. J-Power always welcomes the participation of motivated new business partners and suppliers.
- 2 | Fairness
- J-POWER always endeavors to be fair. Careful and fair selection of suppliers is made based on quality, price, reliability, delivery punctuality and compatibility of products, and technical capabilities, financial position, after-sale service, and environmental protection of the companies.
- 3 | Economic rationality
- J-POWER procures products following the economic rationality underlying J-POWER's principle: "better products, better price."
- 4 | Long and reliable partnership
- J-POWER considers after-sales service an essential component of the transaction once a sales contract is concluded and is willing to develop long and reliable partnerships with suppliers.
- 5 | Law-abiding practices
- J-POWER believes that all business dealings conducted by its suppliers and by itself should comply not only with relevant laws and regulations but also with their spirit.
- 6 | Respect for human rights and assurance of occupational health and safety
- J-POWER is committed to taking responsibility for respecting the human rights of all stakeholders, including those within the supply chain, in accordance with the J-POWER Group Basic Policy on Human Rights.
- J-POWER ensures that it and its suppliers fulfill their responsibilities and obligations, with a priority on the safety of the public and relevant parties. Collaboratively, J-POWER works to enhance health and safety awareness, thereby preventing industrial accidents and fostering a comfortable working environment.

The Group communicates the Basic Policies for Product Procurement internally and provides training programs for procurement personnel to ensure proper procurement operations.

Procurement information and procedures are available on the Group's website for interested parties, promoting fair and transparent transactions. Additionally, the Group has established the consultation channels to assist with procurement-related inquiries.

Product procurement  [https://www.jpowers.co.jp/english/company\\_info/material\\_info/](https://www.jpowers.co.jp/english/company_info/material_info/)

## Respect for Human Rights throughout the Supply Chain

In line with the J-POWER Group Basic Policy on Human Rights, we are advancing initiatives to respect human rights across all stakeholders. In June 2024, we enhanced the Basic Policies for Product Procurement to include a new focus on human rights. We are actively encouraging our business partners and suppliers to align with and support these revised policies.

 [P.78 Respect for Human Rights](#)

### Topics

#### Biomass Fuel Procurement from Domestic and Overseas Sources

The Group is working to reduce CO<sub>2</sub> emissions through the mixed combustion of biomass fuels at coal-fired power plants. From the perspective of sustainably and stably procuring biomass fuel, the Group is also engaged in the business of producing sustainable biomass fuels such as woody fuels employing forest offcuts, which are underutilized resources in Japan. For overseas procurement, we also use third-party certification to ensure sustainability upon receiving certification documents for each transaction. In addition, we visit manufacturing plants and forests where raw materials are sourced, both in Japan and overseas, to exchange opinions with relevant stakeholders.

#### ■ Wood biomass fuel production business in Japan

Project Name	Miyazaki Wood Pellet
Location	Kobayashi City, Miyazaki Prefecture
Project Overview	A business with an integrated system, from setting up companies to manufacture wood pellets from underutilized forest offcuts, and manufacturing wood pellets, to using pellets for mixed combustion in J-POWER's coal-fired thermal power plants (Pellet production capacity: 25,000 tons/year)
Equity Share	98.3%
Start of Operation	2011



Wood pellets



Our employees' visit to a wood pellet plant (Vietnam)

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# Human Resources Strategy for Enhancing the Group's Competitiveness

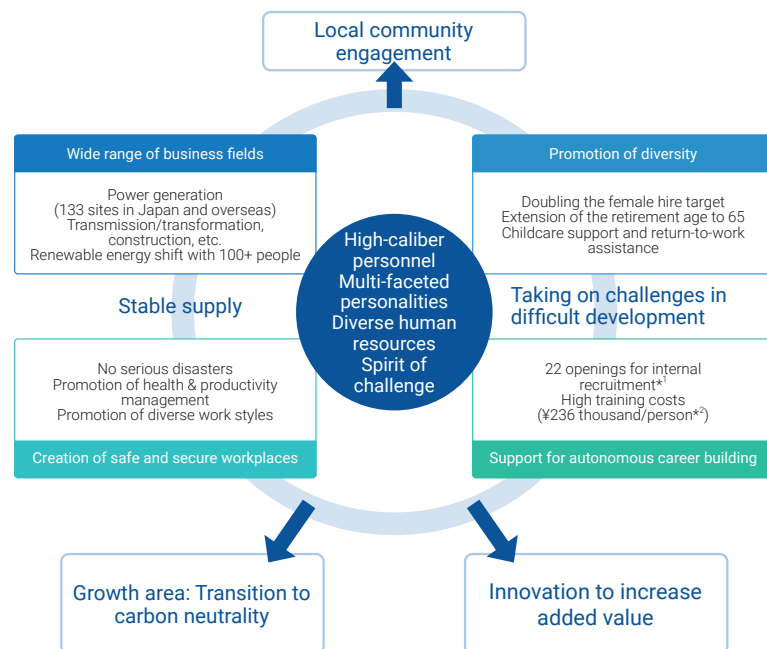
## The J-POWER Group's Human Resources Strategy

### Basic Policy

The J-POWER Group aims to achieve a sustainable society by evolving its business portfolio and models to balance a stable energy supply with responses to climate change. The Group recognizes each employee as a source of value in meeting the diverse needs of society and is committed to developing a wide range of human resources with multi-faceted personalities and a spirit of challenge.

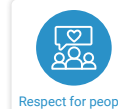
### Direction of Human Resources Measures

The Group respects individuals and promote diversity to create an environment where diverse human resources can play an active role, while also advancing the development of safe and secure workplaces. By leveraging our extensive range of business fields, we will provide employees with diverse work experiences while simultaneously enhancing human resources systems to support their independent efforts in taking on challenges.



\*1 Cumulative results through FY2023 \*2 FY2023 results

Material issues ▶



Respect for people

### Value Creation

Through diverse human resources measures, we will advance the development of carbon-neutral assets and the transition of thermal power generation in Japan. Concurrently, we will expand into new business areas, enhance our high-value-added services, and drive innovation to stimulate growth, while securing sustainable revenue streams. We will also actively engage with local communities through energy development that leverages local resources, including renewable energy.

With the dynamic participation of the Group's human resources, we will contribute to addressing various social issues facing Japan and the world, thereby delivering value at local and global levels.

### Interview

#### Interview with the Department Director of the Personnel & Employee Relations Department

**Q** What is your perspective on how the alignment between management strategy and human resources strategy contributes to the Group's achievement of sustainable growth?

**A** Human resources are the backbone of our business activities, and I believe that aligning these strategies is essential for effectively addressing issues in the management strategy. We have prioritized a human resources strategy to enhance corporate value in the Medium-Term Management Plan. By continuously developing diverse human resources who will lead in wisdom and technology, we will enhance the Group's competitiveness, contributing to the achievement of sustainable growth.

**Q** What are the current characteristics of the Group's human resources, and what challenges do they present?

**A** Despite its small workforce, the Group's human resources are notable for their diverse expertise and engagement across various business domains. Going forward, I believe it is necessary to further strengthen our efforts in securing and training human resources to support the transformation to the new business portfolio outlined in the Medium-Term Management Plan.

**Q** Please describe the types of human resources and organizational identity you are seeking for 2030.

**A** In my view, it will become increasingly essential to develop human resources and organizations that enhance added value for society and drive innovation to sustain growth while adapting to changes in the business environment.

**Q** Are there any specific measures you would like to focus on?

**A** We will expedite the enhancement of human resources systems that support their independent efforts to take on challenges. This includes supporting autonomous career building through the Career Development Program (CDP), developing human resources through job rotation, enhancing working environments to accommodate diverse work styles, and implementing other initiatives.



**Shiho Mase**

Department Director  
Personnel & Employee  
Relations Department

# Workplace Development for Ensuring Success of Diverse Human Resources

## Basic Policy

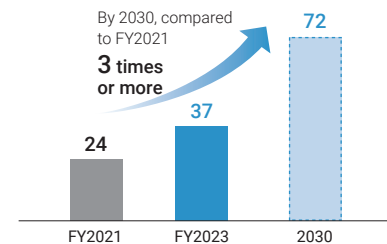
The active participation of human resources with diverse personalities is crucial for the J-POWER Group's sustainable growth. We are working to create a system and working environment in which a wide range of human resources fully demonstrate their abilities and play an active role regardless of factors such as gender, nationality, race, work history, experience, age, or disability to generate greater added value.

## Diversity & Inclusion

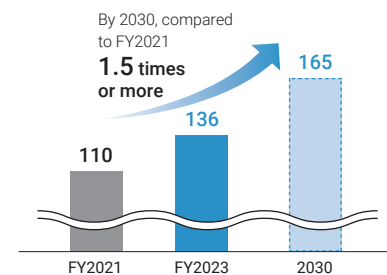
### KPIs

J-POWER has positioned senior employees as core human resources among employees in a career-track position. Based on the principles of the Corporate Governance Code, we are establishing targets for the promotion of women, foreign nationals and mid-career hires to senior roles by 2030. We aim to ensure that at least 20% of new graduate hires are women.

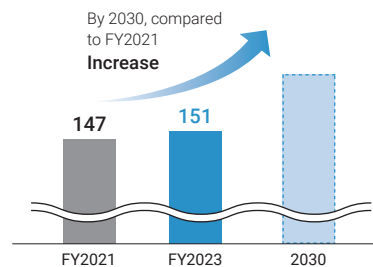
#### Appointment of women to senior roles



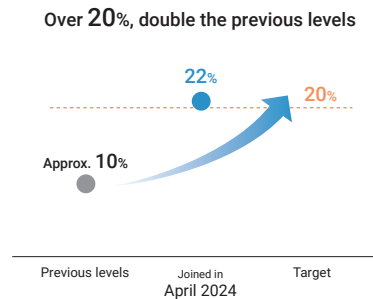
#### Appointment of mid-career hires to senior roles



#### Appointment of foreign nationals to senior roles



#### Percentage of women among new graduate hires



### Increase in the Number of Women Hired

J-POWER and the J-POWER Group companies have a high percentage of employees in the engineering field. Given that more than 80% of the engineering students eligible for our recruitment are male, the proportion of male employees within the Group remains high. We aim to increase the number of female employees. To this end, we actively showcase the activities of our female technical employees through career support events aimed at female science students.

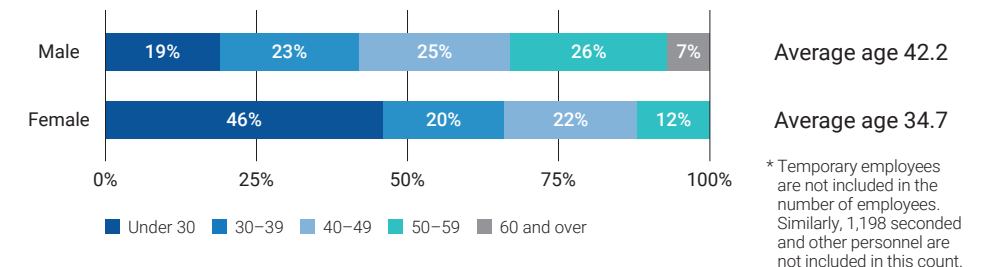
### Career-Building Support for Female Employees

The breakdown of female employees by age group indicates that those under 30 years old constitute the largest proportion, exceeding 40%. We are aiming to facilitate information exchange and strengthen cooperation among female employees, as well as offer career-building support, including the formulation of CDPs\* for women. These efforts allow them to continue to work with confidence even after major life changes like childbirth and the need for childcare.

\* Career Development Program

[P.85 Diverse CDPs](#)

### Breakdown of J-POWER Employees by Age Group (As of March 31, 2024)



\* Temporary employees are not included in the number of employees. Similarly, 1,198 seconded and other personnel are not included in this count.

### Topics

#### Gender Wage Difference

While gender wage differences arise from variations in personnel composition, the compensation system itself does not differentiate based on gender.

- Difference in wages between male and female workers calculated based on the Act on the Promotion of Women's Active Engagement in Professional Life  
All employees (59.0%), regular employees (58.8%), non-regular employees (70.0%)
- Comparison of base salaries of employees in a career-track position. Percentage ratio of female to male wages  
Under 30 years old (97.8%), 30-39 years old (100.8%), 40 years old and over (102.3%)

# Workplace Development for Ensuring Success of Diverse Human Resources

## Foreign National, Mid-career, and Alumni (Former Employees) Hires

As the Overseas Business is one of the core businesses for the Company, our policy is to increase the number of foreign national senior employees on a Group-wide basis. This will be achieved by promoting professionals with expertise in their respective countries and regions through hiring at local subsidiaries.

Due to the increase in the number of new projects in recent years, including the development of renewable energy both in Japan and abroad, we are strengthening our efforts to hire personnel who can have an immediate impact from a variety of fields and industries, including project management, finance, legal, international business, DX, fuel and material procurement.

Additionally, we have a track record of former employees who, after leaving the Company and gaining expertise in various fields, have rejoined us as alumni hires to apply their newfound experience and knowledge.

## Enhancing Advanced Age Employment and Improving Working Conditions for Younger Employees

Since 2021, J-POWER is gradually raising its mandatory retirement age to 65. Through our motivated older workers, we leverage their expertise and experience. As of March 31, 2024, the J-POWER Group has 458 participants in the continuous employment system and the personnel registration system.\*

For younger workers, we are continuously working to improve working conditions, and through support for autonomous career building, we aim to create a system that allows them to work with a sense of fulfillment.

\* Accessible until the conclusion of the fiscal year in which employees turn 70

## Employment of People with Disabilities

As of June 1, 2024, J-POWER's employment rate of people with disabilities is 2.4%. We are enhancing working environments and promoting understanding among other employees through such initiatives as establishing the consultation channels where employees with disabilities can discuss employment assistance and working environments, as well as making office buildings barrier-free. We will continue making efforts to improve our employment rate of persons with disabilities.

## Early Appointments for Developing Next-Generation Middle Management

Middle management typically falls into a more experienced age bracket, largely due to the Company reducing its hiring of new graduates before and after its privatization in 2004. We are currently focused on appointing younger employees to the middle management tier earlier, while also implementing human resource development measures, including training for potential management-level employees.



## Topics

### Initiatives by the Dedicated Diversity Organization

To establish integrated and consistent policies, systems, and work environments, the Diversity Promotion Task unifies all functions, including diversity promotion, training and development, personnel and labor system studies. The Task Force conducts study sessions on childcare and maternity leave, holds lectures on diversity and inclusion (D&I), regularly shares updates through the Group newsletter, organizes the Dialogue Session with Female Executive Officers to support the career development of female employees, and implements other initiatives.



Dialogue Session with Female Executive Officers

### Training Conducted for Trainees from the Batang Power Plant

At the Batang Power Plant in Indonesia, operated by Bhimasena Power Indonesia (BPI), locally hired employees are responsible for the operation and maintenance of the facilities. To enhance their operational and maintenance skills, we share the Group's expertise with them by receiving trainees at power plants in Japan and dispatching technical employees from Japan.

In May 2024, the Matsuura Thermal Power Plant received two trainees. The trainees attended lectures by power plant personnel on PdM\* analysis for the turbines and rotating components they are responsible for at the Batang Power Plant. They also toured the facilities and observed demonstrations of regular inspections. The trainees deepened their knowledge by asking extensive questions about maintenance methods within the Group, particularly focusing on vibration measurement and risk assessment.

Through these efforts, we aim to enhance the skills of locally hired personnel by sharing key insights gained from past troubleshooting experiences across borders. This will help ensure the stable and safe operation of power plants and improve the profitability of overseas power generation assets.



Demonstrating vibration measurement



Regular inspection observation

\* PdM: Predictive Maintenance



# Workplace Development for Ensuring Success of Diverse Human Resources

Material issues ▶



Respect for people

## The Realization of Work-Life Balance

### Childcare Leave

The J-POWER Group has set a target of 100% childcare leave uptake and is striving to create a workplace environment that facilitates its use. To enable employees to take childcare leave in accordance with their life plans, the Company offers unique support programs that exceed the statutory requirement. The Maternity and Childcare Leave Handbook, which provides a clear and concise overview of public and company programs, has been distributed to all employees, creating a supporting working environment for taking childcare leave.

The Company received “Kurumin” certification from the Minister of Health, Labour and Welfare, recognizing it is a company that supports childcare. Moreover, we also received the special “Platinum Kurumin” certification mark, which is awarded only to companies with initiatives that meet an even higher standard.

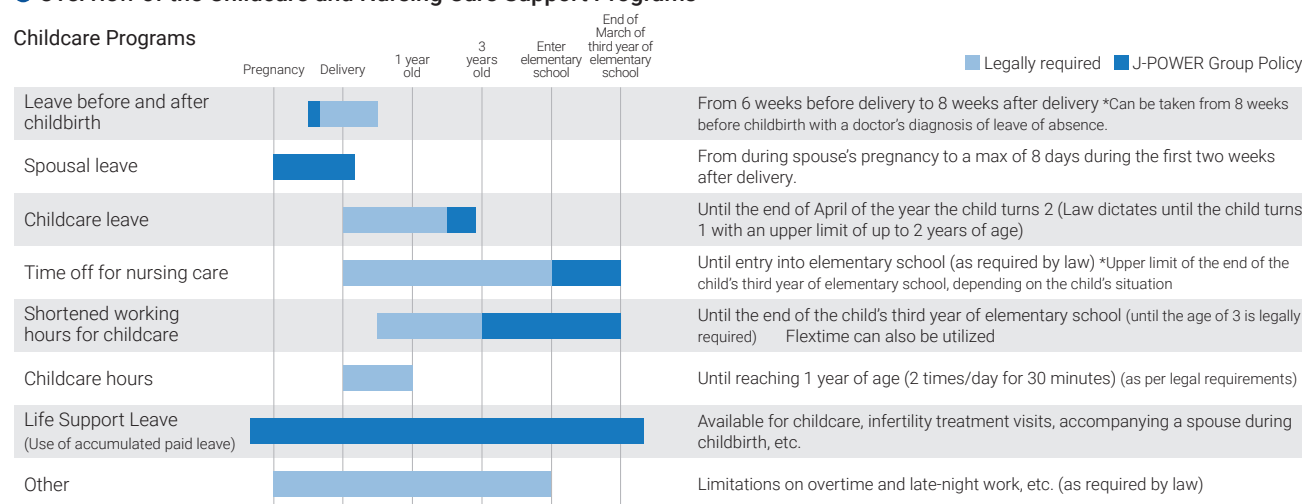
- Childcare leave uptake (%)
  - Male: 100% (Days of leave taken: 15.8)
  - Female: 100%
  - Total 100%



Maternity and Childcare Leave Handbook distributed to all Group employees

### Overview of the Childcare and Nursing Care Support Programs

#### Childcare Programs



### Flexible Work Styles and DX Promotion

With the use of online tools, a “swing time” system\*<sup>1</sup> with a maximum of two hours, and a remote work system primarily at our headquarters, we have implemented steps to increase work productivity and suit various work types. Alongside these initiatives, we aim to create the 3Ps “Yoryoku”\*<sup>2</sup> by reducing operation and maintenance tasks and enabling location-independent operations through DX.

\*<sup>1</sup> Self-determined flexible working hours for starting earlier or later

\*<sup>2</sup> Powers of potentiality, productivity and predictivity

[P.39 Promotion of DX](#)

### Consultation Channels

Consultation channels regarding working hours, work environment, support for employees with disabilities, harassment, work environment influenced by gender diversity, and maternity and childcare leave are available. The privacy of employees using the consultation channels is assured. By upholding internal policies and procedures, as well as by offering level-specific training and displaying awareness-raising posters, we are working toward harassment prevention. A system is in place to ensure effective responses, and the managers of each department also receive training on how to handle difficulties should they arise. We offer customized system explanations and interviews as appropriate in response to questions from employees about maternity and childcare leave.

[P.98 Compliance Promotion](#) [P.78 Respect for Human Rights](#)

### Family Member Care Programs

Family member care leave

**365 days/person**

93 days/person is legally required

Shortened working hours for family member care

**Total of 3 years/person**  
**No limit on how time can be divided**

Legal requirement allows time to be split at least twice

Time off for family member care

**5 days/year for one family member;**  
**10 days/year for two or more family members**

As legally required

# Human Resource Development and Management

Material issues ▶



Respect for people

## Basic Policy

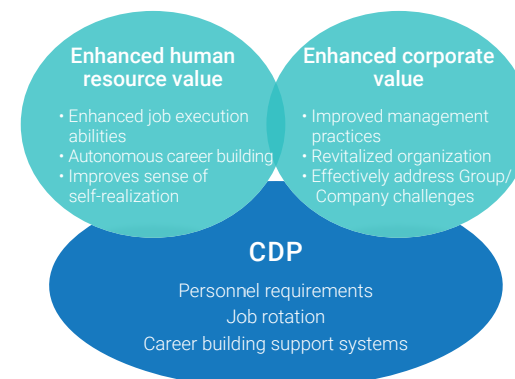
The J-POWER Group aims to develop professional human resources with knowledge in multiple specialized areas and a broad perspective who can take on the challenges of management issues while managing projects and human resources. We have formulated a diverse Career Development Program (CDP) to enhance the human resource value of our employees and the corporate value of the Company through job rotation that considers personnel requirements and a framework that supports employees' autonomous career building.



## Formulating the Career Development Program (CDP)

The CDP is based on personnel requirements, job rotation, and career building support systems, promoting employees' autonomous career building and skill development. Through human resource development measures implemented from a medium-to long-term and comprehensive perspective via CDPs, we aim to develop human resources that increase the value of both the Company and its employees.

### Overview of the CDP



## Diverse CDPs

We have created CDPs for women, allowing them to proactively achieve career building aligned with their major life events. In addition, we have initiated a cross-sectional CDP that transcends the boundaries of business divisions and Group companies and are aiming to flexibly assign human resources to enable us to respond to future changes in power supply composition and business models.

## Personnel Requirements and Job Rotation

The Group lays out its personnel requirements according to job type, business division, job function, and position, as well as specifies the required abilities (behavioral requirements), knowledge and skills, recommended qualifications and training, etc. Furthermore, the Company divides its employees' overall careers into three broad stages: the basic knowledge and skill acquisition stage, the expert stage, and the professional stage, promoting the acquisition of abilities necessary for each stage through job rotation.

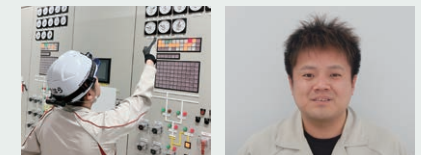
### Topics

#### Cross-Group CDP

We have implemented the Cross-Group CDP, a program for sharing human resources among Group companies, since 2021, in order to adapt to changes in the business environment surrounding the J-POWER Group and foster business growth. To date, 34 technical employees from thermal Group companies have been seconded to J-POWER Headquarters and to hydro-electric/wind, telecommunications, and IT departments of Group companies. We are committed to increasing the Group's competitiveness by providing employees with opportunities to broaden their knowledge, advance their careers, and share experiences across Group companies.

#### Comments from a Program Participant

I joined J-POWER Generation Service Co., Ltd. as an electrical engineer, where I operated key equipment at thermal power plants. Since January 2022, following my participation in this program, I have been working at J-POWER HYTEC Co., Ltd., Kamishihoro Office, which is dedicated to operating and maintaining hydroelectric power plants. Currently, my responsibilities include inspecting electric facilities, safety equipment, and distribution lines, as well as upgrading transformers. I am confident that the maintenance knowledge and skills I have acquired here can be fully applied in thermal power plants. I feel that this experience has significantly contributed to my professional growth, allowing me to undertake tasks that I would not have encountered at a single company.



**Yuki Tahara**  
Kamishihoro Office, Electricity Group,  
J-POWER HYTEC Co., Ltd.

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# Human Resource Development and Management

Material issues ▶



Respect for people

## Autonomous career building

### Declaration System

Every year, employees make a declaration to the companies about their future career outlook, based in part on an examination of their execution of work duties and abilities. The employee's manager discusses the declarations with the employee, offers advice as appropriate from a medium- to long-term human resource development perspective, and plans and implements employee rotations as needed.

### Training System and Support for Taking on Challenges

In addition to new employee training, the Company implements training programs that align with the career and life stages of its employees. In purpose-specific training, we provide tailored programs that addresses changes in the business environment, including DX and carbon neutrality, as well as the enhancement of business skills. To develop next-generation management candidates, the Company conducts training programs that focus on identifying management issues, formulating solutions, and engaging in discussions with executives. Furthermore, the Company implements a full range of initiatives to support employees' efforts toward autonomous career building and skill development, including open internal recruitment for in-house internships and projects and overseas exchange programs for study and work.

#### Training System

- Level-Specific Training, Department-Specific Training
- Purpose-Specific Training, Management Training
- Encouragement of Self-Improvement

#### Support for Challenges & Open Internal Recruitment

- Project-Specific Open Internal Recruitment
- In-house Internship
- Exchange Program (Graduate schools in Japan or abroad)
- Work Exchange Program (Gain work experience in developing countries)

### Topics

#### Comments from a Project-Specific Open Internal Recruitment System User

I was interested in overseas business since I first joined the Company, so I applied for a position at our local subsidiary in Vietnam through the open internal recruitment system. I am currently conducting market research and engaging in discussions with local partners to participate in new projects in Vietnam. Working and living in a foreign country enabled me to adapt to new environments, handle new business operations, and refine my communication skills with people from different cultural backgrounds. I aim to deepen my understanding of overseas markets and enhance my project development expertise and skills, ultimately preparing myself to take on a leadership role in our international projects.



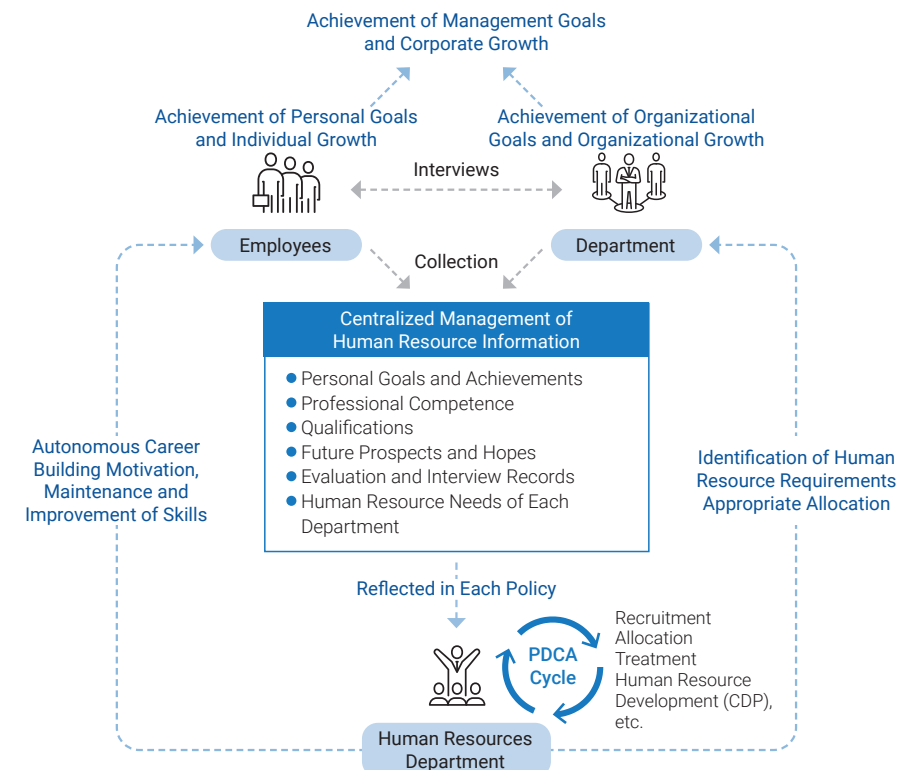
**Nanako Aino**  
Seconded to  
J-POWER VIETNAM  
Co., Ltd.

## Evaluation Management

We have adopted a system to evaluate performance based on both achievements measured using a goal management system and abilities demonstrated in the execution of duties. We centrally keep track of these evaluations, status of job performance, and information self-reported by employees, such as their future outlook and goals, and take these into account in our various policies, including those for the development and strategic allocation of human resources.

We work to accomplish both organizational and individual goals by assigning human resources appropriately and by assisting employees in advancing their careers and keeping them motivated, which enables us to accomplish our management goals.

### Human Resource Management at a Glance

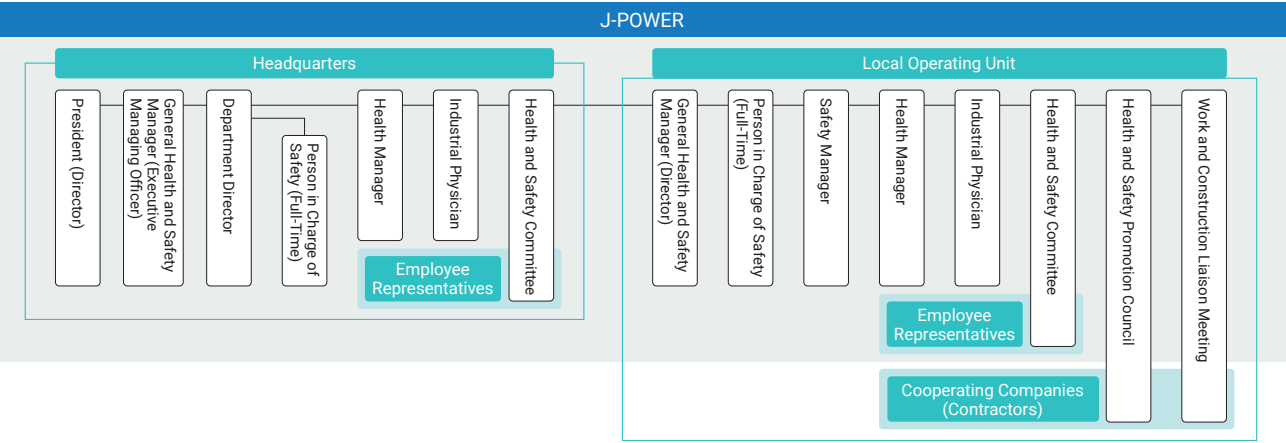


- The J-POWER Group aims to create safe, healthy, and rewarding workplaces as the foundation of its business activities.
- In the area of respect for people, which is one of our material issues, we are also promoting initiatives to ensure occupational health and safety.
- J-POWER Group companies each have roles and responsibilities and collaborate on implementing health and safety management to prevent occupational accidents, including those of cooperating companies (contractors), and to maintain and improve the health of employees.

Health and Safety Management Systems

Based on laws and regulations, the Group engages in initiatives to prevent dangers and health hazards to employees primarily through health and safety committees at Headquarters and local operating units such as power plants. Health and safety committees are composed of a general health and safety manager, a safety manager, a health manager, an industrial physician, and representatives of labor unions. Health and safety committees engage in preemptive risk assessment regarding matters such as the work employees perform, consider safety measures, and examine measures to prevent the recurrence of occupational accidents and health hazards that have occurred. Meanwhile, health and safety promotion councils coordinate with Group companies and cooperating companies in order to advance health and safety initiatives for power plants, and other locations as a whole.

Health and Safety Management System



Additionally, in October 2023, the Company established a Labor & Plant Safety Management Department as a dedicated organization to consolidate occupational safety and facilities security functions. The establishment of this new department, operating independently from other executive departments, will enhance coordination between occupational safety and facilities security operations, foster the development of specialized human resources in both areas, and further elevate safety awareness across the Group.

Initiatives Based on the Group Operational Health and Safety Plan

Every year, the Group establishes a Group Operational Health and Safety Plan with individual Group companies formulating their own operational health and safety plans based on this framework. The whole Group is working together in taking measures to promote occupational health and safety.

Occupational Accident Prevention Initiatives

Most of the occupational accidents in the Group in recent years have occurred among contractors engaged in construction and other work. Many of these are recurring accidents that are serious or have the potential to become serious. It is therefore extremely important to promote unified safety activities that include partner companies to prevent and eliminate accidents involving contractors. To this end, under the slogan of integrating facilities, management, and people, which are our operational safety priorities, we are advancing more effective activities in these areas with a focus on preventing occupational accidents.

- Facilities: Implement reliable countermeasures based on risk assessments, customized to the specific conditions at each site
- Management:
- Ensure organizational safety management instead of relying solely on individual efforts
  - Implement initiatives with an awareness of the tasks to be handled by *Hitori* [one person] (1H), while also adhering to the paradigm of *Hajimete* [first time], *Henko* [difference from the previous time], and *Hisashiburi* [first time in a while] (3Hs)
- People:
- Enhance communication through guidance, training, education, information sharing, and other efforts, in order to improve safety awareness
  - Proactively develop early- and mid-career professionals in safety to elevate safety standards throughout the Group

We also work to promote and establish safety-first behavior at the J-POWER Group Safety and Health Conference, which engages participants at all levels including the President. We evaluate construction techniques and procedures when placing construction orders to make sure that work proceeds in a clean and safe environment. The Executive Committee and the Board of Directors receive and share updates on the status of incidents, their causes, and steps taken to prevent future occurrences each time an incident occurs and on a regular basis.

FY2024 Group Operational Health and Safety Plan		
Major Targets	Operational Safety	No serious disasters
	Operational Health	Preventing lifestyle-related and infectious diseases and enhancing mental health care



## Occupational Health and Safety / Health and Productivity Management

Material issues ▶



Respect for people

### Health and Safety Training

J-POWER implements health and safety training for Group companies at J-POWER Headquarters and local operating units for the purpose of improving the health and safety of the entire Group. In addition, local operating units implement safety training suitable for their business operations, such as legally mandated training for new hires and employees newly transferred in, special training for work involving electricity, and training about relevant laws and regulations. These units also implement mental health-related training on line-of-command care and self-care. Management-level employees, such as superintendents, and dedicated safety staff are required to participate in seminars and courses held by external organizations in order to improve their health and safety knowledge and management skills and to raise safety awareness. In FY2023, about 1,000 employees participated in such training programs held by J-POWER Headquarters.



Risk simulation training



Safety management training

### Health and Safety Management with Regard to Radiation

The Group is proceeding with the construction of the Ohma Nuclear Power Plant in Oma Town, Shimokita District, Aomori Prefecture. Currently, there is no danger of employees and workers being affected by radiation. However, we plan to establish a health and safety management system related to radiation by the time that it becomes necessary.

### Basic Policy on Occupational Health and Safety

The Company aims to create safe, healthy, and rewarding workplaces that serve as the foundation for the J-POWER Group's business activities, with the utmost priority given to ensuring safety.

The Company and general directors of operating units play their parts in improving the health and safety standards for the J-POWER Group through overall health and safety management, with the cooperation of employees and all concerned. These measures help prevent occupational accidents and promote both physical and mental health.

#### ① Creating Rewarding Workplaces

The Company works to create rewarding workplaces that enable each and every employee to realize safety, health and self-fulfillment, thereby facilitating the active participation of a diverse group of human resources, including experienced senior employees.

#### ② Improving Health and Safety Standards

While complying with laws, regulations, internal regulations, and other relevant rules, the Company will effectively operate its occupational health and safety management system for activities and initiatives aligned with this policy and the Operational Health and Safety Plan, with the aim of continuously improving the health and safety standards.

#### ③ Preventing Occupational Accidents

With a focus on inherent safety, the Company will advance effective initiatives that integrate facilities, management, and people to achieve zero accidents.

#### ④ Maintaining the Physical and Mental Health

Under the slogan "from treatment to prevention," the Company will implement initiatives to help employees work vibrantly and improve working environments to enhance the physical and mental health of its employees and their families.

The Company and general directors of operating units strive to realize this basic policy by setting an example through their own efforts. When a situation arises that runs contrary to this aim, the Company and general directors of operating units will take the initiative to solve the problem while working to investigate the cause, prevent recurrences, and take appropriate measures.

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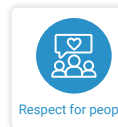
J-POWER Group Basic Policy on Human Rights

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## Occupational Health and Safety / Health and Productivity Management

Material issues ▶



### Maintaining the Physical and Mental Health of Employees and Their Families

We promote health checkups and detailed health maintenance guidance based on the results of the checkups and take infectious disease prevention measures to maintain and improve the health of employees and their families. With an emphasis on prevention against lifestyle-related diseases and mental health problems, we aim to maintain and improve the high consultation rate (90% or more) with regard to comprehensive medical checkups. As a result, in FY2023, the target was met with a 91.6% success rate. By implementing various follow-up activities, such as mental health training based on the results of stress tests, and health maintenance and promotion activities, we also boost both physical and mental health.

#### Promoting Health & Productivity Management

Under the slogan “from treatment to prevention,” J-POWER Group promotes health management by engaging in health maintenance and improvement activities while being cognizant of the PDCA cycle. Specifically, we held a walking event for employees and their families and a health assessment event featuring game-oriented measurement of walking posture and brain age, provided financial support and encouraged participation in a smoking cessation program, hosted a seminar with a physician on menopause-related health issues, and implemented other initiatives. In FY2023, we also administered influenza vaccinations at Company sites to support our efforts in ensuring a stable supply of electric power.

In recognition of these efforts, J-POWER was certified in FY2024 as a Health & Productivity Management Outstanding Organization by the recognition program jointly implemented by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council) (for the sixth consecutive year). J-POWER Business Service Corporation (for the third consecutive year) and J-POWER Design Co., Ltd. (for the second consecutive year) were also certified by the same program. Going forward, we will continue accelerating the pace of our health management initiatives and aim to further enhance corporate value through the improved health and satisfaction of our employees.



Health assessment event

#### Initiatives by the Wellbeing Support Center

In order to support the physical and mental conditioning of each and every employee, the Group has established the Wellbeing Support Center as a dedicated organization. The Group will encourage centralized management of data on the findings of health exams and stress tests and ongoing monitoring of the physical and mental health conditions. Additionally, we will take measures to enhance employees' health across the entire Group to foster an environment in which the human resources that underpin the Group's operations can play an active role.

### Employee Engagement

We conduct an engagement survey to quantitatively evaluate employee status in two key areas: work engagement, which reflects employees' enthusiasm and attitude toward their work; and employee engagement, which denotes their sense of belonging and attachment to the Company. In the FY2023 survey, 96.7% of employees participated. Of those who responded, 59.5% provided positive feedback on work engagement questions, while 67.2% responded positively to employee engagement questions.

As part of our ongoing efforts, we will enhance engagement by revitalizing communication between management and employees, along with other initiatives. Simultaneously, we will continue conducting this survey to identify issues that need to be prioritized and reflect them in our human resources and labor policies.

#### Conducting Management Discussion Meetings

The J-POWER Group holds J-POWER Group management discussion meetings, providing a platform for direct exchanges of opinions between management and employees. In FY2023, executives from the Company and its Group companies visited 30 locations (over 130 institutions within the Group) across Japan, including the head offices of the five main Group companies, to exchange opinions with employees working on the front lines of ensuring a stable energy supply. To improve business execution, opinions and comments from each operating unit are discussed during opinion exchange meetings among Directors and in other similar sessions. Below are some comments and opinions received during the recent management discussion meetings:

Category	Main Opinions
Personnel and employee relations	Human resource development and autonomous career building
Operational efficiency	Review of the appropriate criteria for delegating authority to ensure efficient business execution
DX	Budgeting for individual DX initiatives at local operating units
Internal communication	Implementation of cross-divisional exchanges of opinions on management strategy among employees

Furthermore, we enhanced communication across the organization as a measure to improve engagement. Alongside this, we held an event for junior employees working at the headquarters to facilitate cross-divisional exchanges of opinions as part of our efforts to create a working environment where everyone feels confident in expressing their opinions. The opinions and comments from the event were anonymized and forwarded to the respective superintendents to drive various improvement initiatives.

# Corporate Governance

## Basic Policy


In accordance with its Corporate Philosophy, the J-POWER Group endeavors to enhance corporate governance on an ongoing basis in order to realize sustainable growth and improve corporate value over the medium- to long-term. The Group believes these outcomes can only be achieved in cooperation with a wide range of important stakeholders, including shareholders. The Company respects shareholder rights in order to allow for proper collaboration with shareholders. The Group also strives to engage in dialogue with stakeholders in order to build relationships of trust with all of them.

J-POWER has established the Basic Policy on Corporate Governance, establishing its basic policy and stance with regards to corporate governance. For more information about the Company's Basic Policy on Corporate Governance, please refer to the J-POWER website.


 <https://www.jpower.co.jp/english/sustainability/governance/pdf/cg2306.pdf>

## Changes to Strengthen Corporate Governance


- FY2004





Fully privatized by listing on the First Section of the Tokyo Stock Exchange
- FY2006





Strengthened the Audit & Supervisory Committee Member system  
(Transitioned to a system of **three** outside Audit & Supervisory Board Members)
- FY2009




Invitation of **one** Outside Director (Ratio of Outside Directors **1/14**) 
- FY2014





Transitioned to a **two-person** Outside Director system   
(Ratio of Outside Directors **2/13**)
- FY2015




Established the Basic Policy on Corporate Governance  
Started evaluation of the effectiveness of the Board of Directors
- FY2016





Transitioned to a **three-person** Outside Director system   
(Ratio of Outside Directors **3/14**)
- FY2019



Expansion of the executive officer system (clarification of business execution functions)  
Established the Nomination and Compensation Committee
- FY2022



Transitioned to a company with an Audit & Supervisory Committee (Ratio of Outside Directors **6/16**)   
Introduction of performance-linked remuneration and stock compensation
- FY2023



Raised the percentage of performance-linked remuneration from 10% to around 20%.  
Incorporated non-financial indicators as evaluation indicators for performance-linked remuneration

## Strategic Shareholdings

J-POWER does not maintain strategic shareholdings unless such shareholdings are deemed to serve a purpose. For details, such as the purpose of any shareholdings, please see our website.

## Number of Specified Investment Shares and Carrying Amount Stated on Balance Sheet

	FY2019	FY2020	FY2021	FY2022	FY2023
Number of Shares Issued	18	17	16*	16*	16*
Carrying Amount Stated on Balance Sheet (millions of yen)	21,039	26,177	28,455	28,111	41,613

\* Excludes one listed startup company

 <https://www.jpower.co.jp/english/sustainability/governance/governance.html>

## General Meeting of Shareholders

J-POWER provides shareholders with information that it believes to be useful for appropriate decision making at general meetings of shareholders. To this end, the Company is constantly striving to improve the content of its annual general meeting of shareholders notice, reference materials, and business reports. It also provides information via financial results, timely disclosure materials, and disclosure via its website, as needed.

The Company distributes a notice of its annual general meeting of shareholders around four weeks prior to the meeting date in Japanese and three weeks prior in English to ensure that shareholders have sufficient time to consider the proposals to be put before the meetings and enable them to appropriately exercise their voting rights. Moreover, the Group strives to avoid scheduling the general meeting of shareholders for the dates most crowded with other companies' shareholder meetings.

## Ensuring Shareholder Rights and Equality

The Company's policy regarding shareholder rights, such as voting rights at the general meeting of shareholders, is to respect such rights and ensure the substantial equality of shareholders. In addition, the Company gives consideration to ensuring that the special rights that are granted to minority shareholders are upheld with regard to confronting listed companies and their officers (including the right to seek an injunction against illegal activities and the right to file a shareholder lawsuit).



# Corporate Governance

## Investor Relations

### Relationship with Shareholders and Investors

We disseminate information primarily through our website, integrated reports, shareholder newsletters, and J-POWER Shares (an organization exclusively for shareholders), along with such disclosures as annual securities reports and financial statements. Based on the disclosed information, J-POWER not only interacts with shareholders at general meetings of shareholders, but also at financial results briefings, facility tours, company presentations for individual investors, and one-on-one meetings with institutional investors. Through these dialogues, we seek to gain an understanding of the social value we provide to our shareholders and investors, as well as the financial benefits of our business strategies. We report the opinions we receive through these dialogues to the Board of Directors on a quarterly basis, and reflect them in our business strategies and enhance our disclosure materials.

#### Status of Dialogue with Shareholders

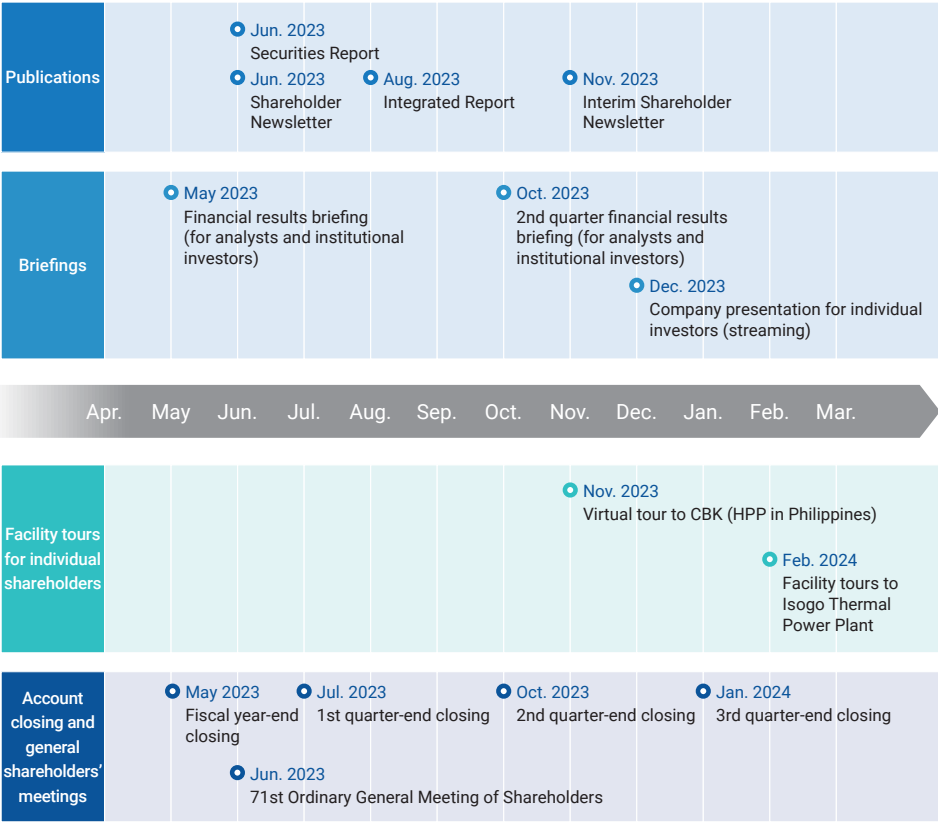
Main Correspondents	President, Directors and Managing Executive Officer in Charge of Investor Relations
Shareholder Overview	Analysts involved in active management in Japan and abroad, ESG analysts involved in passive management, persons in charge of exercising voting rights, and individual investors
Main themes	Financial results and outlook, progress in addressing climate change, etc.
Insights gained	During the IR/ESG meetings, a recurring key topic of discussion was how changes in the operational patterns of thermal power plants affect our results of operations and targets for reducing CO <sub>2</sub> emissions. Based on the preceding discussion, we have realized that aligning the transition of thermal power plants with the actual supply and demand for power in Japan will help reduce volatility in our results of operations. Given these findings, we specified potential directions for our thermal power plants by 2050 in the Medium-Term Management Plan and reorganized the key points to facilitate further discussions.

#### Dialogue with Shareholders (FY2023)

Facility tours	Virtual tour to CBK (hydroelectric power plants in Philippines) held once, viewed by 140 visitors (Number of views) Facility tours to Isogo Thermal Power Plant held on five dates, with approx. 130 participants
Company information sessions (for individual shareholders)	Held once online, viewed by 670 people (Number of views)
Financial results briefings Various small meetings	Held a total of 5 times, online and in person
Individual meetings	Approximately 150 meetings held online, in person, and via other formats

#### IR Calendar (FY2023)

In addition to conducting briefings throughout the year, we publish various IR materials.



Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec. Jan. Feb. Mar.



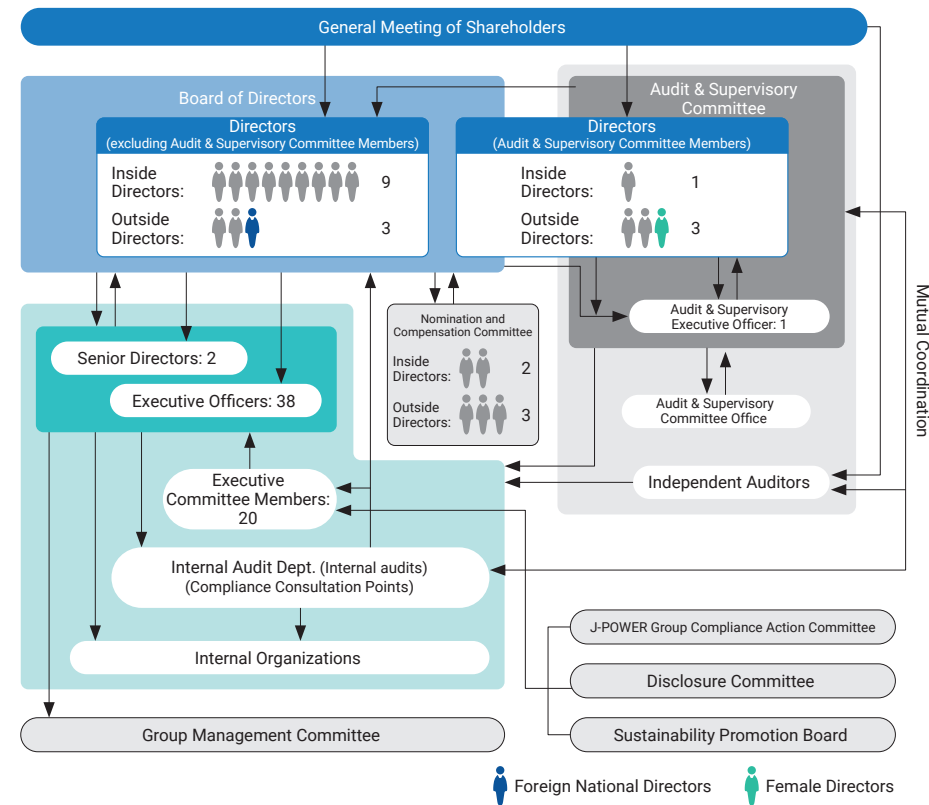
## Corporate Governance

Material issues ▶



### Composition of the Board of Directors and Committees

**Corporate Governance Structure** (As of June 26, 2024)



#### Attendance at meetings of the Board of Directors, Nomination and Compensation Committee, and Audit & Supervisory Committee

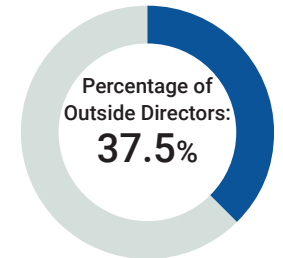
\*Attendance = number of meetings actually attended ÷ total number of meetings that each director/committee member must attend

	Number of members	Number of meetings held	Attendance
Board of Directors	16	13	97.5%
Nomination and Compensation Committee	5	2	100%

#### Composition of Board of Directors

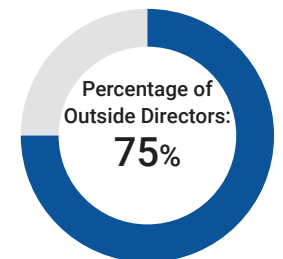
The Board of Directors is composed of Directors with abundant experience, deep insight and highly specialized knowledge to maintain balance and diversity in the knowledge, experience, and abilities of the Board of Directors as a whole. The Board is composed of no more than 12 Directors (excluding those who are members of the Audit & Supervisory Committee) and four Directors who are members of the Audit & Supervisory Committee.

To ensure the effectiveness of the independent and objective management supervision by the Board of Directors, the Company endeavors to have at least one-third of its Directors be Independent Outside Directors who are selected for their experience, knowledge, specialization, and other attributes.



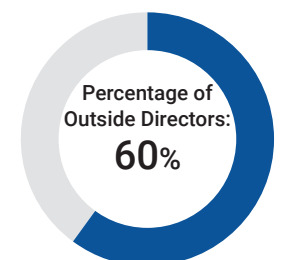
#### Composition of the Audit & Supervisory Committee

The Audit & Supervisory Committee is composed of no more than four Directors who are Audit & Supervisory Committee Members, the majority of whom are Independent Outside Directors with two full-time Audit & Supervisory Committee Members selected. At least one person with appropriate knowledge of finance and accounting is appointed as an Audit & Supervisory Committee Member. The effectiveness of audits is enhanced by combining the strong independence derived from the Committee's composition with the full-time Audit & Supervisory Committee Members' strong capability to gather information.



#### Composition of the Nomination and Compensation Committee

The Company established a Nomination and Compensation Committee as an advisory body to the Board of Directors. More than half of its members serve as Independent Outside Directors to enhance the independence, objectivity, and accountability of the Board of Directors with regard to the nomination and compensation of Directors and senior management. In addition, the regulations stipulate that Committee members who have a special interest in agenda items cannot participate in any related vote or resolution.



# Corporate Governance

## System for the Execution of Directors’ Duties

### Ensuring Effectiveness of Business Execution

The Board of Directors meets monthly in principle\* and on an as-needed basis, with attendance of all of the Directors, including Outside Directors. The Executive Committee meets weekly in principle, with attendance by all Senior Directors, Senior Executive Officers, the Audit & Supervisory Executive Officer, and full-time Audit & Supervisory Committee Members. The Executive Committee discusses matters subject to deliberation by the Board of Directors, significant company-wide matters related to business execution by the President and Executive Vice Presidents based on policies decided by the Board of Directors, and important matters related to individual business execution.

In addition to the Board of Directors’ delegation of certain decision making responsibilities for the execution of important business to Senior Directors in accordance with the Articles of Incorporation (excluding respective items in paragraph 5 of Article 399-13 of the Companies Act), as well as allocating functions by the Board of Directors and the Executive Committee, the Company clarifies responsibility and authority thereby ensuring accurate and prompt decision-making and efficient corporate management by establishing a system in which Executive Officers, to whom authority is delegated by Senior Directors, share responsibility for business execution.

\* The Board of Directors met 13 times during FY2023.

### Ensuring Appropriateness in Business Execution

The Company has established an Internal Audit Department to ensure proper business execution and conduct internal audits from a position independent from the other operating units. The Internal Audit Department reports the audit results to Senior Directors and Audit & Supervisory Committee Members, notifies the audited department in writing to request improvements, and reports to relevant parties including the Audit & Supervisory Committee, the Board of Directors, and the Executive Committee at the end of the period.

Each operating unit also conducts periodic self-audits of the execution of business in its unit to enhance the quality of its business operations.

### Preventing Conflicts of Interest

The Directors of the Company, in accordance with its Corporate Philosophy, Corporate Conduct Rules, and Compliance Action Guidelines, exemplify honest and fair conduct based on a

steadfast spirit of compliance and business ethics. In addition, the Company works to prevent conflicts of interest in the event that the Company engages in a transaction with a Director or a major shareholder\* by obtaining the approval of the Board of Directors before executing the transaction and reporting the results of the transaction to the Board of Directors.

\* Shareholders with shares representing 10% or more of the voting rights in the Company

## Audit System

### Audit & Supervisory Committee

The Audit & Supervisory Committee was established in accordance with the Companies Act to audit the legality and appropriateness of the execution of duties by directors. Audit & Supervisory Committee Members conduct audits at J-POWER’s Headquarters by attending and speaking at important meetings of the Board of Directors and by interviewing the Directors (excluding those who are members of the Audit & Supervisory Committee) and Executive Officers on the status of the execution of duties. The Audit & Supervisory Committee also carries out site visits to local operating units and subsidiaries in Japan and overseas.

During the accounting audits, the Audit & Supervisory Committee liaises with the Independent Auditors to regularly receive reports and exchange opinions regarding auditing schedules and the audit results. This enables the Audit & Supervisory Committee to judge the validity of the auditing method of the Independent Auditors and the results of the audits.

### Audit & Supervisory Executive Officer

As a system to assist the Audit & Supervisory Committee Members in their audits, etc., the Company has established an Office of Audit & Supervisory Committee Members and specially appoints an Audit & Supervisory Committee Member. The Audit & Supervisory Executive Officer is well-versed in the Company’s business and independent from the chain of command of the Directors who are not Audit & Supervisory Committee Members. The specially appointed member assists the Audit & Supervisory Committee with audits, etc. under the direction of the Audit & Supervisory Committee from the same perspective as the Audit & Supervisory Committee Members. In this way, the Audit & Supervisory Committee and the Internal Audit Department cooperate and audit the executive department more effectively. Full-time specialist staff working in the Office of Audit & Supervisory Committee Members, which is also independent from the Directors’ chain of command, assist

with audits and other matters conducted by the Audit & Supervisory Committee.

### Internal Audit Department

Audit & Supervisory Committee Members coordinate auditing schedules with those of the Internal Audit Department and implement audits while exchanging information on audit results during the fiscal year. Where necessary, the Audit & Supervisory Committee instructs the Internal Audit Department on reporting, investigations, and other matters. As a result, we are strengthening mutual cooperation between the Audit & Supervisory Committee and the Internal Audit Department, working to enhance the use of the internal control system in the Audit & Supervisory Committee.

## Group Governance

With regard to the administration of subsidiaries and affiliates, the J-POWER Group’s basic policy calls for group-wide business development in accordance with the Group’s management plan. The administration of subsidiaries and affiliates is undertaken in accordance with the Company’s internal regulations, and the Group Management Committee works to improve the appropriateness of operations for the entire corporate Group. In addition, the Audit & Supervisory Committee Members and the Internal Audit Department implement audits of subsidiaries and affiliates with the objective of ensuring proper operations at all Group companies.

### Basic Policy on Tax Transparency

The Group upholds honest and fair business practices with a steadfast spirit of compliance and business ethics as part of its conduct rules.

To maintain and enhance tax compliance, we will, with the proactive involvement and guidance of the Finance Officer, strive to provide training and instruction on proper accounting practices and tax filing.

Additionally, in compliance with tax-related laws and regulations applicable in all the countries where we operate, we will fulfill our corporate social responsibility by ensuring proper filing and timely tax payments. We are also committed to maintaining positive relationships with tax authorities. We will address requests from tax authorities in good faith and, in the event of any disagreements, actively seek to resolve them through constructive dialogue.

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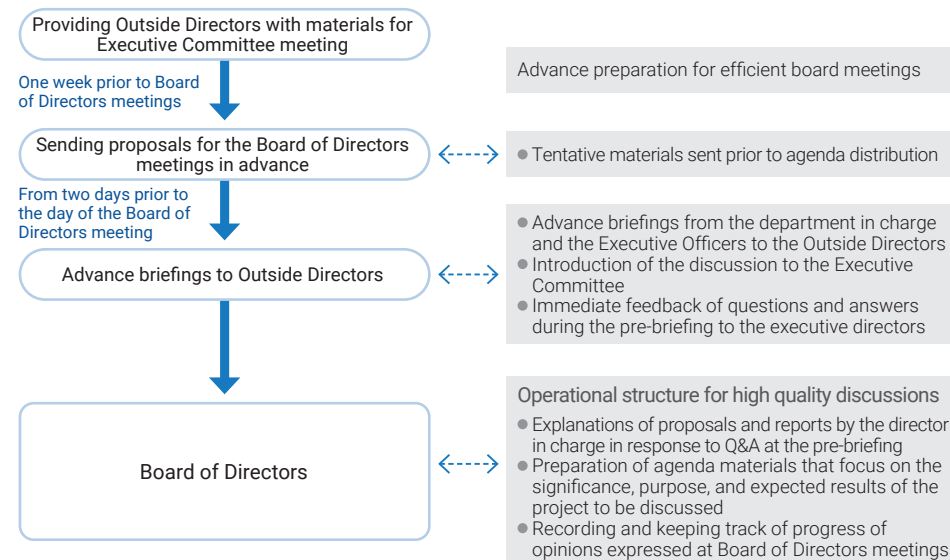


## Initiatives to Stimulate Board of Directors' Discussions

With the aim of enhancing corporate governance, J-POWER reviews as necessary how its Board of Directors operates. The Company strives to conduct Board of Directors meetings efficiently and improve dialogue through advance briefings and a well-established operational structure, while also providing opportunities to freely and frankly share opinions in informal settings outside of Board meetings.

## Board of Directors Deliberation Flow

At each meeting of the  
Executive Committee



## Examples of Items Discussed at Board of Directors Meetings

Climate change-related	Management plan / Research and development (Osaki CoolGen) / Establishment of domestic CCS preparatory company / Status of ESG initiatives
Finance & Accounts	Quarterly and year-end financial results / Dividends / Budgetary results and annual forecast
Governance and Compliance	Evaluation of effectiveness of the Board of Directors / Report on internal audit results / Report on compliance promotion activities
Projects	Domestic onshore wind power projects (new developments and replacements) / Domestic offshore wind power projects / Domestic power transmission projects / Overseas projects / Ohma Nuclear Power Plant
Other	Confirmation of policy shareholdings / IR and SR reporting, etc.

## Providing Outside Directors with Information and Informal Discussion Opportunities

In addition to the Board of Directors meetings, informal efforts are being made to enhance the monitoring function of the Board of Directors, improve the information provided to Outside Directors, and create opportunities for a frank exchange of opinions by holding meetings where all members can express their thoughts.

We have received a lot of comments and counsel from the perspectives of the Outside Directors during these discussions, not just on medium- and long-term management issues but also on our corporate culture and organizational structure.

Additional initiatives include discussions between directors and onsite workers and executive visits to power plants and other facilities. We will continue to seek to improve corporate governance and increase corporate value based on the insights we have received from these discussions.

## Results of Initiatives in FY2023

- Exchange of opinions by all members of the Board of Directors (8 times)
- Small meetings for Outside Directors (once)
- Lunch meetings between the Chairman, President, Outside Directors, etc.
- Visits to power plants by Outside Directors (6 times)
- A lecture by an external expert on climate change and the energy situation, etc. (once)
- Exchange of opinions among non-executive directors (3 times)



Facility visit by Outside Directors

[P.97 Dialogue Between Outside Directors and Investors](#)

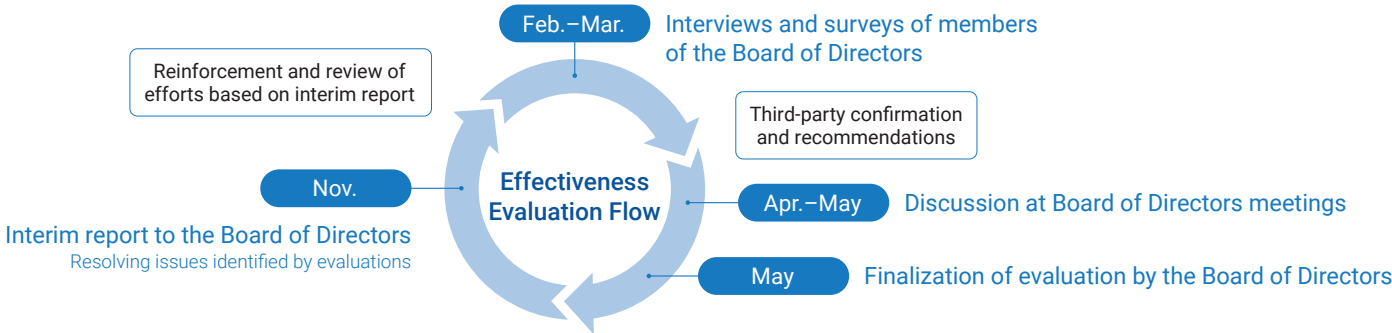
# Corporate Governance

Material issues ▶



## Evaluation of Effectiveness of the Board of Directors

The Company analyzes and evaluates the effectiveness of the Board of Directors on an annual basis.



### ● FY2023 Initiatives



During FY2023, we intensively engaged in the following initiatives based on the directions identified in the FY2022 effectiveness evaluation: enhancing opportunities for free-spirited discussions, and further enhancing the operation of the Board of Directors, taking into account the transition to a company with an Audit & Supervisory Committee system.

#### Enhance opportunities for free-spirited discussions

- Held intensive meetings to exchange opinions on the future vision and important management issues of the Company
- Conducted exchanges of opinions among non-executive directors
- Continuously conducted exchanges of opinions among all members of the Board of Directors and small-discussion group meetings between Outside Directors, executive officers, and relevant departments (small meetings)

#### Further enhance the operation of the Board of Directors, taking into account the transition to a company with an Audit & Supervisory Committee system

- Confirmed the improvements and progress made in connection with the list of points raised by the Board of Directors
- Explanations given in meetings of the Board of Directors by Executive Managing Officers who are not Directors

### Evaluation Method

1. In February 2024, with the support of a third-party organization, we conducted a questionnaire\* of all 16 board members, including six outside officers.
2. Interviews regarding the questionnaire responses and FY2023 initiatives were held in March 2024.
3. Discussion based on the results of 1 and 2 at the Board of Directors meeting held in April 2024.
4. Evaluation results were confirmed at the Board of Directors meeting held in May 2024.

#### \* Questionnaire items

- I Composition of the Board of Directors
- II Operation of the Board of Directors
- III Discussions of the Board of Directors
- IV Monitoring functions of the Board of Directors
- V Support system for directors
- VI Dialogue with shareholders (investors)
- VII Summary

### Evaluation Results

Through the questionnaire and interviews, we determined that the Board of Directors' effectiveness was secured. It was confirmed that the ongoing initiatives were regarded as important in ensuring the effectiveness of the Board of Directors and that, accordingly, they were to be implemented consistently into the future.

#### Main opinions in this year's evaluation

- In light of changes in the business environment in which we find ourselves, it is essential that discussions are fully devoted to management direction from a medium- to long-term perspective, including the Group-wide business portfolio.
- While the matters to be delegated from the Board of Directors to Directors were being organized along with the Company's transition to a company with an Audit & Supervisory Committee, further delegation should be considered. It is crucial to continue and enhance our initiatives leading up to FY2023.

For FY2024, we have confirmed that it is effective to utilize the ongoing initiatives and measures introduced to date, and to continue implementing specific initiatives from the previous year, with the following matters being treated as priorities:

1. further enhancing opportunities for free-spirited discussions; and
2. further enhancing the operation of the Board of Directors. The Company will continue to strive to improve the effectiveness of the Board of Directors through ongoing and further initiatives.



## Corporate Governance

### Appointment and Dismissal of Officers

The Board of Directors appoints as members of top management and nominates as candidates for Director and Audit & Supervisory Committee Member individuals who have the abundant experience, distinguished knowledge, and advanced specialization necessary for those positions, based on discussion by the Board following the President's presentation of recommendations. The President's recommendations for members of top management and Director candidates are themselves based on the deliberations of the Nomination and Compensation Committee.

When a member of top management or a Director is found to have acted inappropriately or unreasonably, or there is some other marked impediment to the continued execution of the individual's duties, the Board of Directors may decide, based on discussion within the Board after deliberation by the Nomination and Compensation Committee, to dismiss or otherwise take action to deal with the member of top management or Director in question.

 [P.92 Nomination and Compensation Committee](#)

### Officers' Compensation

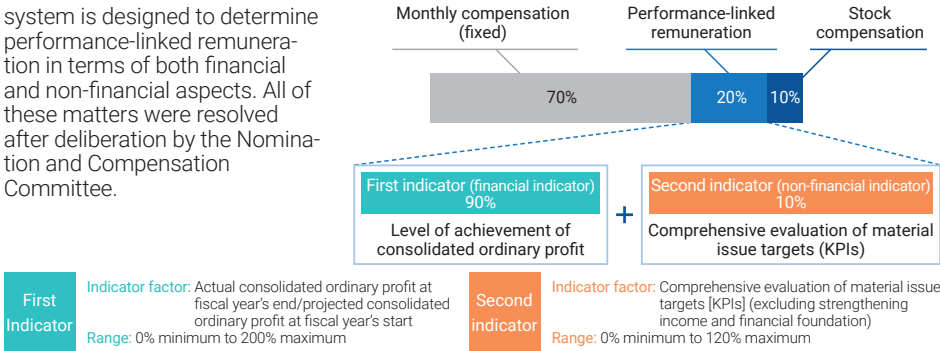
#### Composition of Officers' Compensation

- The Company has implemented a performance-linked remuneration and stock compensation system for the remuneration of its Directors (excluding Directors serving as Audit & Supervisory Committee Members) who are not Outside Directors, in order to better link their compensation with business performance and corporate value and to provide incentives for sustained improvement of business performance and increase in corporate value. As a result, the remuneration structure for Directors (excluding Directors serving as Audit & Supervisory Committee Members) who are not Outside Directors will consist of three parts: monthly compensation paid in cash, performance-linked remuneration, and stock compensation.
- It was resolved at the 70th Ordinary General Meeting of Shareholders on June 28, 2022 that the monetary compensation, that is monthly compensation and performance-linked remuneration, for Directors (excluding those who are members of the Audit Committee) shall be within 570 million yen per year (of which, 60 million yen is for Outside Directors. Employee salaries for Directors who serve in dual capacity as employees are excluded). Within the scope of this resolution, the method of determining the amount of remuneration for directors is determined by the Board of Directors. The remuneration structure for Outside Directors consists solely of monthly remuneration, excluding performance-linked remuneration and stock compensation, to ensure their independence from business execution. For executive officers, the method of determining the amount of compensation is resolved by the Board of Directors.
- The amount of remuneration for Directors who are Audit & Supervisory Committee Members was resolved at the above General Meeting of Shareholders to be no more than 120 million yen per year (fixed monthly compensation calculated based on position, etc.). Within the above amount, the amount of remuneration for each Director who is an Audit & Supervisory Committee Member is determined through discussion among Directors who are Audit & Supervisory Committee Members.

#### Performance-linked Remuneration

At the Board of Directors meeting held on February 28, 2023, the Board of Directors resolved to incorporate the material issues—supply of energy, response to climate change, respect for people, engagement with local communities, and the enhancement of our business foundation—which are initiatives aimed at improving corporate value over the medium to long term, in addition to consolidated ordinary profit, as evaluation indicators for performance-linked remuneration. The

system is designed to determine performance-linked remuneration in terms of both financial and non-financial aspects. All of these matters were resolved after deliberation by the Nomination and Compensation Committee.



- The payment percentage for performance-linked remuneration in FY2023 was as follows:

Indicator	Evaluation rate	Achievement rate	Payment percentage
First indicator (financial indicator) Level of achievement of consolidated ordinary profit	90%	Achievement rate = 108% Results: ¥118.5 billion / initial target for the period: ¥110.0 billion	105%
Second indicator (non-financial indicator) Comprehensive evaluation of material issues	10%	Achievement rate = 80% Five material issues [supply of energy, response to climate change, respect for people, engagement with local communities, and enhancement of our business foundation: each with a 20% weight] evaluated by the Nomination and Compensation Committee	

\* See P.12 for details on the material issue targets (KPIs) and their progress.

#### Stock Compensation

Under the stock compensation system, a trust, established by the Company and to which money is contributed, acquires J-POWER shares. The number of shares equivalent to the number of points granted by the Company to each Director, etc. is then distributed to each Director.

Resolved at the 70th Ordinary General Meeting of Shareholders on June 28, 2022

(1) Persons eligible for the Plan	Directors (excluding Directors who are Audit & Supervisory Committee Members) who are not Outside Directors
(2) Target period	Three fiscal years from the fiscal year ended March 31, 2023 to the fiscal year ending March 31, 2025
(3) Maximum amount of money that the Company will contribute as funds for the acquisition of shares of the Company necessary for distribution to (1) persons eligible for the System during the (2) target period.	Total of 165 million yen
(4) Method of acquiring shares of the Company	Through the undertaking of the disposal of the Company's treasury shares or through the exchange market (including off-floor trading)
(5) Maximum number of points granted to (1) persons eligible for the System	40,600 points per fiscal year *1 point = 1 share of the Company
(6) Criteria for gaining points	Points are granted based on position, etc.
(7) Time of distribution of shares of the Company to (1) persons eligible for the Plan	In principle, when Directors retire

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# Dialogue Between Outside Directors and Investors

In May 2024, we held a small meeting between our Outside Directors and investors. Approximately 40 institutional investors and analysts attended the meeting online to have a discussion with Outside Director John Buchanan and Outside Director and Audit & Supervisory Committee Member Kimiko Oga about topics such as Medium-Term Management Plan 2024–2026. Here we present the main questions asked by the investors and the answers from the Outside Directors.

## Currently, the J-POWER Group's business covers a wide range of areas, so what are your thoughts regarding the selection of a business portfolio for the future?

**Director Buchanan:** I acknowledge that the Company are making investments in a wide range of fields because it is difficult at present to clearly ascertain which technologies will become central to efforts to realize carbon neutrality in the future. We think that the timing for making judgements on which fields we should be focusing on will come in the next year or two, in accordance with developments such as the establishment of CCS and carbon pricing systems. As a company aiming to realize the business portfolio and business model transitions outlined in our Medium-Term Management Plan, future-oriented investment is extremely important, so we should be investing carefully in projects that offer investment value.

**Director Oga:** The Company has positioned the period of 2024 to 2026 as a time of transition in its business portfolio and business model in the Medium-Term Management Plan, and I acknowledge that it demonstrates a stronger approach that goes beyond the thermal power sector to encompass the transformation of the Company's entire business structure. I am aware that the recent global business environment, including the supply-side situation and geopolitical risk, has become extremely uncertain, so I am not sure if we can make a hasty decision on the areas we should focus on. Therefore, I expect the Company to think very carefully over the next year or two and arrive on a certain direction.

## As Outside Directors, what are your views on the Ohma Nuclear Power Plant Project?

**Director Buchanan:** The Ohma Nuclear Power Plant Project is a large-scale investment and I recognize that the fact it has yet to start operation is a serious issue. However, once operation does start, it will not only contribute to the Company's profits, but also play an extremely important role in Japan's overall nuclear power policy. In this way, it remains an important project.

## While the capital markets and companies have different requirements in terms of timeframes concerning shareholder returns, what do you think of the Company's approach and the content of discussions at Board of Directors meetings concerning this topic?

**Director Buchanan:** I think the approach of increasing shareholder returns is the correct one. At Board of Directors meetings, a variety of opinions are exchanged regarding shareholder returns, including share buy-backs, and these discussions are ongoing. The Company is addressing situations such as the deregulation of the electric power market, a transition in power generation methods, and concerns regarding resource prices driven by rising international tensions, so I think at present, we should be increasing shareholder returns by raising dividends.

## From the perspective of an Outside Director, are there any issues concerning the J-POWER Board of Directors?

**Director Oga:** I think there are firm silos in place when it comes to awareness concerning different forms of power generation, such as thermal and hydroelectric, and different fields. An overall strategy cannot be created by just combining the individual strategies of each organization, so I think there is room for improvements to be made in order to realize business model transition. Additionally, I always suggest that we should be creating business opportunities by making greater use of IT and other digital technologies and by combining data and power generation.

**Director Buchanan:** I think one area for improvement is that our organizational structure is a little rigid, but the atmosphere at Board of Directors meetings is heading in a good direction. Compared to when I was first appointed as an Outside Director, it is easier now to speak more freely with Inside Directors through opportunities such as exchanges of opinions, and discussions have become more dynamic.

## After the Meeting

**Director Buchanan:** This small meeting gave me the opportunity to hear the opinions and concerns of investors and analysts. One of the important roles of an Outside Director is to ensure a third-party perspective is reflected in discussions of the Board of Directors, and through today's interactions with investors, I was able to get a clearer understanding of how the Company's approaches and behaviors are being received externally.

**Director Oga:** It was extremely valuable to hear the direct opinions of investors and analysts regarding the Medium-Term Management Plan, which outlines the path to reducing CO<sub>2</sub> emissions from thermal power and the future direction of our business portfolio. They understood that capital policy for the power business, which is based on returns from long-term investment, is both important and challenging, but asserted that it is important for us to take an approach that meets the expectations of shareholders in the short to medium term as well. I want to focus on this as well as working toward carbon neutrality and practicing thorough governance.



Outside Director John Buchanan (left) and Outside Director and Audit & Supervisory Committee Member Kimiko Oga (right)

# Compliance & Risk Management

Material issues ▶



- The J-POWER Group, in accordance with its Corporate Philosophy, has established the Corporate Conduct Rules as outlining basic rules for behavior in line with a spirit of compliance and business ethics to be observed in the course of business operations.
- In addition, the Group has established its Compliance Action Guidelines as criteria for determining specific actions by individual employees, including members of management, when conducting business activities.
- The Board of Directors regularly receives reports on the status of business execution in order to keep up to date on risks, including ESG-related risks. This structure ensures measures are implemented to recognize and avoid risks in the conduct of business activities.

For details about the J-POWER Group's Corporate Conduct Rules and Compliance Action Guidelines, please refer to the J-POWER's website.

Corporate  
Conduct Rules

[https://www.jpowers.co.jp/english/company\\_info/philosophy/](https://www.jpowers.co.jp/english/company_info/philosophy/)

Compliance Action  
Guidelines

<https://www.jpowers.co.jp/english/sustainability/governance/compliance.html>

## Compliance Promotion Structure

The Chairman serves as the top compliance officer to promote compliance, with the President serving as the Chairman's assistant and the Compliance Officer serving as the Chairman's and President's assistant. The J-POWER Group Compliance Action Committee chaired by Chairman, in which Group companies are invited to participate, was established as a committee to promote compliance within the Group. The committee's duties include deliberating on compliance promotion measures, assessing the status of implementation, and addressing anti-compliance issues. In order to allow quick and accurate work connected to compliance promotion, two subcommittees have also been established under the Compliance Action Committee to promote compliance promotion activities and autonomous safety activities based on the safety standards. An experienced executive officer chairs each subcommittee and monitors the progress of compliance promotion initiatives during implementation.

Additionally, each of our domestic key corporate locations, power plants, and Group companies has developed its own Compliance Committee to create compliance initiatives catered to its unique features.

## Compliance Promotion Activities

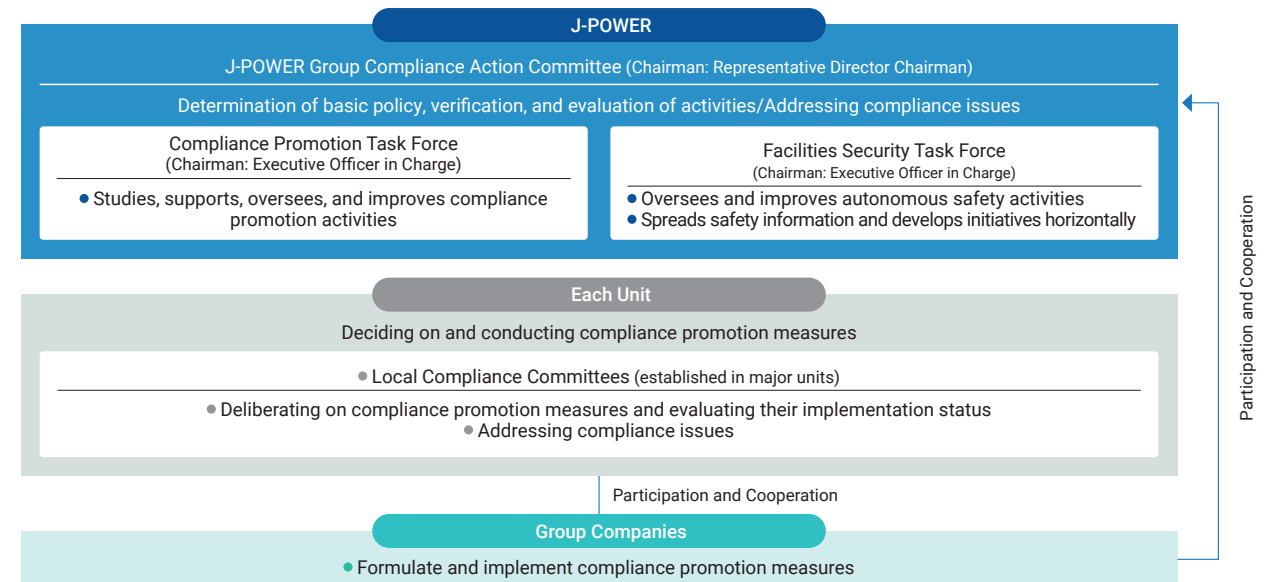
The Compliance Action Committee utilizes a PDCA (plan-do-check-act) method for compliance promotion, formulating a plan for each fiscal year, evaluating results at the end of that fiscal year, and formulating the next year's plan based on the results. The compliance promotion plan and evaluation are reported to the Board of Directors.

To raise compliance awareness among employees, the Company issues notifications of changes in laws and

regulations, presents compliance-related case studies, and conducts training sessions on laws and regulations related to its business and on compliance issues.

When alleged compliance violations occur, the Compliance Action Committee investigates the facts and causes surrounding the issues and takes appropriate action as necessary, including issuing directives for improvement or measures to prevent their recurrence.

### ○ The J-POWER Group's Compliance Promotion System



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## Compliance & Risk Management

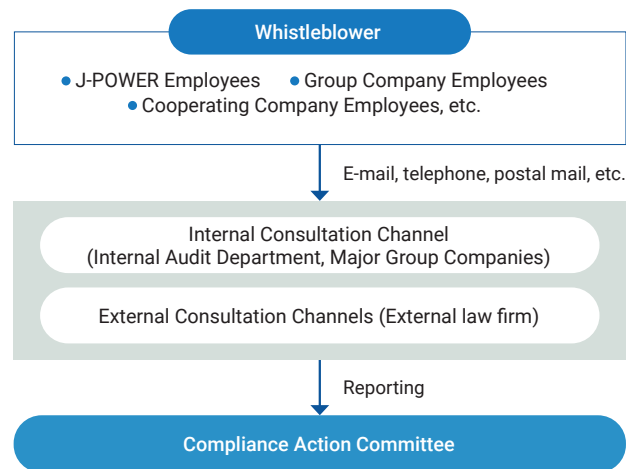
### Compliance Survey

The J-POWER Group conducts an annual survey of all employees in an effort to understand compliance-related risks. Compliance Consultation Points contact respondents whose responses indicate problems to gather additional information. The survey also seeks out employee opinions on workplace conditions, communication, and work volume on an ongoing basis. These results are used by Group's each unit to improve workplace environments.

### Compliance Consultation Channels (Whistle-Blowing System)

The J-POWER Group has established Compliance Consultation Channels at the Internal Audit Department, at an external law firm, and at key subsidiaries to serve as consulting hotlines in the event that employees face compliance issues. The Group has worked on the identification and improvement of issues. Employees who use these resources are rigorously protected.

#### ○ J-POWER Group Compliance Consultation Channels



### Barring Relations with Anti-Social Forces

The J-POWER Group's policy is to not maintain relations of any sort with the anti-social forces that threaten the order and safety of civil society. The Company has designated an internal department to act as a point of contact in the event that demands or other contacts are received from anti-social forces and has established a system that ensures quick collection of information and appropriate response in cooperation with specialist external agencies.

### Preventing Bribery and Corruption

The J-POWER Group prohibits bribes, illicit payments, and illegal political donations, as well as entertaining or giving gifts to public officials that conflict with the National Public Service Ethics Act or rules prescribed by government agencies. Also, the Company does not offer financial or other rewards to foreign government officials in return for illicit benefits or accommodations. The Group declared its anti-corruption stance when it joined the UN Global Compact in April 2021. It has since established policies against bribery and corruption in the international sector, strictly abstaining from actions that might be interpreted as collusion with politics and governments, and working to establish trustful and open relationships.



### Opinion Exchange Meetings with Directors

As part of a program to advance understanding of compliance based on communication, the J-POWER Group arranges annual opinion exchange meetings during which executives visit the headquarters and onsite institutions (including Group companies and overseas subsidiaries) to engage in direct conversations with employees. Although the themes of compliance and communication are the primary emphasis of the meetings, a variety of topics are covered each time, including compliance challenges not originally scheduled for the meeting. The Compliance Action Committee receives a report of these discussions.

Material issues ▶



### Disclosure

The Company has established the Disclosure Committee, chaired by the President, to enhance transparency and accountability in corporate activities. This committee ensures the fair and transparent disclosure of company information in a timely and proactive manner.

### Compliance with the Internal Control Reporting System

In response to the internal control reporting system for financial reporting required by Japan's Financial Instruments and Exchange Act, the J-POWER Group established, maintains, and evaluates its internal control system, mainly through the Accounting & Finance Department and Internal Audit Department.

In FY2023, continuing from the previous year, the Company's management evaluated the status of the development and operation of internal controls with respect to company-wide internal controls, operational process-related internal controls, and information technology-based internal controls in accordance with the implementation standards of Japan's Financial Services Agency. The Company determined that its internal control system for financial reporting is effective. This evaluation result was submitted as an Internal Control Report to the Director-General of the Kanto Finance Bureau in June 2024 following an audit carried out by the Company's Independent Auditor.

Going forward, the J-POWER Group will continue efforts to ensure the reliability of its financial reporting.

[P.79 Training and Education on Human Rights and Compliance Initiatives](#)



# Emergency Management

Material issues ▶



## Emergency Management Systems

As well as having a permanent emergency response team at J-POWER headquarters, when an emergency is anticipated or has occurred and emergency measures are necessary, we will organize Emergency Response Headquarters and Branches.

The Emergency Response Team anticipates emergencies, immediately takes first-response action in the case of any occurrence, and oversees emergency management operations. In the event of an emergency, the team coordinates with the Emergency Response Headquarters and Branches in each local area to accurately predict and prevent accidents such as disasters and facility incidents, and responds/manages promptly and appropriately should such events occur.

Furthermore, the Emergency Response Headquarters and branches in the J-POWER headquarters and local units annually carry out coordinated comprehensive disaster drills, and periodically conduct safety reporting drills for employees and Group company employees.

## Emergency Management Measures

The J-POWER Group has a responsibility as an electric utility company to ensure a stable supply of electricity, which plays an essential role in people's everyday lives. We need to prevent damage to the equipment that produces and transmits electric power and to restore service quickly should a disruption occur. Accordingly, the J-POWER Group implements the following measures.

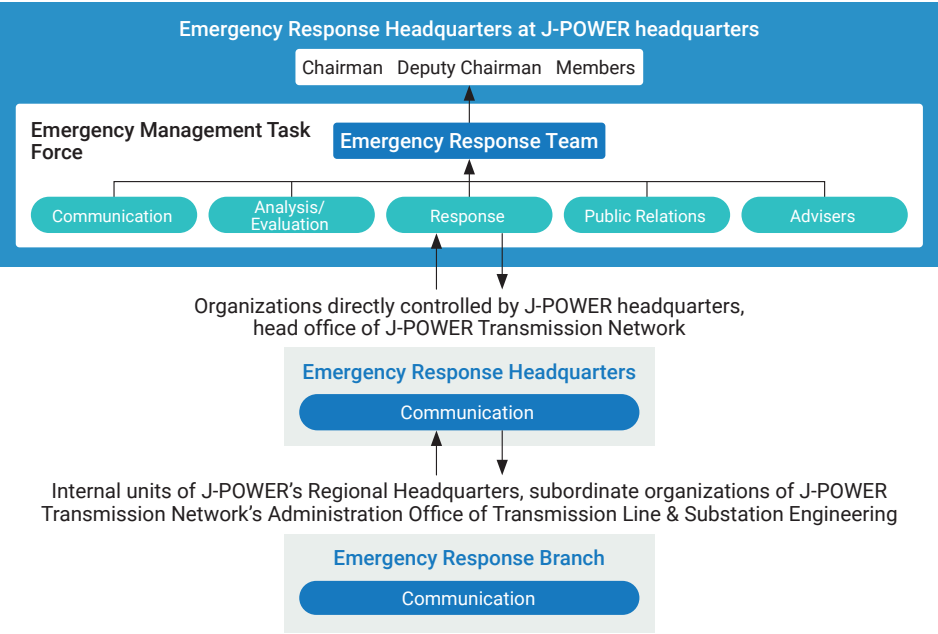
- ① Installation of appropriate facilities and development of disaster recovery systems in preparation for natural disasters, including earthquakes, typhoons, lightning strikes, and tsunamis
- ② Enhancement of security to prevent malicious and violent conduct
- ③ Enhancement of regular facility inspections to prevent major impediments to electric power supply and appropriate repairs and upgrades in response to aging, the decline of function, and breakdowns
- ④ Preparation of action plans for responding to pandemics and other events that could have a major impact on business operations

## Disaster Prevention and Business Continuity

As an electric utility company responsible for vital lifelines, the Company is a designated public institution under the Basic Act on Disaster Control Measures. Accordingly, the Company has established physical measures assuming a large-scale natural disaster as well as non-physical measures, such as various rules for when disasters occur and a systematic disaster preparedness structure from the headquarters to local units. By actively implementing these measures, the Company has reinforced its disaster preparedness structure to ensure the continuation of business even in the event of a natural disaster exceeding assumptions.

By conducting fully remote disaster drills, we have also established a disaster prevention system that does not depend on physical employee attendance.

### Emergency Response Headquarters Communication System



### Composition of the Emergency Response Headquarters at J-POWER headquarters

Organizations		Composition
Chairman	President	
Deputy Chairman	Vice President	
Members	The officer in charge of the General Affairs Department, Directors in Charge and related officers Director of the General Affairs Department, Director of Public Relations and related departments	
Emergency Management Task Force	Emergency Management Response Team and related departments	
(Composition of the Task Force)		(Division of duties)
Communication	Information communication, gathering, and management	
Analysis/Evaluation	Analysis, evaluation, and countermeasure planning	
Response	Information on recovery response, liaisons, victim response, consumer relations, and investor relations	
Public Relations	Media response	
Advisers	Advice regarding analysis, evaluation, and countermeasure planning	

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## Emergency Management

## Cybersecurity

## Basic Policies

In recent years, cyber-attacks have not only increased but have also become more sophisticated and elaborate. We apply technical steps based on the most recent information, such as computer virus countermeasures, unlawful access and information leakage countermeasures, as specified by the Basic Act on Cyber security for operators of vital infrastructure. We also comply with the Guidelines for Power Control System Security to ensure the security of power control systems and other systems for the stable supply of electric power.

Furthermore, based on The Cybersecurity Policy for Critical Infrastructure Protection announced by the government's Cybersecurity Strategic Headquarters on June 17, 2022, we have established a system to take all possible measures for cybersecurity as a critical infrastructure provider and are further strengthening our measures.

In March 2023, the J-POWER Group established its the Basic Policies on Cybersecurity and Cybersecurity Regulations, which span both information and control systems and strengthened its response capabilities throughout the supply chain.

## Incident Response

In order to respond to cyber-attacks and recover quickly in the event of any breach, we have established the J-POWER CSIRT\* as a cybersecurity crisis management system, working to prevent cybersecurity incidents and keep damage to a minimum should any incidents occur.

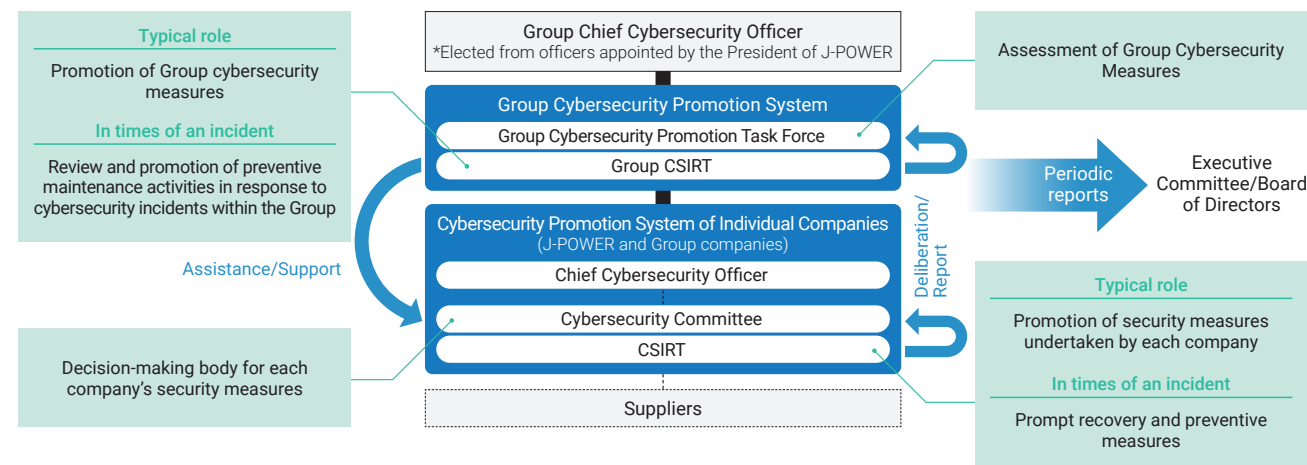
\* Cyber Security Incident Response Team (the letter C originally stood for Computer, but we refer to it as Cyber)

## Providing Information Security Educations

We have continuously provided all the employees with e-learning on cybersecurity and trainings to prepare for the targeted e-mail attacks.

## Results of e-learning for FY2023

We provided e-learning (three times in total) on case study of the targeted e-mail attacks, initial responses, security measures of control system, and prohibition of usage of personal portable storage medium (USB, etc.) (number of trainees was 17,925 in total)



Material issues ▶



## J-POWER Group's Basic Policies on Cybersecurity

We, the officers and employees of the J-POWER Group, have created the following fundamental policy for maintaining cybersecurity as a corporation with essential infrastructure that has the potential to significantly affect people's lives.

## 1 Identification as a management issue

From a high-level perspective of the entire supply chain, management should be aware of the dangers associated with cybersecurity, acknowledge them as a critical management concern, and assume responsibility for taking action while exercising leadership.

## 2 Compliance with laws, regulations and contractual requirements

We will comply with laws, regulations, codes, and contractual obligations as well as other societal norms related to cybersecurity.

## 3 Implementation of appropriate cybersecurity measures

We aim to establish a promotion system and organization to maintain and improve cybersecurity, and take human, technical, and physical measures, as well as identify new threat trends and promptly address them. In addition, we will strive to implement supply chain countermeasures including business partners, contractors and overseas.

## 4 Education and training initiatives

We will promote cybersecurity initiatives by acquiring the knowledge and skills necessary for cybersecurity and by participating in education and training.

## 5 Response to violations and incidents

In the event of a breach of cybersecurity laws and regulations, breach of contract, or an incident, we will take appropriate action to prevent recurrence.

## 6 Continuous improvement activities

Continuous improvement activities will be implemented through periodic evaluation and review of the above efforts.

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# Directors, Audit & Supervisory Committee Members, and Executive Officers

## Directors (Excluding Directors Serving as Audit & Supervisory Committee Members)



Representative Director Chairman  
**Toshifumi Watanabe**

Attendance at Board of Directors  
meetings 13/13  
Number of shares of the  
Company held 33,919 (4,719)

Current position  
Jun. 2023 Chairman and Representative Director

### Reason for appointment

Mr. Toshifumi Watanabe is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in planning, secretarial affairs & public relations, accounting & finance, personnel & employee relations, general affairs, siting & environment, and other departments since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Director; Executive Managing Director; Executive Vice President and Director; President and Director; Representative Director President and Chief Executive Officer; and Chairman. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Representative Director President  
**Hitoshi Kanno**

Attendance at Board of Directors  
meetings 13/13  
Number of shares of the  
Company held 24,116 (4,416)

Current position  
Jun. 2023 Representative Director President and Chief Executive Officer

### Reason for appointment

Mr. Hitoshi Kanno is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of planning, general affairs, siting & environment, sales, and accounting & finance since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Director and Executive Managing Officer; Director and Executive Vice President, and Representative Director President and Chief Executive Officer while also serving as Head of Energy Business Division and Vice Head of Nuclear Energy Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Representative Director  
**Yoshikazu Shimada**

Attendance at Board of Directors  
meetings 13/13  
Number of shares of the  
Company held 19,957 (3,337)

Current position  
Jun. 2023 Representative Director and Executive Vice President

### Reason for appointment

Mr. Yoshikazu Shimada is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of civil engineering, wind power business, international business, hydroelectric power engineering, and digital innovation since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Director and Executive Managing Officer, and Director and Executive Vice President while also serving as Head of Renewable Energy Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director  
**Osamu Hagiwara**

Attendance at Board of Directors  
meetings 11/13  
Number of shares of the  
Company held 14,554 (3,754)

Current position  
Jun. 2022 Director and Executive Vice President

### Reason for appointment

Mr. Osamu Hagiwara is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of planning and nuclear power since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Executive Managing Officer, and Director and Executive Vice President while also serving as Head of Nuclear Energy Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director  
**Hiroshi Sasatsu**

Attendance at Board of Directors  
meetings 13/13  
Number of shares of the  
Company held 13,337 (3,337)

Current position  
Apr. 2023 Director and Executive Vice President

### Reason for appointment

Mr. Hiroshi Sasatsu is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of thermal power maintenance, research & development, thermal power engineering, planning and international business since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Director and Executive Managing Officer, and Director and Executive Vice President. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director  
**Isshuu Kurata**

Attendance at Board of Directors  
meetings 10/10\*  
Number of shares of the  
Company held 12,698 (3,198)

Current position  
Jun. 2023 Director and Executive Vice President

### Reason for appointment

Mr. Isshuu Kurata is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of finance, business development, general affairs, nuclear power, and sales since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Executive Managing Officer, and Director and Executive Vice President while also serving as Deputy Head of Nuclear Energy Division and Head of Ohma Nuclear Power Plant, and Head of Energy Business Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director  
**Ryoji Sekine**

Attendance at Board of Directors  
meetings 10/10\*  
Number of shares of the  
Company held 10,181 (2,781)

Current position  
Jun. 2024 Director and Executive Vice President

### Reason for appointment

Mr. Ryoji Sekine is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of business development, planning, hydroelectric power maintenance, sales and international business since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Executive Officer, Executive Managing Officer, and Director and Executive Managing Officer while also serving as Deputy Head of Energy Business Division and Head of Global Power Business Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director  
**Takaya Nomura**

Attendance at Board of Directors  
meetings 13/13  
Number of shares of the  
Company held 10,682 (2,782)

Current position  
Jun. 2022 Director and Executive Managing Officer

### Reason for appointment

Mr. Takaya Nomura is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of international business, hydroelectric power maintenance and procurement since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Executive Officer, Executive Managing Officer, as well as Director and Executive Managing Officer while also serving as Deputy Head of Renewable Energy Division. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.

Note: The number of the Company's shares held by Directors includes the number of shares to be delivered to them after their retirement under the stock compensation plan, and the number of such shares is shown in parentheses.

\*Attendance at Board of Directors meetings and Audit & Supervisory Committee meetings refers to meetings held after taking up position on June 28, 2023.

# Directors, Audit & Supervisory Committee Members, and Executive Officers

## Directors (Excluding Directors Serving as Audit & Supervisory Committee Members)



Director **New Appointment**

**Hideaki Kato**

Attendance at Board of Directors meetings —  
Number of shares of the Company held 5,682 (2,782)

Current position  
Jun. 2023 Director and Executive Managing Officer

### Reason for appointment

Mr. Hideaki Kato is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of secretarial affairs, planning, nuclear power, accounting & finance, general affairs, and procurement since joining the Company, and has highly specialized expertise. In addition, he is highly experienced in business execution through his service as Executive Officer and Executive Managing Officer. For this position, he possesses distinguished knowledge and capability of addressing various management issues sought in a Director.



Director **Outside Independent**

**Tomonori Ito**

Attendance at Board of Directors meetings 10/13  
Number of shares of the Company held 2,100

Current position  
Jun. 2016 Outside Director of the Company  
Sep. 2021 Professor at Institute for Business and Finance, Waseda Business School (Graduate School of Business and Finance)  
Apr. 2022 Lecture at International Academic Research Institute, Kyoto University of Advanced Science  
Jun. 2022 Outside Director of Mitsui Sumitomo Insurance Company, Limited  
Jun. 2023 Outside Director of Sumitomo Mitsui Trust Holdings, Inc.

### Reason for appointment

Mr. Tomonori Ito has abundant experience in investment banking business both inside and outside Japan, distinguished knowledge and capability of addressing various management issues acquired through research in financial theory while serving as a professor of Department of International Corporate Strategy, Graduate School of Business Administration and has also played appropriate roles to date as Outside Director of the Company. The Company therefore believes that he is qualified to serve as an Outside Director as he is expected to contribute to enhancing the supervisory function of business execution and provide advice from a wide range of perspectives.



Director **Outside Independent**

**John Buchanan**

Attendance at Board of Directors meetings 13/13  
Number of shares of the Company held 0

Current position  
Aug. 2006 Research Associate of Centre for Business Research, University of Cambridge  
Jun. 2016 Outside Director of the Company

### Reason for appointment

Mr. John Buchanan has abundant experience in investment advisory business both inside and outside Japan, distinguished knowledge and capability of addressing various management issues acquired through researches concerning corporate governance at University of Cambridge, and has also played appropriate roles to date as Outside Director of the Company. The Company therefore believes that he is qualified to serve as an Outside Director as he is expected to contribute to enhancing the supervisory function of business execution and provide advice from a wide range of perspectives.



Director **Outside Independent**

**Takashi Yokomizo**

Attendance at Board of Directors meetings 10/10\*  
Number of shares of the Company held 0

Current position  
Apr. 2008 Partner Lawyer at Sunrise Law Office  
Jun. 2023 Outside Director of the Company

### Reason for appointment

Mr. Takashi Yokomizo has abundant experience in the legal profession, distinguished knowledge and capability of addressing various management issues as an attorney at law and has also played appropriate roles to date as Outside Director of the Company. The Company therefore believes that he is qualified to serve as an Outside Director as he is expected to contribute to enhancing the supervisory function over business execution and provide advice from a wide range of perspectives.

## Directors Serving as Audit & Supervisory Committee Members



Director (Audit & Supervisory Committee Member) **New Appointment**

**Hideo Kimura**

Attendance at Board of Directors meetings —  
Attendance at Audit & Supervisory Committee meetings —  
Number of shares of the Company held 8,800

Current position  
Jun. 2024 Director (Audit & Supervisory Committee Member) of the Company

### Reason for appointment

Mr. Hideo Kimura is well-versed in overall business operations of the Company with abundant business experience he acquired through his assignments in the departments of planning, accounting & finance, and personnel & employee relations since joining the Company, and has highly specialized expertise. In addition, he served as a Director of Personnel & Employee Relations Department, Executive Officer, executive of Group company, and Audit & Supervisory Executive Officer. For this reason, the Company has judged that we can expect him to utilize his distinguished knowledge and observe the Company's management thoroughly, which are sought in a Director serving as Audit & Supervisory Committee Member.



Director (Audit & Supervisory Committee Member) **Outside Independent**

**Hiroshi Fujioka**

Attendance at Board of Directors meetings 13/13  
Attendance at Audit & Supervisory Committee meetings 12/12  
Number of shares of the Company held 0

Current position  
Jun. 2022 Outside Director (Audit & Supervisory Committee Member) of the Company  
Jun. 2024 Outside Director (Audit and Supervisory Committee Member), Nishi-Nippon Financial Holdings, Inc.

### Reason for appointment

Mr. Hiroshi Fujioka has long had abundant experience and distinguished knowledge in administrative practices, including at the Ministry of Finance, and has fulfilled his appropriate role as an Outside Director as a member of the Audit & Supervisory Committee. As such, he is expected to provide stronger management oversight and is therefore deemed to be qualified to serve as Outside Director as a member of the Audit & Supervisory Committee. Although he has no experience in corporate management except as outside director or outside auditor, he is deemed to be an appropriate candidate for the position of Outside Director as a member of the Audit & Supervisory Committee due to the reasons mentioned above.



Director (Audit & Supervisory Committee Member) **Outside Independent**

**Kimiko Oga**

Attendance at Board of Directors meetings 13/13  
Attendance at Audit & Supervisory Committee meetings 12/12  
Number of shares of the Company held 0

Current position  
Jun. 2019 Outside Director, SKY Perfect JSAT Holdings Inc.  
Mar. 2020 Outside Director (Audit & Supervisory Committee Member), BroadBand Tower, Inc.  
Jun. 2022 Outside Director (Audit & Supervisory Committee Member) of the Company

### Reason for appointment

Ms. Kimiko Oga has abundant experience in the information and communications industry, as well as distinguished knowledge as a corporate manager, and has fulfilled her appropriate role as Outside Director as a member of the Audit & Supervisory Committee. As such, she is expected to provide stronger management oversight and is therefore deemed to be qualified to serve as Outside Director as a member of the Audit & Supervisory Committee.



Director (Audit & Supervisory Committee Member) **New Appointment Outside Independent**

**Shizuo Abe**

Attendance at Board of Directors meetings —  
Attendance at Audit & Supervisory Committee meetings —  
Number of shares of the Company held 0

Current position  
Jun. 2024 Outside Director (Audit & Supervisory Committee Member) of the Company

### Reason for appointment

Mr. Shizuo Abe has abundant experience in the automobile industry, as well as distinguished knowledge as a corporate manager. As such, he is expected to provide stronger management oversight and is therefore deemed to be qualified to serve as Outside Director as a member of the Audit & Supervisory Committee.

Note: The number of the Company's shares held by Directors includes the number of shares to be delivered to them after their retirement under the stock compensation plan, and the number of such shares is shown in parentheses.  
\*Refers to the attendance at Board of Directors meetings held after taking up position on June 28, 2023.



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# Directors, Audit & Supervisory Committee Members, and Executive Officers

## Skill Matrix

The roles and obligations of the Board of Directors indicated in Article 18 of the Basic Policy on Corporate Governance are as follows:

- i) Setting the broad direction of management plans, etc.
- ii) Establishing an environment that supports risk-taking by the management
- iii) Carrying out effective supervision of the management from an independent and objective standpoint

Skill sets are selected based on these roles and obligations as the skills required to achieve the five material issues.

With the appointment of Directors approved at the 72nd Ordinary General Meeting of Shareholders, we revised some of the skills in the Skill Matrix, changing the former “Human resources strategy” to “Human resources strategy and Diversity” and adding “Sustainability.”

\*For details of the Directors, please refer to Proposal 2 of the Notice of the 72nd Ordinary General Meeting of Shareholders, June 26, 2024.

## Directors (Excluding Directors Serving as Audit & Supervisory Committee Members)

	Name	Corporate management and management strategy	Financial strategy and accounting	Legal affairs, risk management and governance	Human resources strategy and diversity	Sustainability	DX and innovation	Sales	Engineering and R&D	Business and project development	Production technology and quality control	International and global business	Reference
Chairman	Toshifumi Watanabe	○	○	○	○	○		○					Nomination and Compensation Committee member
President and Director	Hitoshi Kanno	○	○	○	○	○	○	○		○			Nomination and Compensation Committee member
Directors	Yoshikazu Shimada					○	○		○	○	○		Head of Renewable Energy Division
	Osamu Hagiwara					○			○	○	○		Head of Nuclear Energy Division
	Hiroshi Sasatsu					○			○	○	○	○	
	Isshuu Kurata	○	○	○	○	○		○		○			Head of Energy Business Division
	Ryoji Sekine	○	○			○		○		○		○	Head of Global Power Business Division
	Takaya Nomura					○	○		○	○	○	○	
	Hideaki Kato	○	○	○		○	○			○			
	Tomonori Ito	○	○	○	○							○	Nomination and Compensation Committee member
	John Buchanan	○	○	○	○	○						○	
	Takashi Yokomizo			○	○								Chairperson of Nomination and Compensation Committee

## Directors Serving as Audit & Supervisory Committee Members

	Name	Corporate management and management strategy	Financial strategy and accounting	Legal affairs, risk management and governance	Human resources strategy and diversity	Sustainability	DX innovation	Sales	Engineering and R&D	Business and project development	Production technology and quality control	International business and global	Reference
Audit & Supervisory Committee members	Hideo Kimura	○	○		○					○			Nomination and Compensation Committee member
	Hiroshi Fujioka		○	○	○								
	Kimiko Oga	○			○	○	○	○					
	Shizuo Abe	○				○	○		○		○		

## Executive officer system (June 26, 2024)

Position	Name		
President and Chief Executive Officer	Hitoshi Kanno	ESG oversight	
Executive Vice President	Yoshikazu Shimada	General operations and technological management Head of Renewable Energy Division (delegation of administrative works) Labor & Plant Safety Management Dept., Civil & Architectural Engineering Dept.	
	Osamu Hagiwara	General operations Head of Nuclear Energy Division (delegation of administrative works)	
	Hiroshi Sasatsu	General operations Thermal Energy & Value Creation Dept., Research & Development Dept. International Business and Hydrogen/CCS Business Development (matters under special assignment)	
	Isshuu Kurata	General operations Head of Energy Business Division (delegation of administrative works), Vice Head of Nuclear Energy Division (delegation of administrative works) Accounting & Finance Dept., General Affairs Dept., Siting & Environment Dept., Procurement Dept.	
	Ryoji Sekine	General operations Head of Global Power Business Division (delegation of administrative works) Hydrogen/CCS Business Development (matters under special assignment)	
Executive Managing Officer	Takaya Nomura Shoichi Echigo Tetsuaki Mori Atsushi Sudo	Hideaki Kato Takashi Jahana Koji Shirato	Takashi Fujita Jun Harada Kazuo Kato
Executive Officer Status	Katsunori Hoshi Yukihiro Ikeguchi	Toshiya Sato Akira Takano	Kenji Morita
Executive Officer	Shinsuke Suzuki Toshiya Kawai Shigeru Morimoto Takenori Iwasaki Fumihiko Saito Toshihiro Ikeda	Sumie Nakayama Kaoru Koga Kenjiro Hokamura Masuhide Inoue Masuo Shibayama Shigeyuki Ishikura	Yasushi Akahoshi Shingo Koizumi Takeshi Misumi Akira Yabumoto Tatsuya Ishii
Audit & Supervisory Executive Officer	Tatsuhiko Tanaka		

# 6-Year Financial Data

Our website presents data on performance trends and financial information in the form of graphs and charts.

 <https://www.jpowers.co.jp/english/ir/financial/>

(Millions of yen)						
Consolidated: Operating Revenue/Expenses Comparison	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Operating Revenue (Net Sales)	897,366	913,775	909,144	1,084,621	1,841,922	1,257,998
Operating Profit	78,844	83,638	77,775	86,979	183,867	105,704
Ordinary Profit	68,539	78,085	60,903	72,846	170,792	118,535
Profit Attributable to Owners of Parent	46,252	42,277	22,304	69,687	113,689	77,774

(Million kWh)						
Consolidated: Electricity Sales Volume	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Electric Power Business	69,356	73,131	74,558	74,792	68,467	60,371
Hydroelectric	9,709	9,196	8,905	9,291	8,888	9,015
Thermal	54,946	52,053	52,140	47,994	45,673	38,533
Wind	815	865	1,211	1,190	1,047	1,149
Other*1	3,886	11,016	12,301	16,316	12,857	11,673
Overseas Business*2	10,927	15,640	11,097	11,061	14,271	19,854
Domestic Hydroelectric: Water Supply Rate	106%	101%	96%	99%	94%	96%
Domestic Thermal: Load Factor (non-consolidated)	79%	77%	75%	67%	65%	55%

\*1 Electric power sales volume of electricity procured from wholesale electricity market, etc.    \*2 Electric power sales volume of overseas consolidated subsidiaries (Electric power sales volume of equity method affiliates is not included.)

(Millions of yen)						
Consolidated: Balance Sheet Items	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Total Assets	2,766,179	2,805,390	2,841,960	3,066,176	3,362,685	3,475,749
Total Liabilities	1,920,597	1,948,003	1,988,274	2,102,071	2,169,942	2,142,670
Total Net Assets	845,582	857,387	853,685	964,105	1,192,743	1,333,078

(Millions of yen)						
Consolidated: Cash Flow Items	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Net Cash Provided by (Used in) Operating Activities	148,423	159,245	167,959	128,380	155,832	254,021
Net Cash Provided by (Used in) Investing Activities	(170,432)	(161,711)	(143,274)	(178,846)	(150,839)	(161,954)
Free Cash Flow	(22,008)	(2,466)	24,684	(50,466)	4,993	92,066

Consolidated: Financial Indicators	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Return on Assets (ROA)	2.5%	2.8%	2.2%	2.5%	5.3%	3.5%
ROA (after excluding construction in progress from tangible fixed assets)	3.2%	3.6%	2.8%	3.1%	6.6%	4.2%
Return on Equity (ROE)	5.8%	5.3%	2.8%	8.1%	11.4%	6.8%
Net Income per Share (EPS) (Yen)	252.68	230.96	121.85	380.70	621.50	425.31
Net Assets per Share (BPS) (Yen)	4,356.54	4,412.84	4,420.39	5,004.31	5,931.68	6,649.11
Equity Ratio	28.8%	28.8%	28.5%	29.9%	32.3%	35.0%
Debt-Equity Ratio	2.1	2.0	2.1	2.0	1.7	1.5
Number of Common Shares Issued at the End of the Period (excluding treasury stock) (Thousands)	183,048	183,048	183,048	183,048	183,048	183,048

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6-Year Financial Data

	(Millions of yen)					
Non-Consolidated: Operating Revenue/Expenses	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Operating Revenue (Net Sales)	646,958	571,291	589,915	790,055	1,370,724	843,229
Electric Power Business	633,617	563,813	583,812	781,056	1,353,379	835,924
Electric Power Cost	—	—	—	606	1,168	253
Sold Power to Other Suppliers	580,652	510,429	566,068	767,205	1,337,307	821,456
Other*3	52,964	53,383	17,744	13,245	14,904	14,213
Incidental Business Operating Expenses	13,340	7,478	6,102	8,998	17,344	7,304
Operating Expenses	628,279	546,405	512,060	772,155	1,324,162	838,086
Electric Power Business	615,712	539,708	506,536	763,745	1,307,562	831,527
Personnel Expenses	32,494	35,861	31,875	20,136	20,621	25,019
Fuel Cost	289,024	233,234	193,776	298,588	762,152	422,879
Repair Expenses	69,715	66,652	44,133	51,540	41,937	40,971
Consignment Cost	41,951	42,578	47,182	51,961	51,389	49,901
Depreciation and Amortization	51,050	52,702	55,277	55,930	58,963	59,541
Other	131,475	108,678	134,290	285,588	372,497	233,216
Incidental Business Operating Expenses	12,567	6,697	5,524	8,410	16,600	6,558
Operating Profit	18,678	24,886	77,854	17,899	46,561	5,142

\*3 Transmission revenue and miscellaneous Electric Power Business revenue; due to the split-off of the Power Transmission Business in April 2020, only miscellaneous Electric Power Business revenue will be recorded from FY2020 onward.

Segment Information	(Millions of yen)	
Sales to External Customers	2019/3	2020/3
Electric Power Business	693,790	684,155
Electric Power-Related Business	35,518	31,988
Overseas Business	141,024	179,094
Other Business	27,032	18,537
Consolidated	897,366	913,775

Ordinary Profit		
Electric Power Business	14,995	27,466
Electric Power-Related Business	26,468	18,507
Overseas Business	29,284	33,965
Other Business	1,388	569
Adjustments	(3,597)	(2,423)
Consolidated	68,539	78,085

Assets		
Electric Power Business	2,006,157	2,040,598
Electric Power-Related Business	275,549	244,503
Overseas Business	657,109	680,942
Other Business	18,244	15,627
Adjustments	(190,881)	(176,281)
Consolidated	2,766,179	2,805,390

\*Classification of reportable segment has been changed from the fiscal year ending March 31, 2025. 6-year financial data has been stated retrospectively possible using the new reportable segments.

	(Millions of yen)			
Sales to External Customers	2021/3	2022/3	2023/3	2024/3
Power Generation Business	685,476	832,789	1,372,398	855,652
Transmission and Transformation Business	50,050	49,167	49,940	48,928
Electric Power-Related Business	20,560	39,134	114,767	77,879
Overseas Business	138,087	145,106	277,555	259,264
Other Business	14,970	18,424	27,260	16,273
Consolidated	909,144	1,084,621	1,841,922	1,257,998

Ordinary Profit				
Power Generation Business	16,013	27,487	54,191	20,374
Transmission and Transformation Business	8,964	6,392	5,643	7,306
Electric Power-Related Business	4,437	17,238	86,795	47,174
Overseas Business	30,883	22,017	22,692	44,305
Other Business	1,049	1,234	1,805	160
Adjustments	(445)	(1,524)	(335)	(787)
Consolidated	60,903	72,846	170,792	118,535

Assets				
Power Generation Business	2,029,254	2,136,406	2,226,579	2,284,521
Transmission and Transformation Business	267,684	246,618	249,961	259,013
Electric Power-Related Business	126,152	133,999	195,306	219,708
Overseas Business	679,139	773,056	918,222	947,012
Other Business	17,640	18,470	16,640	15,006
Adjustments	(277,910)	(242,375)	(244,026)	(249,514)
Consolidated	2,841,960	3,066,176	3,362,685	3,475,749

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# Consolidated Financial Statements

## Consolidated Balance Sheet

(Millions of yen)

### Assets

	2023/3	2024/3
Non-Current Assets	2,701,385	2,785,494
Electric Utility Plant and Equipment	1,065,522	1,092,687
Hydroelectric Power Production Facilities	374,454	378,572
Thermal Power Production Facilities	379,750	364,877
Renewable Power Production Facilities	77,783	—
Renewable Power Production and Other Facilities	—	118,762
Transmission Facilities	140,248	136,104
Transformation Facilities	32,954	33,506
Communication Facilities	6,303	6,523
General Facilities	54,028	54,340
Overseas Business Facilities	447,201	463,421
Other Non-Current Assets	89,219	89,664
Construction in Progress	572,165	576,118
Construction in Progress	572,165	576,118
Nuclear Fuel	76,226	77,101
Nuclear Fuel in Processing	76,226	77,101
Investments and Other Assets	451,048	486,501
Long-Term Investments	371,914	410,175
Net Defined Benefit Asset	1,473	18,157
Deferred Tax Assets	56,896	41,709
Other	20,867	16,545
Allowance for Doubtful Accounts	(102)	(87)
Current Assets	661,300	690,254
Cash and Deposits	342,018	278,814
Notes and Accounts Receivable—Trade and Contract Assets	129,901	98,119
Short-Term Investments	3,281	153,146
Inventories	110,315	80,059
Other	75,786	80,118
Allowance for Doubtful Accounts	(3)	(3)
Total Assets	3,362,685	3,475,749

(Millions of yen)

### Liabilities

Non-Current Liabilities	1,797,923	1,793,412
Bonds Payable	774,085	729,086
Long-Term Loans Payable	893,363	932,304
Lease Obligations	1,695	1,210
Other Provisions	11	26
Net Defined Benefit Liability	33,301	31,707
Asset Retirement Obligations	34,087	34,465
Deferred Tax Liabilities	25,098	27,677
Other	36,279	36,934
Current Liabilities	372,019	349,257
Current Portion of Non-Current Liabilities	207,374	196,448
Short-Term Loans Payable	10,715	8,031
Notes and Accounts Payable—Trade	53,774	52,379
Accrued Taxes	27,884	27,745
Other Provisions	698	646
Asset Retirement Obligations	476	528
Others	71,096	63,478
Total Liabilities	2,169,942	2,142,670

### Net Assets

Shareholders' Equity	977,800	1,038,201
Capital Stock	180,502	180,502
Capital Surplus	128,178	128,178
Retained Earnings	669,498	729,883
Treasury Shares	(378)	(362)
Accumulated Other Comprehensive Income	106,878	177,720
Valuation Difference on Available-for-Sale Securities	14,372	26,855
Deferred Gains or Losses on Hedges	7,948	15,434
Foreign Currency Translation Adjustment	78,928	119,358
Remeasurements of Defined Benefit Plans	5,629	16,072
Non-Controlling Interests	108,064	117,156
Total Net Assets	1,192,743	1,333,078
Total Liabilities and Net Assets	3,362,685	3,475,749



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Consolidated Statement of Income	(Millions of yen)	
	2023/3	2024/3
Operating Revenue (Net Sales)	1,841,922	1,257,998
Electric Utility Operating Revenue	1,417,902	899,476
Overseas Business Operating Revenue	277,555	259,264
Other Business Operating Revenue	146,464	99,256
Operating Expenses	1,658,055	1,152,293
Electric Utility Operating Expenses	1,340,611	861,021
Overseas Business Operating Expenses	248,592	226,756
Other Business Operating Expenses	68,850	64,515
Operating Profit	183,867	105,704
Non-Operating Income	24,764	49,518
Dividends Income	1,927	1,866
Interest Income	3,472	7,447
Share of Profit of Entities Accounted for Using Equity Method	9,128	24,550
Other	10,235	15,654
Non-Operating Expenses	37,839	36,687
Interest Expenses	27,368	30,937
Other	10,470	5,749
Total Ordinary Revenue	1,866,686	1,307,516
Total Ordinary Expenses	1,695,894	1,188,981
Ordinary Profit	170,792	118,535
Profit before Income Taxes	170,792	118,535
Income Taxes—Current	37,935	27,393
Income Taxes—Deferred	13,864	6,446
Total Income Taxes	51,799	33,839
Profit	118,993	84,695
Profit Attributable to Non-Controlling Interests	5,303	6,920
Profit Attributable to Owners of Parent	113,689	77,774

Note: Under each item, there are cases of fiscal years in which the monetary importance has been minor being included and represented under another item.

Consolidated Statement of Cash Flows	(Millions of yen)	
	2023/3	2024/3
Cash Flows from Operating Activities		
Profit before Income Taxes	170,792	118,535
Depreciation and Amortization	107,642	110,313
Loss on Retirement of Non-Current Assets	6,821	2,751
Increase (Decrease) in Net Defined Benefit Liability	(9,685)	(3,352)
Interest and Dividend Income	(5,400)	(9,313)
Interest Expenses	27,368	30,937
Decrease (Increase) in Notes and Accounts Receivable—Trade	(47,335)	37,012
Decrease (Increase) in Inventories	(44,357)	31,360
Increase (Decrease) in Notes and Accounts Payable—Trade	18,316	(13,524)
Share of (Profit) Loss of Entities Accounted for Using Equity Method	(9,128)	(24,550)
Other, Net	(30,306)	1,067
Subtotal	184,727	281,237
Interest and Dividend Income Received	18,989	39,868
Interest Expenses Paid	(26,220)	(34,294)
Income Taxes Paid	(21,663)	(32,790)
Net Cash Provided by (Used in) Operating Activities	155,832	254,021
Cash Flows from Investing Activities		
Purchase of Non-Current Assets	(144,862)	(115,840)
Proceeds from Sales of Non-Current Assets	5,008	5,842
Payments of Investments and Loans Receivable	(7,828)	(9,357)
Collections of Investments and Receivable	3,140	7,619
Proceeds from Sales of Investments in Subsidiaries Resulting in Change in Scope of Consolidation	156	—
Net decrease (increase) in time deposits	(6,880)	(50,196)
Other, Net	425	(21)
Net Cash Provided by (Used in) Investing Activities	(150,839)	(161,954)
Cash Flows from Financing Activities		
Proceeds from Issuance of Bonds	137,192	44,840
Redemption of Bonds	(20,000)	(70,000)
Proceeds from Long-Term Loans Payable	157,684	129,276
Repayment of Long-Term Loans Payable	(126,468)	(144,381)
Increase in Short-Term Loans Payable	122,626	33,363
Decrease in Short-Term Loans Payable	(120,061)	(36,176)
Proceeds from Issuance of Commercial Paper	219,999	—
Redemption of Commercial Paper	(310,000)	—
Proceeds from Sales of Investments in Subsidiaries without Change in Scope of Consolidation	55,821	—
Cash Dividends Paid	(14,647)	(17,386)
Dividends Paid to Non-Controlling Interests	(4,673)	(4,064)
Other, Net	(1,453)	(1,335)
Net Cash Provided by (Used in) Financing Activities	96,021	(65,864)
Effect of Exchange Rate Change on Cash and Cash Equivalents	10,729	10,167
Net Increase (Decrease) in Cash and Cash Equivalents	111,743	36,368
Cash and Cash Equivalents at Beginning of the Period	222,551	334,294
Cash and Cash Equivalents at the End of the Period	334,294	370,663

Note: Under each item, there are cases of fiscal years in which the monetary importance has been minor being included and represented under another item.



Financial Information

- Securities Report
- Financial Statements
- Earnings Results Presentation

Non-financial Information (ESG)

- Basic Policy on Sustainability
- Basic Policy on Corporate Governance
- Compliance Action Guidelines
- J-POWER Group Environmental Basic Policy
- J-POWER Group Basic Policy on Human Rights
- Corporate Governance Report
- J-POWER Group Integrated Report 2024  
Supplementary Material:<Environment>
- J-POWER Group Integrated Report 2024  
Supplementary Material:<Social>
- J-POWER Group Integrated Report 2024  
Supplementary Material:< Governance>

# ESG Data

## ESG Data

### Environment

Environmental impact data marked with ★ are reviewed by Ernst & Young ShinNihon LLC and we received the Independent Assurance Report. For the standards and scope of the calculations, please refer to p. 111–112.

#### Environmental Impact Data for Domestic Operations

	Unit	FY2021	FY2022	FY2023★
Power generation volume				
Power generation volume	billion kWh	62.3	59.6	52.6
Electricity sales volume	billion kWh	57.6	54.8	47.9
Energy consumed				
Coal [Dry coal: 28 GJ/t equivalent] (usage intensity)	million tons (t/million kWh)	15.65 (3.34)	15.14 (3.37)	12.76 (3.39)
Natural gas	million Nm³	44	0	0
Heavy oil	thousand kl	37	25	24
Light oil	thousand kl	28	24	29
Biomass	thousand tons	32	122	129
Purchased electric power	billion kWh	0.118	0.098	0.132
Water resources				
Industrial use water	million m³	8.50	9.29	8.40
Volume of water used	million m³	0.30	0.27	0.27
Volume of water discharged	million m³	4.91	4.43	3.47
Waste				
Volume generated (effective utilization rate)	million tons (%)	1.98 (98%)	1.95 (96%)	1.53 (95%)
Of which is coal ash (effective utilization rate)	million tons (%)	1.65 (98%)	1.64 (96%)	1.27 (95%)
Of which is gypsum (effective utilization rate)	million tons (%)	0.27 (97%)	0.28 (100%)	0.22 (100%)
Amount of industrial waste disposed	thousand tons	46	75	79
Of which is specially-controlled	thousand tons	0.7	0.3	0.5
General waste disposal volume (used paper)	t	20	18	31
Emissions into the atmosphere				
NOx emissions (emission intensity)	thousand (t g/kWh)	23.0 (0.46)	23.0 (0.48)	18.8 (0.47)
SOx emissions (emission intensity)	thousand (t g/kWh)	10.5 (0.21)	9.3 (0.19)	7.5 (0.19)
Dust emissions (emission intensity)	thousand (t g/kWh)	0.5 (0.01)	0.7 (0.01)	0.5 (0.01)
N₂O	t-CO₂e	160,000	90,000	80,000
SF₆	t-CO₂e	8,300	3,200	22,000

\*Coal intensity is the amount of coal consumed divided by the electricity sales volume of thermal power plants.  
\*The basic unit for NOx, SOx, and soot and dust is calculated based on the amount of electricity generated at thermal power plants, which are the source of emissions.  
\*For N₂O and SF₆, we have revised the emission coefficient, global warming coefficient and emission activities covered by the accounting and reporting system from the FY2023 data, in response to the revision to the ministerial ordinance on GHG emission calculation based on the Act on Promotion of Global Warming Countermeasures.

#### Greenhouse Gas Emissions\*1, 2

	Unit	FY2021	FY2022	FY2023★
Scope 1	(million t-CO₂)	47.95	48.91	44.39
Domestic power generation business		41.62	40.64	33.68
Overseas power generation business		4.9	7.94	10.27
Other		1.42	0.33	0.43
Scope 2 (Location criteria)		0.14	0.15	0.14
Scope 2 (Market criteria)		–	0.15	0.14
Scope 3		13.60	13.17	13.31
(1) Purchased goods and services		0.31	0.27	0.26
(2) Capital goods		0.44	0.40	0.40
(3) Fuel and energy-related activities not included in Scope 1 and 2		3.84	4.43	3.76
(5) Waste generated in operations		0.08	0.10	0.09
(6) Business travels		0.001	0.001	0.001
(7) Employee commuting		0.002	0.002	0.002
(9) Down-stream transportation and distribution		1.02	0.15	0.16
(11) Use of sold products		6.21	6.37	7.01
(15) Investments		1.69	1.45	1.64
Total		61.68	62.23	57.84

#### Electricity Sales Volume per Unit of CO₂ Emissions

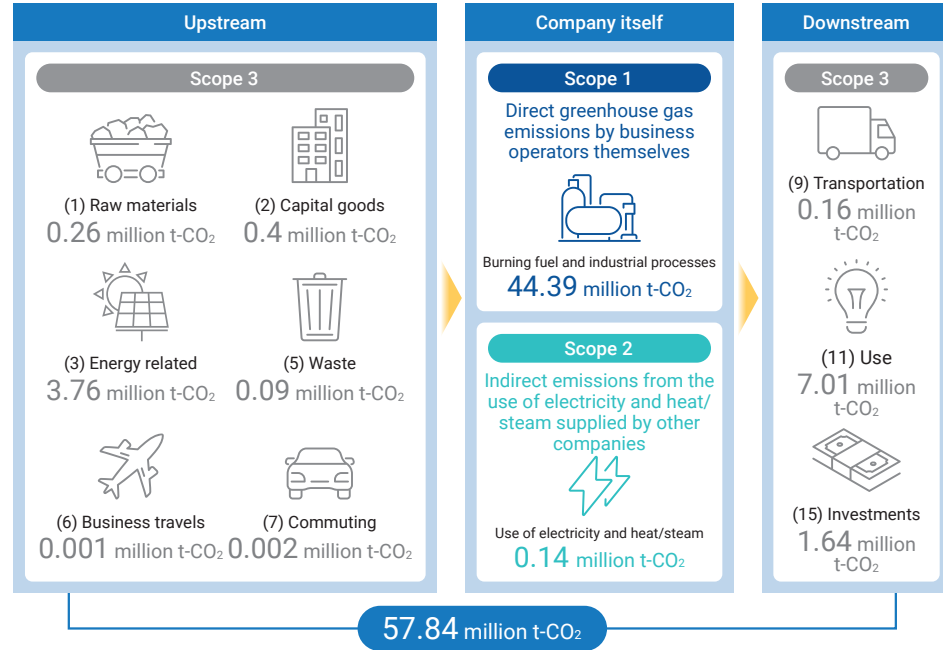
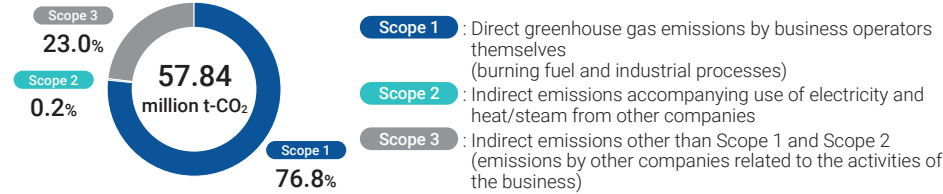
	Unit	FY2021	FY2022	FY2023★
Domestic and overseas power generation business	kg-CO₂/kWh	0.64	0.64	0.61
Domestic power generation business		0.70	0.71	0.67

\*1 The scope of coverage includes J-POWER and its consolidated subsidiaries and equity-method affiliates in the Electric Power Business and Oversea Business. Consolidated subsidiaries and equity-method affiliates are aggregated for the portion equivalent to J-POWER's equity stake.  
\*2 Due to the nature of the products and services sold and the nature of the business, there is no energy consumption in the following categories.  
(4) Transportation and distribution (upstream), (8) Leased assets (upstream), (10) Processing of sold products  
(12) Disposal of sold products, (13) Leased assets (downstream), (14) Franchise

## ESG Data

### ESG Data

#### FY2023 Greenhouse Gas Emission Results



#### Calculation Methods in Each Scope 3 Category

- Calculated by multiplying each product or service purchased by respective emission factor
- Calculated by multiplying the capital investment by the emission intensity
- Sum of the following two values
  - Emissions from production and transportation of fuel used by the company
  - Calculated by multiplying the amount of electricity procured from sources other than the company by the emission intensity
- Calculated by multiplying the amount of emissions by waste type by the emission intensity of each treatment method
- Calculated by multiplying the number of employees by the emission intensity
- Calculated by multiplying the number of employees and number of business days by type of work and by rank of employee, respectively, by the emission intensity
- Calculated by multiplying the ton-kilometers of sold coal transported by the emission intensity
- Calculated by multiplying the volume of coal sold by the emission intensity
- CO<sub>2</sub> emissions from power plants in which J-POWER's equity portion is less than 20%

#### Scope of the Calculations of Environmental Impact Data

□ Scope of the calculations of GHG emissions □ Scope of reporting environmental impact data

##### Domestic Business

Electric Power Business (Transmission)	
J-POWER Transmission Network Co., Ltd.	100 %
Electric Power-Related Business	
J-POWER HYTEC Co., Ltd.	100 %
J-POWER Generation Service Co., Ltd.	100 %
J-POWER Business Service Corporation	100 %
J-POWER Telecommunication Service Co., Ltd.	100 %
J-POWER Design Co., Ltd.	100 %
J-POWER Insurance Service Corporation	(100 %)
J-POWER EnTech Inc.	100 %
JM Activated Coke, Inc.	90 %
J-Wind Service Co., Ltd.	100 %
Miyazaki Wood Pellet Co., Ltd.	98.33 %
Other business	
Kaihatsu Hiryou Co., Ltd.	100 %
Omuta Plant Service Co., Ltd.*1	100 %
Biocoal Osaka-Hirano Co., Ltd.	60 %
Green Coal Saikai Co., Ltd.	60 %
Biocoal Yokohama-South Co., Ltd.	60 %
Electric Power Business (Power generation)	
Electric Power Development Co., Ltd.	—
J-Wind Co., Ltd.	100 %
J-Wind KUZUMAKI Co., Ltd.	100 %
Nagasaki-Shikamachi Wind Power Co., Ltd.	70 %
J-Wind SETANA Co., Ltd.	100 %
Esashi Green Energy Co., Ltd.	70 %
Ishikari Green Energy Co., Ltd.*2	70 %
TOSA POWER Inc.	45 %
Kashima Power Co., Ltd.	50 %
Yuzawa Geothermal Power Generation Corporation	50 %
Appi Geothermal Energy Corporation*3	15 %

\*1 Omuta Plant Service Co., Ltd. was liquidated in February 2024.

\*2 Ishikari Green Energy Co., Ltd. started operation in March 2024.

\*3 Appi Geothermal Energy Corporation started operation in March 2024.

\*4 Lake Mainit Hydro Holdings Corporation started operation in March 2023.

\*5 Jackson Generation, LLC's ownership of voting rights decreased to 51% due to the partial transfer of its interest on February 27, 2023.

\*6 China Resources Power (Hezhou) Co., Ltd. was sold on March 28, 2024.

##### Overseas Business

Thailand	
Gulf JP UT Co., Ltd.	(60 %)
Gulf JP NS Co., Ltd.	(60 %)
Gulf JP NNK Co., Ltd.	(60 %)
Gulf JP CRN Co., Ltd.	(60 %)
Gulf JP NK2 Co., Ltd.	(60 %)
Gulf JP TLC Co., Ltd.	(60 %)
Gulf JP KP1 Co., Ltd.	(60 %)
Gulf JP KP2 Co., Ltd.	(60 %)
Gulf JP NLL Co., Ltd.	(44.99%)
EGCO Cogeneration Co., Ltd.	(20 %)
Roi-Et Green Co., Ltd.	(24.7 %)
Gulf Yala Green Co., Ltd.	(49 %)
Gulf JP1 Co., Ltd.	(60 %)
Gulf Power Generation Co., Ltd.	(49 %)
Indonesia	
PT.BHIMASENA POWER INDONESIA	(34 %)
Philippines	
CBK Power Co., Ltd.	(50 %)
Lake Mainit Hydro Holdings Corporation**4	(40 %)
United States	
Jackson Generation, LLC*5	(51 %)
Tenaska Frontier Partners, Ltd.	(31 %)
Elwood Energy, LLC	(50 %)
Green Country Energy, LLC	(50 %)
Pinelawn Power LLC	(50 %)
Equus Power I, L.P.	(50 %)
Tenaska Virginia Partners, L.P.	(15 %)
Edgewood Energy, LLC	(50 %)
Shoreham Energy, LLC	(50 %)
Orange Grove Energy, L.P.	(50 %)
Tenaska Pennsylvania Partners, LLC	(25 %)
The United Kingdom	
Triton Knoll Offshore Wind Farm Ltd.	(25 %)
Australia	
Clermont Coal Joint Venture	(22.2 %)
Narrabri Joint Venture	(7.5 %)
Maules Creek Joint Venture	(10 %)
China	
Shaanxi Hanjiang Investment & Development Co., Ltd.	(27 %)
China Resources Power (Hezhou) Co., Ltd.*6	(17 %)

\*Figures in % indicate the share of equity held by J-POWER, while those in parentheses ( ) indicate the share of equity held by subsidiaries and affiliates.



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ESG Data

ESG Data

Environmental Index Calculation Standards

Greenhouse gas emissions	
Scope 1 emissions N <sub>2</sub> O emissions	Calculated by multiplying the amount of each fuel used by the relevant emission factor based on the method specified in the Act on Promotion of Global Warming Countermeasures.
SF <sub>6</sub> emissions	Calculated by multiplying the amount of leakage (annual amount of SF <sub>6</sub> filled into relevant equipment) by the relevant emission factor according to the method specified by the Act on Promotion of Global Warming Countermeasures.
Scope 2 emissions (Location criteria)	Calculated by multiplying the amount of electricity purchased by the emission factor for the area
Scope 2 emissions (Market criteria)	Calculated by multiplying the amount of electricity purchased by the emission factor of each purchasing power company.
Scope 3 emissions	Calculated based on the method defined in the "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain"
Category 1 Purchased goods and services	Calculated by multiplying the quantity data of chemicals (limestone and ammonia) purchased and acquired by the company, as well as repair and outsourcing costs, by the relevant emission intensity.
Category 2 Capital goods	Calculated by multiplying the total capital investment by the emission intensity
Category 3 Fuel and energy-related activities not included in Scope 1 and 2	Total emissions from production of fuel for power generation, procurement of electricity for resale, and transportation of coal <ul style="list-style-type: none"><li>Calculated by multiplying the quantity data of fuel purchased by the company by the emission intensity.</li><li>Calculated by multiplying the electricity input data to the company by the average emission intensity of all power sources.</li><li>Calculated by multiplying the ton-kilometers of transports by rail, ship, and air by the emission intensity of each transportation agency based on the ton-kilometer method.</li></ul>
Category 5 Waste generated in operations	Calculated by multiplying the amount of industrial waste consigned for treatment (including the amount of effective utilization) by the emission intensity
Category 6 Business travels	Calculated by multiplying the number of employees by the emission intensity
Category 7 Employee commuting	Calculated by multiplying the number of employees of each work type and city class by the number of business days and emission intensity
Category 9 Downstream transportation and distribution	Emissions from coal transport from coal mines <ul style="list-style-type: none"><li>Calculated by multiplying the ton-kilometers of transports by rail, ship, and air by the emission intensity of each transportation agency based on the ton-kilometer method.</li></ul>
Category 11 Use of sold products	Emissions from the sale of coal produced in coal mines <ul style="list-style-type: none"><li>Calculated by multiplying the total sales volume of fuel, etc. by the emission intensity.</li></ul>
Category 15 Investments	Calculated by multiplying each investment's emissions by its equity.

Power generation and energy use	
Electricity generated and sold	The data is automatically collected by the measuring instruments. The measuring instruments are calibrated in accordance with regulations.
Various fuels and purchased electricity	Calculated in accordance with the Act on Rationalizing Energy Use and Shifting to Non-fossil Energy.

Emissions into the atmosphere	
Soot and smoke emissions (NOx, SOx, dust)	Calculated using data automatically collected by the measuring instruments based on the Air Pollution Control Act. The measuring instruments are calibrated in accordance with regulations.

Use of water resources	
Industrial water usage	The billing data from public water bureau or the data automatically measured by the instrument is aggregated. The measuring instruments are verified in accordance with Article 72 of the Measurement Act.
Water usage	The volume used on billing data from public water bureau or as measured by the instrument is aggregated.
Wastewater volume	The volume used as measured by the instrument is aggregated.

Generation and effective utilization of industrial waste	
Industrial waste generated	The quantities listed on the manifest* as stipulated by the Act on Waste Management and Public Cleansing are aggregated. Driftwood was counted by volume of material collected from the dam lakes.
Effective utilization rate of industrial waste	Ratio of the amount of waste recycled or reused and the amount of valuable materials sold to outside vendors, to the amount generated.

\*Manifest: A control slip that must be issued when outsourcing the collection, transportation, and disposal of waste materials to an outside contractor. The weight and disposal method of the waste are described.

ESG Data

ESG Data

Society

Category	Accounting Metric		Unit	Result		
				FY2021	FY2022	FY2023
Human resources*1	Number of employees (consolidated)*2	Male	Persons	6,229	6,147	6,115
		Female	Persons	917	931	968
		Total	Persons	7,146	7,078	7,083
	Managers	Male	Persons	1,385	1,398	1,485
		Female	Persons	19	20	26
		Percentage of women	%	1.4	1.4	1.7
	Number of new graduates hired	Male	Persons	89	81	79
		Female	Persons	15	16	21
		Total	Persons	104	97	100
	Number of mid-career hires	Male	Persons	2	18	16
		Female	Persons	1	2	2
		Total	Persons	3	20	18
	Percentage of mid-career hires		%	5	19	16
	Percentage of people with disabilities employed*3		%	2.45	2.42	2.34
	Average length of continuous service, years*4	Male	Years	20.4	19.7	19.8
		Female	Years	9.8	9.6	9.8
		Total	Years	19.7	19.0	19.1
	Average annual salary*4,5		Yen	7,939,362	8,045,816	10,459,535
	Ratio of women's to men's wages*6,7	20s and younger	%	96.3	96.1	97.8
		30s	%	95.7	97.9	100.8
		40s and over	%	103.6	105.7	102.3
	Turnover rate for the three years after joining		%	4.4	6.4	2.0
	Total actual working hours per person*4		Hours	1,976	1,951	1,968
	Overtime hours worked per person*4		Hours/Month	21.8	21.4	21.2
	Days of paid vacation taken per person*4		Days	15.4	16.4	16.8
	Percentage of employees taking childcare leave*8	Male	%	-	86	100
		Female	%	-	100	100
		Total	%	-	88	100
	Average age*4		Age	42.0	41.5	41.7
	Average hours of training per employee*9		Hours	34.2	33.9	36.4
	Training cost per employee*9		Thousand yen/person	232	245	236

\*1 Unless specified otherwise, data on human resource is based on those enrolled in J-POWER

\*2 J-POWER Group employees (excluding temporary employees)

\*3 As of June 1 of each fiscal year

\*4 J-POWER employees (excluding those on secondment)

\*5 Average annual salary includes non-standard wages and bonuses. Management and other employees not included until FY2022 are now included from FY2023.

\*6 Comparison of base salaries of employees in a career-track position. Ratio of female to male wages.

\*7 (Reference) Difference in wages between male and female workers calculated based on the Act on the Promotion of Women's Active Engagement in Professional Life, all employees (59.0%), regular employees (58.8%), non-regular employees (70.0%)

\*8 The Company manages the utilization rate of childcare leave for each fiscal year of the birth of an employee's child, and such rate of employees whose children become two years old in the relevant fiscal year is shown.

Category	Accounting Metric		Unit	Result		
				FY2021	FY2022	FY2023
Occupational health and safety	Number of occupational accidents*10					
	Fatal accidents	J-POWER and J-POWER Transmission Network Co., Ltd.	Persons	0	0	0
		Major five companies*11 + cooperating companies	Persons	0	0	0
		Total	Persons	0	0	0
	Serious injuries	J-POWER and J-POWER Transmission Network Co., Ltd.	Persons	0	0	0
		Major five companies*11 + cooperating companies	Persons	11	8	7
		Total	Persons	11	8	7
	Minor injuries	J-POWER, J-POWER Transmission Network Co., Ltd.	Persons	0	2	2
		Major five companies*11 + cooperating companies	Persons	11	5	15
		Total	Persons	11	7	17
	Frequency*12	J-POWER and J-POWER Transmission Network Co., Ltd. +Major five companies*11 + cooperating companies		1.27	0.91	1.39
		Industry-wide*14		2.09	2.06	2.14
		Total				
	Severity*13	J-POWER and J-POWER Transmission Network Co., Ltd. +Major five companies*11 + cooperating companies		0.06	0.05	0.04
		Industry-wide*14		0.09	0.09	0.09
		Total				

\*9 Employees enrolled in J-POWER (excluding some on secondment)

\*10 The number of fatalities and lost-workday injuries among occupational accidents involving J-POWER and J-POWER Transmission Network employees and occupational accidents involving contractors (primary contractors and subcontractors) involved in construction and operations ordered by the companies

\*11 Major consolidated subsidiaries to which J-POWER outsources facilities maintenance. J-POWER Business Service Corporation, J-POWER HYTEC Co., Ltd., J-POWER Generation Service Co., Ltd., J-POWER Telecommunication Service Co., Ltd., J-POWER Design Co., Ltd.

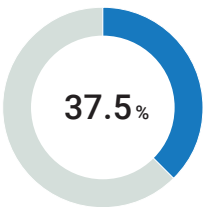
\*12 Frequency = number of fatalities and injuries due to occupational accidents / total number of actual hours worked × 1,000,000. Contract workers are outside the reporting scope of "Industry-wide" data (directly hired workers are only included in the data) while the data of "J-POWER and J-POWER Transmission Network Co., Ltd. + major five companies + cooperating companies" includes contract workers.

\*13 Severity = total number of days of labor loss / total number of actual hours worked × 1,000. Contract workers are outside the reporting scope of "Industry-wide" data (directly hired workers are only included in the data) while the data of "J-POWER and J-POWER Transmission Network Co., Ltd. + major five companies + cooperating companies" includes contract workers.

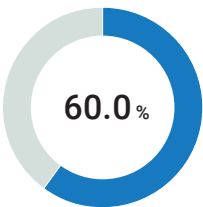
\*14 Source: Ministry of Health, Labour and Welfare, *Overview of Survey on Industrial Accidents in 2023 (survey on establishments with 100 or more regular employees and survey on general construction)*, May 31, 2024 (release date). <https://www.mhlw.go.jp/toukei/tiran/roudou/saigai/23/>

Governance (As of June 26, 2024)

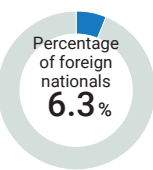
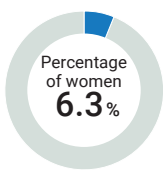
Percentage of Outside Directors on the Board of Directors



Percentage of Outside Officers on the Nomination and Compensation Committee



Composition of Directors



## ESG Data

### SASB INDEX

Relevant performance is organized in accordance with the Electric Utilities & Power Generators industry standards set by the US-based Sustainability Accounting Standards Board (SASB). SASB Standards were created primarily with companies and markets in North America in mind and incorporate some items that do not apply to our business. However, we have attempted to disclose as much information as possible.

Topic	Accounting Metric	Code	Unit	Result
Greenhouse Gas Emissions & Energy Resource Planning*1	(1) Gross global Scope 1 emissions	IF-EU-110a.1.	t-CO <sub>2</sub>	44,390,000
	(2) Percentage of Scope 1 emissions under emissions-limiting regulations		%	Not applicable
	(3) Percentage of Scope 1 under emissions-reporting regulations		%	100%
	Greenhouse gas (GHG) emissions associated with power deliveries	IF-EU-110a.2.	t-CO <sub>2</sub>	44,100,000
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions	IF-EU-110a.3.	Aim for net-zero emissions (carbon neutrality) by 2050. Concerning coal-fired power in Japan as we head toward 2030, we will phase out power plants that have become obsolete, starting with the oldest, and upcycle remaining power plants to highly efficient power systems that use hydrogen by adding gasification facilities, thereby reducing emissions. We will also introduce mixed combustion of biomass and ammonia, further reducing emissions.	
	Emissions reduction targets		2050 Net-zero emissions 2030 Reduce CO <sub>2</sub> emissions from the J-POWER Group's domestic power generation business: 46% (22.5 million t-CO <sub>2</sub> )*3 FY2025 Reduce CO <sub>2</sub> emissions from the J-POWER Group's domestic power generation business: 9.2 million t-CO <sub>2</sub> *3	
	Analysis of performance against the above targets		In order to cut FY2030 CO <sub>2</sub> emissions from the J-POWER Group's domestic power generation business 46% (22.5 million t-CO <sub>2</sub> ),*3 we added 9.2 million t reduction by FY2025 as an interim target and are moving forward with plans to implement the above reductions.	
	(1) Number of customers served in markets subject to renewable portfolio standards (RPS)	IF-EU-110a.4.	Customers	Not applicable
	(2) Percentage fulfillment of RPS target by market		%	*The RPS law which established RPS regulations in Japan was abolished in 2012 and has shifted to a feed-in tariff system.
	(1) NOx	IF-EU-120a.1.	t, %	21,000 tons, [100%] The percentage value indicates emission rate in densely populated areas.
Air Quality*2	(2) SOx		t, %	7,500 tons, [100%] The percentage value indicates emission rate in densely populated areas.
	(3) Particulate matter (PM <sub>10</sub> )		t, %	Undisclosed, as we have not adopted measurement methods recommended by the SASB Standards.
	(4) Lead (Pb)		t, %	Undisclosed, as we have not adopted measurement methods recommended by the SASB Standards.
	(5) Mercury (Hg)		t, %	Undisclosed, as we have not adopted measurement methods recommended by the SASB Standards.
Water Management*2	(1) Total water withdrawn	IF-EU-140a.1.	thousand m <sup>3</sup> , %	61,276,000 thousand m <sup>3</sup> , [0%] The percentage value indicates the proportion of areas with high/extremely high water stress.
	(2) Total water consumed		thousand m <sup>3</sup> , %	19,400 thousand m <sup>3</sup> , [58%] The percentage value indicates the proportion of areas with high/extremely high water stress.
	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	IF-EU-140a.2.	Cases	0
	Description of water management risks and discussion of strategies and practices to mitigate those risks	IF-EU-140a.3.	The Company manages the following risks related to the use of water resources, which are essential to its power generation business. In the hydroelectric power generation business, the amount of water withdrawal permitted by law is observed, and as shown in,*4 the river environment is maintained by discharging water from rivers exceeding a certain size. In the thermal power generation business, we are working to reduce water intake by recovering and reusing water for power generation. In addition, seawater is used as indirect cooling water for power generation facilities, and we comply with the levels stipulated in environmental conservation agreements. WRI Aqueduct (3.0) is used to locate water risks for the hydroelectric and thermal power plants of consolidated subsidiaries that use large amounts of water resources. As a result, while no power plants operate in places with high water stress in Japan, there are many thermal power plants located in regions with high water stress overseas. In such overseas areas, we are reducing water intake/ consumption and operational risk by reusing water discharges after treatment and constructing reservoirs by taking each site's environment into account.	
	Amount of coal combustion residuals (CCR) generated and percentage recycled	IF-EU-150a.1.	t, %	1,270,000tons (94.8 %)
	Number of CCR impoundments	IF-EU-150a.2.	Cases	3

\*1 The figure is calculated for J-POWER and its domestic and overseas consolidated subsidiaries and equity method affiliates (Electric Power Business, Overseas Business, Electric Power Related Business, etc.).  
\*2 The figure is calculated for J-POWER and its domestic and overseas consolidated subsidiaries (Electric Power Business, Overseas Business, Electric Power Related Business, etc.), without taking into account the ratio of capital contribution.  
\*3 All of these reductions are compared to FY2013.  
\*4 The length of the section of the river where water intake for hydroelectric power generation reduces water flow is 10 km or more and the catchment area is 200 km2 or more, etc.

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ESG Data

SASB INDEX

Topic	Accounting Metric	Code	Unit	Result
Energy Affordability	(1) Retail electric rate for residential customers	IF-EU-240a.1.		Not disclosed for competitive reasons due to deregulation of the electric power industry
	(2) Retail electric rate for commercial customers			
	(3) Average retail electric rate for industrial customers			
	Typical monthly electric bill for residential customers for (1) 500 kWh of electricity delivered per month	IF-EU-240a.2.		
	Typical monthly electric bill for residential customers for (2) 1,000 kWh of electricity delivered per month			
	(1) Number of residential customer electric disconnections for non-payment	IF-EU-240a.3.		
(2) Percentage reconnected within 30 days				
Workforce Health and Safety	(1) Total recordable incident rate (statistic count × 200,000 / hours worked)	IF-EU-320a.1.		0.28 (Employees: 0.05; Outsourcing & other contractors: 0.35) *Calculations are for J-POWER, five major J-POWER Group companies* and cooperating companies.)
	(2) Fatality rate (number of cases)		Cases	0
	(3) Near miss frequency rate (statistic count × 200,000 / hours worked)			Undisclosed, as we have not adopted measurement methods recommended by the SASB Standards
End-Use Efficiency & Demand	(1) Decoupled percentage	IF-EU-420a.1.	%	Not applicable
	(2) Lost revenue adjustment mechanism (LRAM) percentage		%	*Not applicable as no customers in Japan have adopted the decoupling and LRAM
	Percentage of electric load (MWh) served by smart grid technology	IF-EU-420a.2.		Not disclosed for competitive reasons due to deregulation of the electric power industry
	Customer electricity savings from efficiency measures, by market	IF-EU-420a.3.	MWh	Not applicable
Nuclear Safety & Emergency Management	Total number of nuclear power units	IF-EU-540a.1.	Number of units	1 (Ohma Nuclear Power Plant) *Ohma Nuclear Power Plant is currently under construction and reviewed by the Nuclear Regulation Authority of its compliance with the New Safety Standards for Nuclear Power Stations. Timing of operational start is unscheduled.
	Description of efforts to manage nuclear safety and emergency preparedness	IF-EU-540a.2.		We will work to improve safety by aptly implementing safety activities based on the quality management system for nuclear safety led by our president, and by steadily undertaking continuous improvement through the Corrective Action Program (CAP). Furthermore, with "safety first" as our organizational culture and with awareness among all of us of the roles and the importance of our work duties, we engage in activities to foster and maintain a culture of nuclear safety by which we continuously improve ourselves.
Grid Resiliency	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	IF-EU-550a.1.		Not disclosed due to risks associated with disclosure
	(1) System Average Interruption Duration Index (SAIDI)	IF-EU-550a.2.		Not applicable
	(2) System Average Interruption Frequency Index (SAIFI)			*J-POWER Transmission Network Co., Ltd., a consolidated subsidiary of the Company, owns electric power transmission and transformation facilities and engages in electricity transmission as stipulated in the Electricity Business Act, but does not own distribution facilities and does not engage in the business of supplying electricity to end users. This is currently placed under the roles of individual transmission system operators (TSOs) that engage in grid operations in specific areas.
	(3) Customer Average Interruption Duration Index (CAIDI)			

\*Major consolidated subsidiaries to which J-POWER outsources facilities maintenance. J-POWER Business Service Corporation, J-POWER HYTEC Co., Ltd., J-POWER Generation Service Co., Ltd., J-POWER Telecommunication Service Co., Ltd., J-POWER Design Co., Ltd.

Activity Metrics

Business metrics	Unit	Result
Number of: (1) residential, (2) commercial, and (3) industrial customers served	Customers	Not disclosed for competitive reasons due to deregulation of the electric power industry
Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	MWh	Not disclosed for competitive reasons due to deregulation of the electric power industry
Length of transmission and distribution lines	km	2,410.2 km
Total electricity generated, percentage by major energy source, percentage in regulated markets	MWh, %	(1) 69,552,828 MWh (2) Hydroelectric: 13.2% Thermal: 85.2% Wind: 1.7% (3) Not applicable (Marked "Not applicable" as there are no "regulated markets" in Japan)
Total wholesale electricity purchased	MWh	Not disclosed for competitive reasons due to deregulation of the electric power industry



# Major Group Companies

## Consolidated Subsidiaries (As of March 31, 2024)

Company Name	Main Businesses	Equity Stake (%)
Electric Power Business		
J-POWER Transmission Network Co., Ltd.	Transmission business	100.0
J-Wind Kaminokuni, Ltd.	Wind power business	100.0
J-Wind Co., Ltd.	Wind power business	100.0
J-Wind KUZUMAKI Co., Ltd.	Wind power business	100.0
J-Wind SETANA Co., Ltd.	Wind power business	100.0
J-Solar Co., Ltd.	Solar power business	100.0
Nagasaki-Shikamachi Wind Power Co., Ltd.	Wind power business	70.0
Ishikari Green Energy Co., Ltd.	Wind power business	70.0 (70.0)
Esashi Green Energy Co., Ltd	Wind power business	70.0 (70.0)
Electric Power-Related Business		
J-POWER AUSTRALIA PTY. LTD.	Investment in coal mines in Australia	100.0
J-POWER Generation Service Co., Ltd.	Operation of thermal power plants; sale of fly ash; ocean transportation of coal for thermal power plants; research, planning, and analysis of environmental conservation	100.0
J-POWER HYTEC Co., Ltd.	Construction, technical development, design, consulting, maintenance, and research for hydroelectric power plants, substations, and transmission lines; surveying of and compensation for construction sites; civil engineering, construction management, and construction services	100.0
J-POWER Business Service Corporation	Operation of welfare facilities; facility maintenance; business process outsourcing; development of computer software; import and sale of fuel for power generation	100.0
J-POWER EnTech Inc.	Engineering services for atmospheric and water pollutant removal equipment	100.0
J-POWER Telecommunication Service Co., Ltd.	Construction and maintenance of electronic and communications facilities, telecommunications, etc.	100.0
J-POWER Design Co., Ltd.	Design, management, and research for electric power facilities and other facilities and construction consulting	100.0
Miyazaki Wood Pellet Co., Ltd.	Operation of manufacturing facilities of wood pellets and procurement of forest offcut	98.3
JM Activated Coke, Inc.	Manufacturing, sales, and marketing of activated coke	90.0
J-Wind Service Co., Ltd.	Maintenance and operation of wind power plants	100.0 (100.0)
EPDC CoalTech and Marine Co., Ltd.	Ocean transportation of ash and fly ash, etc.	100.0 (100.0)
and 6 other companies		

Notes: 1. The percentages in parentheses represent indirect holding ratios and are included in the percentages above.  
2. J-POWER AUSTRALIA PTY. LTD., JP Renewable Europe Co., Ltd., J-POWER Holdings (Thailand) Co., Ltd., J-POWER Jackson Capital, LLC, J-POWER Jackson Partners, LLC, Jackson Generation, LLC, Gulf JP Co., Ltd., Gulf JP UT Co., Ltd., and Gulf JP NS Co., Ltd. are specified subsidiaries.

Company Name	Main Businesses	Equity Stake (%)
Overseas Business		
JP Renewable Europe Co., Ltd.	Management of investments	100.0
J-Power Investment Netherlands B.V.	Management of investments	100.0
J-POWER Consulting (China) Co., Ltd.	Management of investments, research and development of projects	100.0
JP Generation Australia Pty. Ltd.	Management of investments, research and development of projects	100.0
J-Power Generation Philippines Inc.	Management of investments, research and development of projects	100.0
J-POWER VIETNAM Co., Ltd.	Research and development of projects	100.0
J-POWER North America Holdings Co., Ltd.	Management of investments	100.0
J-POWER Holdings (Thailand) Co., Ltd.	Management of investments	100.0 (100.0)
J-POWER Generation (Thailand) Co., Ltd.	Management of investments, research and development of projects	100.0 (100.0)
JPGA Partners Pty. Ltd.	Management of investments	100.0 (100.0)
JPBC DEVELOPMENT CO PTY. LTD.	Management of investments	100.0 (100.0)
JPBC SOLAR PTY. LTD.	Management of investments	100.0 (100.0)
JPBC BATTERY PTY. LTD.	Management of investments	100.0 (100.0)
J-POWER USA Investment Co., Ltd.	Management of investments	100.0 (100.0)
J-POWER USA Development Co., Ltd.	Management of investments, research and development of projects	100.0 (100.0)
J-POWER Renewables Capital, LLC	Development business	100.0 (100.0)
J-POWER Jackson Capital, LLC	Management of investments	100.0 (100.0)
J-POWER Jackson Partners, LLC	Management of investments	100.0 (100.0)
Jackson Generation, LLC	Thermal power business	51.0 (51.0)
AP Solar 4, LLC	Development business	100.0 (100.0)
Gulf JP Co., Ltd.	Management of investments	60.0 (60.0)
Gulf JP UT Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP NS Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP NNK Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP CRN Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP NK2 Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP TLC Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP KP1 Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP KP2 Co., Ltd.	Thermal power business	60.0 (60.0)
Gulf JP1 Co., Ltd.	Solar power business	60.0 (60.0)
Gulf JP NLL Co., Ltd.	Thermal power business	45.0 (45.0)
and 14 other companies		

Other Business		
Kaihatsu Hiryou Co., Ltd.	Production and sales of fertilizer using ash	100.0
J-POWER Latrobe Valley Pty. Ltd.	Participating in Australian Brown Coal Hydrogen Pilot Test Project	100.0
Biocoal Osaka-Hirano Co., Ltd.	Construction and operation of a sewage sludge-based fuel manufacturing facility	60.0
Green Coal Saikai, Co., Ltd.	Operation of an ordinary waste-based fuel manufacturing facility	60.0
and 1 other company		

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Major Group Companies

Affiliates Accounted for by the Equity Method (As of March 31, 2024)

Company Name	Main Businesses	Equity Stake (%)
Electric Power Business		
Kashima Power Co., Ltd.	Thermal power business	50.0
Yuzawa Geothermal Power Generation Corporation	Geothermal power business	50.0
Osaki CoolGen Corporation	Large-scale demonstration trials of oxygen-blown IGCC and CCS technologies, etc.	50.0
Suzuyo Power Co., Ltd.	Electricity sale	49.9
TOSA POWER Inc.	Thermal power business	45.0
ENERES Co., Ltd.	Energy-related consulting business, power generation business, etc.	41.0
Hibiki Wind Energy Co., Ltd.	Wind power business	40.0
Oga Katagami Akita Offshore Green Energy LLC.	Wind power business	37.0
Appi Geothermal Energy Corporation	Geothermal power business	15.0
and 3 other companies		

Company Name	Main Businesses	Equity Stake (%)
Overseas Business		
JM Energy Co., Ltd.	Management of investments	50.0
PT. BHIMASENA POWER INDONESIA	Thermal power business	34.0
Shaanxi Hanjiang Investment & Development Co., Ltd.	Hydroelectric power business	27.0
CBK Netherlands Holdings B.V.	Management of investments	50.0 (50.0)
J-POWER USA Generation, L.P.	Management of investments	50.0 (50.0)
Birchwood Power Partners, L.P.	Asset management and guarantee of performance	50.0 (50.0)
Birchwood O&M, LLC	Asset management	50.0 (50.0)
Generating Electric Public Co., Ltd.	Management of investments	49.0 (49.0)
Kaeng Khoi Power Generation Co., Ltd.	Thermal power business	49.0 (49.0)
Nong Khae Cogeneration Co., Ltd.	Thermal power business	49.0 (49.0)
Samutprakarn Cogeneration Co., Ltd.	Thermal power business	49.0 (49.0)
Gulf Cogeneration Co., Ltd.	Thermal power business	49.0 (49.0)
Yala Green Power Generation Co., Ltd.	Thermal power business	49.0 (49.0)
EGCO Green Energy Co., Ltd.	Management of investments	26.0 (26.0)
Triton Knoll Offshore Wind Farm Ltd.	Wind power business	25.0 (25.0)
Tenaska Pennsylvania Partners, LLC	Thermal power business	25.0 (25.0)
EGCO Cogeneration Co., Ltd.	Thermal power business	20.0 (20.0)
CBK Power Co., Ltd.	Hydroelectric power business	— [100.0]
Bukidnon Hydro Energy Corp.	Management of investments, research and development of projects	40.0 (40.0)
Agusan Power Corp.	Hydroelectric power business	40.0 (40.0)
Green Country Energy, LLC	Thermal power business	— [100.0]
Pinelawn Power LLC	Thermal power business	— [100.0]
Equus Power I, L.P.	Thermal power business	— [100.0]
Edgewood Energy, LLC	Thermal power business	— [100.0]
Shoreham Energy, LLC	Thermal power business	— [100.0]
Orange Grove Energy, L.P.	Thermal power business	— [100.0]
Elwood Energy, LLC	Thermal power business	— [100.0]
Roi-Et Green Co., Ltd.	Thermal power business	— [95.0]
Tenaska Virginia Partners, L.P.	Thermal power business	— [30.0]
Tenaska Frontier Partners, Ltd.	Thermal power business	— [25.0]
and 47 other companies		

Note: The percentages in parentheses represent indirect holding ratios and are included in the percentages above. Those shown in brackets are the ratios held by closely related parties or parties in agreement and excluded from the percentages above.

# J-POWER Group Facilities

## Power Generation Facilities in Operation\*

(As of March 31, 2024)

\*Power generation facilities of the Electric Power Business segment and Overseas Business segment

Type	Power Plants	Location (Prefecture)	River System	Start of Operation (Year)	Authorized Output (MW)
Hydroelectric	Horoka	Hokkaido	Tokachigawa	1965	10
	Nukabira	Hokkaido	Tokachigawa	1956	44
	Meto No. 1	Hokkaido	Tokachigawa	1958	27
	Meto No. 2	Hokkaido	Tokachigawa	1958	28
	Ashoro	Hokkaido	Tokachigawa	1955	40
	Honbetsu	Hokkaido	Tokachigawa	1962	25
	Kumaushi	Hokkaido	Tokachigawa	1987	15
	Satsunaigawa	Hokkaido	Tokachigawa	1997	8
	Kuttari	Hokkaido	Tokachigawa	2015	0.5
	Shinkatsurazawa	Hokkaido	Ishikarigawa	2022	16
	Kumaoi	Hokkaido	Ishikarigawa	1957	5
	Towa	Iwate	Kitakamigawa	1954	27
	Isawa No. 1	Iwate	Kitakamigawa	2014	14
	Shimogo (Pumped storage plant)	Fukushima	Aganogawa	1988	1,000
	Otsumata	Fukushima	Aganogawa	1968	38
	Okutadami	Fukushima	Aganogawa	1960	56
	Okutadami (Ecological Flow)	Fukushima	Aganogawa	2003	3
	Otori	Fukushima	Aganogawa	1963	182
	Tagokura	Fukushima	Aganogawa	1959	400
	Tadami	Fukushima	Aganogawa	1989	65
	Taki	Fukushima	Aganogawa	1961	92
	Kurotani	Fukushima	Aganogawa	1994	20
	Kuromatagawa No. 1	Niigata	Shinanogawa	1958	62
	Kuromatagawa No. 2	Niigata	Shinanogawa	1964	17
	Suezawa	Niigata	Shinanogawa	1958	2
	Aburumagawa	Niigata	Shinanogawa	1985	5
	Okukiyotsu (Pumped storage plant)	Niigata	Shinanogawa	1978	1,000
	Okukiyotsu No. 2 (Pumped storage plant)	Niigata	Shinanogawa	1996	600
	Numappara (Pumped storage plant)	Tochigi	Nakagawa	1973	675
	Hayakido	Nagano	Tenryugawa	1985	11
	Misakubo	Shizuoka	Tenryugawa	1969	50

### Domestic, Overseas Total

Generation Capacity 44,454 MW | Owned Capacity 25,782 MW

### Domestic Total (98 bases)

Generation Capacity 18,621 MW | Owned Capacity 18,071 MW

Type	Power Plants	Location (Prefecture)	River System	Start of Operation (Year)	Authorized Output (MW)
	Shintoyone (Pumped storage plant)	Aichi	Tenryugawa	1972	1,125
	Sakuma	Shizuoka	Tenryugawa	1956	350
	Sakuma No. 2	Shizuoka	Tenryugawa	1982	32
	Akiha No. 1	Shizuoka	Tenryugawa	1958	47
	Akiha No. 2	Shizuoka	Tenryugawa	1958	35
	Akiha No. 3	Shizuoka	Tenryugawa	1991	47
	Funagira	Shizuoka	Tenryugawa	1977	32
	Miboro	Gifu	Shougawa	1961	215
	Miboro No. 2	Gifu	Shougawa	1963	59
	Ogamigo	Gifu	Shougawa	1971	20
	Nagano	Fukui	Kuzuryugawa	1968	220
	Yugami	Fukui	Kuzuryugawa	1968	54
	Konokidani	Fukui	Kuzuryugawa	2016	0.2
	Tedorigawa No. 1	Ishikawa	Tedorigawa	1979	250
	Nishiyoshino No. 1	Nara	Shingugawa	1956	33
	Nishiyoshino No. 2	Nara	Kinokawa	1955	13
	Totsukawa No. 1	Nara	Shingugawa	1960	75
	Totsugawa No. 2	Wakayama	Shingugawa	1962	58
	Owase No. 1	Mie	Shingugawa/ Choushigawa	1962	40
	Owase No. 2	Mie	Choushigawa	1961	25
	Ikehara	Nara	Shingugawa	1964	350
	Nanairo	Wakayama	Shingugawa	1965	82
	Komori	Mie	Shingugawa	1965	30
	Yanase	Kochi	Naharigawa	1965	36
	Futamata	Kochi	Naharigawa	1963	72
	Nagayama	Kochi	Naharigawa	1960	37
	Sameura	Kochi	Yoshinogawa	1972	42
	Setoishi	Kumamoto	Kumagawa	1958	20
	Sendaigawa No. 1	Kagoshima	Sendaigawa	1965	120
	Sendaigawa No. 2	Kagoshima	Sendaigawa	1964	15
Total (Domestic Hydroelectric, 61 plants)					8,577

## J-POWER Group Facilities

### Power Generation Facilities in Operation (As of March 31, 2024)

Type	Power Plants	Location (Prefecture)	Start of Operation (Year)	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)
Wind Power	Setana Seaside	Hokkaido	2005	12	100	12
	Setana-Osato Wind Farm	Hokkaido	2020	50	100	50
	Kaminokuni Wind Farm	Hokkaido	2014	28	100	28
	Esashi	Hokkaido	2023	21	70	15
	New Shimamaki Wind Farm	Hokkaido	2023	4	100	4
	New Sarakitomanai Wind Farm	Hokkaido	2023	15	100	15
	New Tomamae Winvilla	Hokkaido	2023	31	100	31
	Ishikari Hachinosawa Wind Farm	Hokkaido	2024	21	70	15
	Ohma Wind Farm	Aomori	2016	20	100	20
	Green Power Kuzumaki	Iwate	2003	21	100	21
	Kuzumaki No. 2	Iwate	2020	45	100	45
	Nikaho No. 2	Akita	2020	41	100	41
	Yurihonjo Bayside	Akita	2017	16	100	16
	New Nikaho Kogen	Akita	2024	25	100	25
	Koriyama-Nunobiki Kogen	Fukushima	2007	66	100	66
	Hiyama Kogen	Fukushima	2011	28	100	28
	Irozaki	Shizuoka	2010	34	100	34
	Tahara Bayside	Aichi	2005	22	100	22
	Tahara	Aichi	2004	2	100	2
	Awara-Kitagata	Fukui	2011	20	100	20
	Yokihinosato Wind Park	Yamaguchi	2003	5	100	5
	Minami Ehime	Ehime	2015	29	100	29
	Nagasaki-Shikamachi Wind Farm	Nagasaki	2005	15	70	11
	Aso-Oguni Wind Farm	Kumamoto	2007	9	100	9
Total (Domestic Wind Power, 24 farms)				587		560
Geothermal	Wasabizawa	Akita	2019	46	50	23
	Appi	Iwate	2024	15	15	2
	Onikobe	Miyagi	2023	15	100	15
Total (Domestic Geothermal, 3 plants)				76		40

\*Yokihinosato Wind Park has ended its operation in April 2024, and plans are underway to upgrade the facilities.  
\*Nagasaki-Shikamachi Wind Farm has ended its commercial operation in April 2024.

Type	Power Plants	Location (Prefecture)		Start of Operation (Year)	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)
Coal-fired	Isogo	Kanagawa	New No. 1	2002	600	100	600
			New No. 2	2009	600	100	600
	Takasago	Hyogo	No. 1	1968	250	100	250
			No. 2	1969	250	100	25
	Takehara	Hiroshima	New No. 1	2020	600	100	600
			No. 3	1983	700	100	700
	Tachibanawan	Tokushima	No. 1	2000	1,050	100	1,050
			No. 2	2000	1,050	100	1,050
	Matsushima	Nagasaki	No. 1	1981	500	100	500
			No. 2	1981	500	100	500
	Matsuura	Nagasaki	No. 1	1990	1,000	100	1,000
			No. 2	1997	1,000	100	1,000
	Ishikawa Coal	Okinawa	No. 1	1986	156	100	156
			No. 2	1987	156	100	156
Thermal (J-POWER): 7 power plants					8,412		8,412
Coal-fired	Tosa	Kochi			167	45	75
	Kashima	Ibaraki			645	50	323
Demonstration tests facility	Osaki CoolGen	Hiroshima			166	50	83
Thermal (Subsidiaries): 3 power plants					978		481
Total (Domestic Thermal): 9 power plants, 1 test facility					9,390		8,893



# J-POWER Group Facilities

## Power Generation Facilities in Operation

(As of March 31, 2024)

Overseas Total (37 projects)		
Output Capacity	25,834 MW	Owned Capacity 7,712 MW

Countries	Type	Projects	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)	Power Purchasers	Validity of Purchase Agreement
Thailand	Gas-fired (CCGT)	7SPP*1	790	–	456	EGAT/Companies in the industrial park	Valid to 2038
		KP1	110	60	66		
		KP2	110	60	66		
		TLC	110	60	66		
		NNK	110	60	66		
		NLL	120	45	54		
		CRN	110	60	66		
		NK2	120	60	72		
	Gas-fired (CCGT)	Nong Seang	1,600	60	960	EGAT	Valid to 2039
	Gas-fired (CCGT)	U-Thai	1,600	60	960	EGAT	Valid to 2040
	Solar	Rooftop solar	2	60	1	Companies in the industrial park	–
	Total (Consolidated)		3,992		2,377		
	Biomass (Chaff)	Roi-Et	9	25	2	EGAT	Valid to 2024
	Gas-fired (CCGT)	EGCO Cogeneration	74	20	15	EGAT/Companies in the industrial park	Vary among the companies
	Biomass (Rubber-Wood Waste)	Yala	20	49	10	EGAT	Valid to 2031
	Gas-fired (CCGT)	Kaeng Khoi 2	1,468	49	719	EGAT	Valid to 2033
Total (Non-Consolidated)			1,571		746		
Thailand (Total, 14 projects)			5,563		3,124		

\*1 The 7 SPPs project, which commenced operation in 2013.  
\*2 SCGT (simple cycle gas turbine): A generating system using only a gas turbine.  
\*3 Gemeng International Energy Co., Ltd., is an electric power company that owns 16 power generation companies.  
\*4 Although power purchase agreements are renewed every year, J-POWER concludes memoranda of understanding regarding power grid connection and management with province-level transmission and distribution companies to, in principle, continuously purchase power for the duration of a given facility's operation.

Countries	Type	Projects	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)	Power Purchasers	Validity of Purchase Agreement
The United States	Gas-fired (CCGT)	Tenaska Frontier	830	31	257	ERCOT market and MISO market	–
	Gas-fired (SCGT)*2	Elwood Energy	1,350	50	675	PJM market	–
	Gas-fired (CCGT)	Jackson	1,200	51	612	PJM market	–
	Gas-fired (CCGT)	Westmoreland	94	25	235	PJM market	–
	Gas-fired (CCGT)	Green Country	795	50	398	SPP market	–
	Gas-fired (CCGT)	Pinelawn	8	50	40	Long Island Power Authority	Valid to 2025
	Gas-fired (SCGT)	Equus	48	50	24	NYISO market	–
	Gas-fired (SCGT)	Edgewood	88	50	44	NYISO market	–
	Jet Fuel (Simple Cycle)	Shoreham	90	50	45	NYISO market	–
	Gas-fired (CCGT)	Fluvanna	885	15	133	Shell Energy North America	Valid to 2024
	Gas-fired (SCGT)	Orange Grove	96	50	48	San Diego Gas & Electric	Valid to 2035
The United States (Total, 11 projects)			6,402		2,511		
China	Hydroelectric	Hanjiang (Xihe, Shuhe)	450	27	122	Shaanxi Electric Power Company	Renewed every year*4
	Coal-fired, Wind Power, Solar, Pumped Storage	Gemeng*3	9,658	7	676	Shanxi Province Power Corporation	–
China (Total, 3 projects)			10,108		798		
Philippines	Hydroelectric	CBK (3 projects)	728	50	364	National Power Corporation	Valid to 2026
	Hydroelectric	Lake Mainit	25	40	10	ANECO	Valid to 2048
The United Kingdom	Offshore	Triton Knoll	857	25	214	Orsted	Valid to 2037
Indonesia	Coal-fired	Batang	2,000	34	680	PLN	Valid to 2047
Australia	Solar	Kidston Stage1	50	7.7	4	NEM market	–
	Solar	Jemalong Solar	50	7.7	4	NEM market	–
	Storage	Bouldercombe	50	7.7	4	NEM market	–
Other countries/regions (9 projects)			3,760		1,280		

\*J-POWER acquired 100% ownership of Genex Power Limited, which undertakes projects in Australia, in July 2024.

## J-POWER Group Facilities

### Coal Mine Projects (as of December 31, 2023)

Coal Mine	Location	Outport	2023 Sales Volume (million tons)	Vested Interest (%)	Coal Production Start
Clermont	Queensland, Australia	Dalrymple Bay	11.40	22.2	2010
Narrabri	New South Wales, Australia	Newcastle Port	4.93	7.5	2012
Maules Creek	New South Wales, Australia	Newcastle Port	8.10	10	2014

### Main Transmission and Transformation Facilities\* (As of March 31, 2024)

\*Transmission and transformation facilities are held by J-POWER Transmission Network Co., Ltd., a wholly owned subsidiary of J-POWER.

#### Transmission Facilities

Major Transmission Lines	Beginning of Operation (Year)	Location (Prefecture)	Distance (km)	Voltage (kV)
Tokachi Trunk Line	1956	Hokkaido	214.4	187
Hokkaido–Honshu HVDC Interconnection Line	1979	Hokkaido–Aomori	167.4	DC±250
Tadami Trunk Line	1959	Fukushima–Tokyo metropolitan area	216.3	275-500
Sakuma East Trunk Line	1956	Shizuoka–Tokyo metropolitan area	197.3	275
Sakuma West Trunk Line	1956	Shizuoka–Aichi	107.7	275
Miboro Trunk Line	1960	Gifu–Aichi	108.5	275
Honshu–Shikoku Interconnection Line	1994	Kagawa–Okayama	127.0	500
Kii Channel HVDC Interconnection Line	2000	Tokushima–Wakayama	99.8	DC±250
Nahari Trunk Line	1960	Kochi–Ehime	120.0	187
Kanmon Interconnection Line	1980	Fukuoka–Yamaguchi	64.2	500

#### Substations

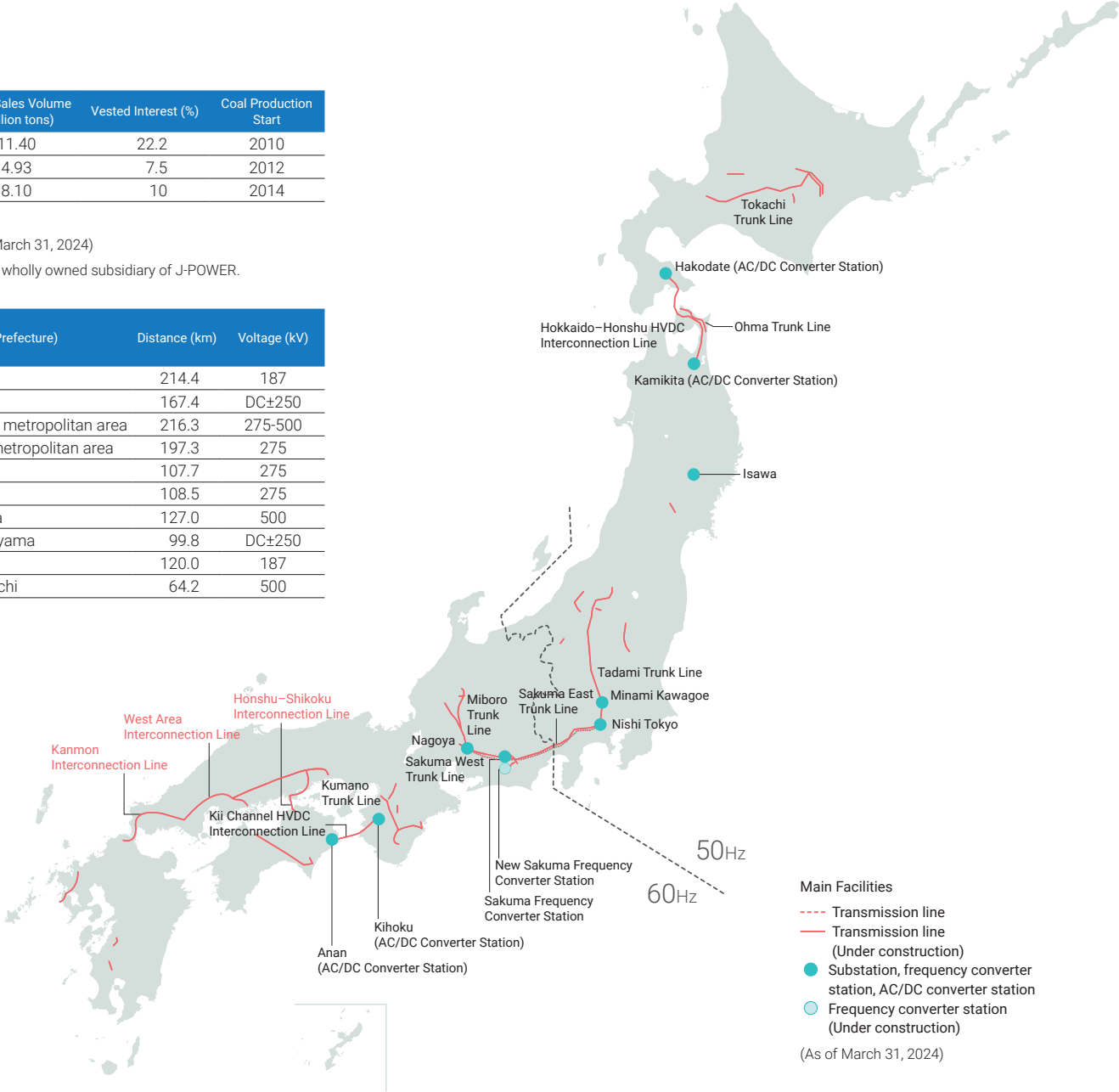
Substations	Beginning of Operation (Year)	Location (Prefecture)	Output (kVA)
Isawa	2012	Oshu City, Iwate	9,000
Minami Kawagoe	1959	Kawagoe City, Saitama	1,728,000
Nishi Tokyo	1956	Machida City, Tokyo	1,350,000
Nagoya	1956	Kasugai City, Aichi	1,400,000

#### Frequency Converter Station

Frequency Converter Station	Beginning of Operation (Year)	Location (Prefecture)	Output (MW)
Sakuma	1965	Tenryu, Hamamatsu City, Shizuoka	300

#### AC/DC Converter Stations

AC/DC Converter Stations	Beginning of Operation (Year)	Location (Prefecture)	Output (MW)
Hakodate	1979	Nanae Town, Kameda, Hokkaido	600
Kamikita	1979	Tohoku Town, Kamikita, Aomori	600
Kihoku	2000	Katsuragi Town, Ito, Wakayama	1,400
Anan	2000	Anan City, Tokushima	1,400



# J-POWER Group Facilities

## Major Projects Under Construction or Development (As of March 31, 2024)

### Domestic

Type	Projects	Location (Prefecture)	Status	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)	Start of operation
Nuclear	Ohma	Aomori	Under construction	1,383	100	1,383	To be determined
Hydroelectric	Suezawa (Repowering)	Niigata	Under construction	1 ▶ 2	100	1 ▶ 2	FY2024
	Ogamigou (Repowering)	Gifu	Preparing for construction	20 ▶ 21	100	20 ▶ 21	FY2024
	Nagayama (Repowering)	Kochi	Under construction	37 ▶ 40	100	37 ▶ 40	From FY2025 and onward
	Onabara	Ishikawa	Preparing for construction	1	100	1	FY2026
	Ikushunbetsugawa	Hokkaido	Preparing for construction	0.5	100	0.5	FY2026
	NEXUS Sakuma	Shizuoka	Under development	350 ▶ 400	100	350 ▶ 400	FY2035
	Kaminokuni No. 2*1	Hokkaido	Under construction	42	100	42	FY2024
Wind Onshore	Minami Ehime No. 2	Ehime	Under construction	34	100	34	FY2025
	Wajima	Ishikawa	Preparing for construction	90	100	90	FY2027
	New Minami Osumi (replacement)	Kagoshima	Preparing for construction	20	100	20	FY2026
	Off Oga, Katagami, and Akita	Akita	Under development	Max 315	37	116	FY2028
	Kitakyushu Hibikinada Offshore	Fukuoka	Under construction	Max 220	40	88	FY2025
	Kitakyushu Hibikinada	Fukuoka	Under construction	30	100	30	FY2024
	Himeji Oshio	Hyogo	Under construction	2	100	2	FY2024
Solar							

### Under Environmental Impact Assessment, etc.

Type	Projects	Location (Prefecture)	Output Capacity (MW)
Wind Onshore	Setana-Futoro	Hokkaido	*2
	Naka-Noto	Ishikawa	
	Fukui Ono Ikeda	Fukui	
	New Tahara Bayside (Replacement)	Aichi	
	Watarai	Mie	
	Kichu	Wakayama	
	Hiroshima-Nishi	Hiroshima	
	Reihoku Kunimiyama	Kochi	

Type	Projects	Location (Prefecture)	Output Capacity (MW)
Wind Onshore	Seiyo Yusuhara	Ehime/Kochi	*2
	Youra	Oita	
	Aso-Nishihara (Replacement)	Kumamoto	
	Hisatsu	Kumamoto/Kagoshima	
	Kita-Kagoshima	Kagoshima	

\*1 Phase 1 construction of Kaminokuni No. 2. Planned maximum capacity of 120 MW.  
\*2 The maximum output is approximately 800 MW in total at the planned sites undergoing environmental impact assessment procedures.

### Overseas

Type	Projects	Location	Status	Output Capacity (MW)	Ownership (%)	Owned Capacity (MW)	Start of Operation
Hydroelectric	Bulanog Batang	Philippines	Under development	32	40	13	2030
Pumped storage	K2-Hydro	Australia	Under construction	250	7.7	19	2024
Solar	Refugio	United States	Under development	370	100	370	2026
	Rooftop solar (GJP1) (9)	Thailand	Under construction/development	10	60	6	After 2024
	Rooftop solar (EGCO Cogeneration) (1)	Thailand	Under construction	2	20	1	2024
Solar, battery	Bulli Creek*3	Australia	Under development	775	53.9*4	417	To be determined
Onshore	Kidston Stage-3 Wind	Australia	Under development	258	53.9*4	139	2026

\*3 Maximum 2,000 MW development plan in total of solar and battery (Currently only listed 775 MW of phase 1 solar development).  
\*4 The total of J-POWER Group 50% equity and 7.7% investment in Genex.  
\*J-POWER acquired 100% ownership of Genex Power Limited, which undertakes projects in Australia, in July 2024.

## Major Transmission/Transformation Development Plans\*5

Project	Status	Capacity	Start of Operation
Construction of the New Sakuma Frequency Converter Station and replacement and expansion of related transmission lines	Under construction	New Sakuma Frequency Converter Station: 300 MW Sakuma East Trunk Line: Approx. 141 km	Expansion scheduled for completion at the end of FY2027

\*5 Initiatives of J-POWER Transmission Network Co., Ltd..

## Financial Information

Securities Report

Financial Statements

Earnings Results Presentation

## Non-financial Information (ESG)

Basic Policy on Sustainability

Basic Policy on Corporate Governance

Compliance Action Guidelines

J-POWER Group Environmental Basic Policy

J-POWER Group Basic Policy on Human Rights

Corporate Governance Report

J-POWER Group Integrated Report 2024  
Supplementary Material:<Environment>J-POWER Group Integrated Report 2024  
Supplementary Material:<Social>J-POWER Group Integrated Report 2024  
Supplementary Material:< Governance>

# External Evaluation/Attestation of Validity

## External Evaluation

### Inclusion in ESG Indexes

Our sustainability efforts have been highly acknowledged by outside parties. As of August 2024, J-POWER has been continuously selected as a constituent of “FTSE Blossom Japan Index” and “FTSE Blossom Japan Sector Relative Index” of FTSE Russell, and “MSCI Japan ESG Select Leaders Index” of MSCI. In 2024, J-POWER was also selected as a constituent of “Morningstar Japan ex-REIT Gender Diversity Tilt Index”. As such, J-POWER has become a constituent of 4 ESG indexes adopted by the Government Pension Investment Fund (GPIF).



FTSE Blossom  
Japan Sector  
Relative Index



FTSE Blossom  
Japan

### FTSE Blossom Japan Index Series

 <https://www.ftserussell.com/products/indices/blossom-japan>

### MSCI Japan ESG Select Leaders Index

 <https://www.msci.com/msci-japan-esg-select-leaders-index-jp>

### Morningstar Japan ex-REIT Gender Diversity Tilt Index

 <https://indexes.morningstar.com/gender-diversity-indexes-jp>

## Sustainability Evaluation

### IR Activities

The J-POWER Group is making every effort to improve its information disclosure through its integrated report and website. In FY2023, J-POWER was selected as Sector Ranking AAA Website in the “All Japanese Listed Companies’ Website Ranking” provided by Nikko Investor Relations Co., Ltd.

### Environment, Climate Change

The Group’s Integrated Report has included information on climate change in the disclosure based on TCFD recommendations since FY2019 and was selected as an “Excellent TCFD Disclosure” by the GPIF’s domestic equity managers in FY2023.

Further, surveys on climate change and water security provided by the CDP were undertaken. In FY2023, climate change evaluation improved from B to A-.

Response Year	FY2021	FY2022	FY2023
Climate change	B	B	A-
Water security	B-	B	B

### Society

J-POWER was selected under the large enterprise category of the 2024 Certified Health & Productivity Management Outstanding Organizations Recognition Program conducted by Nippon Kenko Kaigi and the Ministry of Economy, Trade and Industry. We have also been granted the Ministry of Health, Labour and Welfare’s special next-generation “Platinum Kurumin” certification mark for companies that support childcare.



## Attestation of Validity

J-POWER began issuing an Integrated Report in 2019 and has engaged in dialogues with stakeholders. This year’s Integrated Report focuses on introducing the Medium-Term Management Plan for 2024–2026. The report also shows our commitment for further enhancing corporate value, while achieving the J-POWER Group’s mission of providing a stable supply of energy and addressing climate change through transition of our business portfolio and business models, and deepening of ESG management.

We also enhanced the disclosure of climate change scenario analysis in accordance with the TCFD recommendations and added nature-related financial disclosure based on the TCFD recommendations. We will continue enhancing the information disclosure from both financial and non-financial perspectives.

This report was created in partnership with related departments and the Corporate Planning & Administration Department, which primarily handles its editing. As the person in charge of ESG oversight, I attest that the process for creating the report is appropriate and that the content is accurate.

I hope that stakeholders find this report helpful in gaining a deeper understanding of the Group. We will continue to work to further expand the content of the report and make it useful for dialogue with stakeholders.



Hitoshi Kanno

Representative  
Director President  
and Chief Executive  
Officer (ESG  
Oversight)



# Corporate Profile/Stock Information (As of March 31, 2024)

Corporate Name	Electric Power Development Co., Ltd.
Communication Name	J-POWER
Date of Establishment	Sept. 16, 1952
Headquarters	6-15-1 Ginza, Chuo-ku, Tokyo, Japan
Paid-in Capital	¥180,502,169,192
Number of Shares Authorized	660,000,000
Number of Shares Issued	183,051,100
Number of Shareholders	118,350
Stock Exchange Listing	Tokyo Stock Exchange
Independent Public Accountants	Ernst & Young ShinNihon LLC
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited

## Major Offices

- Headquarters: 15-1, Ginza 6-chome, Chuo-ku, Tokyo
- East Regional Headquarters: Kawagoe-shi, Saitama
- Chubu Regional Headquarters: Kasugai-shi, Aichi
- West Regional Headquarters: Osaka-shi, Osaka

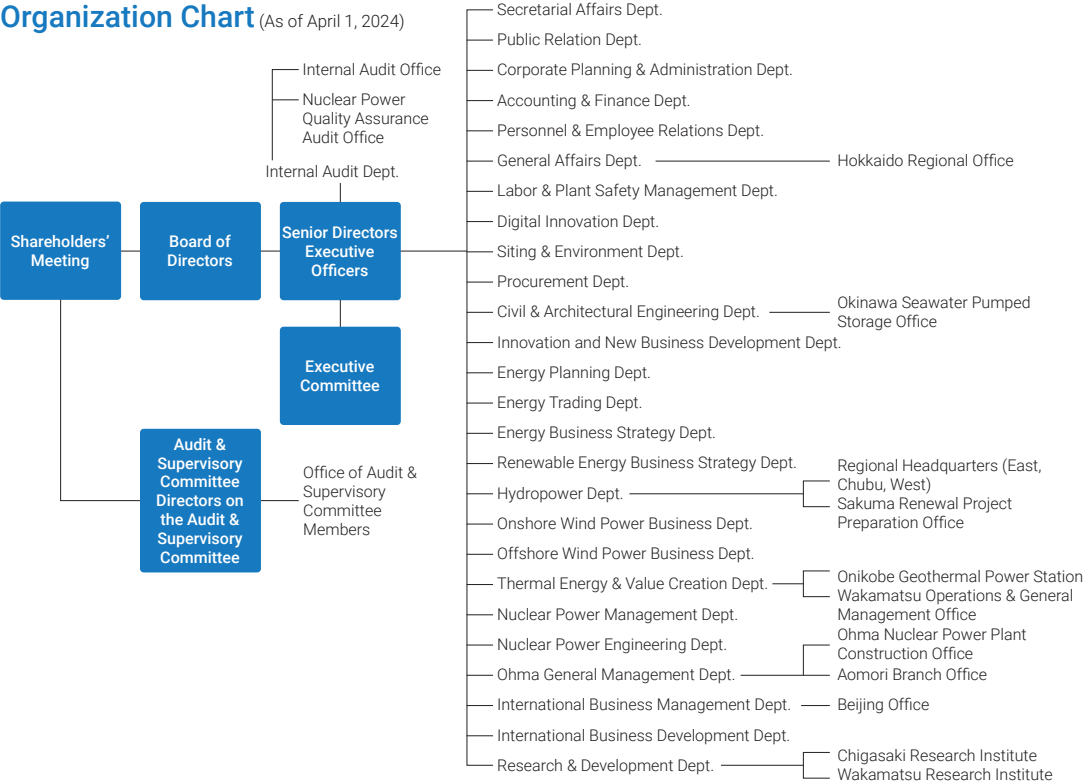
## Major Overseas Subsidiaries

- J-POWER USA Development Co., Ltd.
- J-POWER Generation (Thailand) Co., Ltd.
- J-POWER Consulting (China) Co., Ltd.

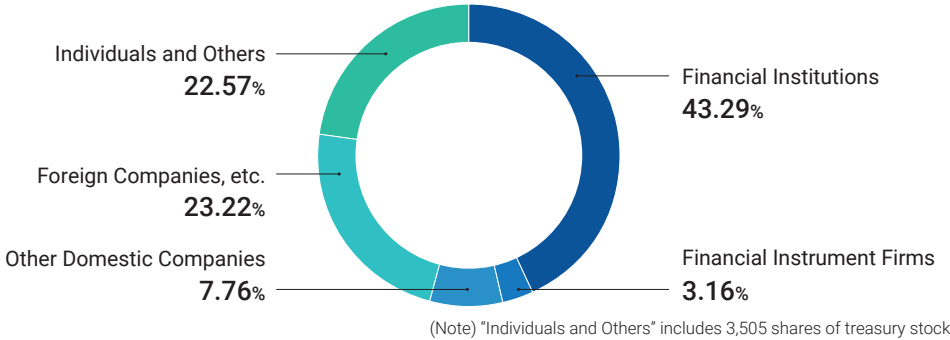
## Major Shareholders (Top 10/As of March 31, 2024)

Name or Designation	Number of Shares Held (Thousands of Shares)	Percentage of Total Shares Issued (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	24,171	13.21
Custody Bank of Japan, Ltd. (Trust Account)	9,491	5.19
Nippon Life Insurance Company	9,152	5.00
JP MORGAN CHASE BANK 385632	7,193	3.93
J-POWER Employees Shareholding Association	5,006	2.74
Mizuho Bank, Ltd.	4,640	2.53
JP MORGAN CHASE BANK 380072	3,542	1.94
Sumitomo Mitsui Banking Corporation	3,293	1.80
Fukoku Mutual Life Insurance Company	3,028	1.65
MUFG Bank, Ltd.	2,541	1.39

## Organization Chart (As of April 1, 2024)



## Composition of Shareholders (As of March 31, 2024)



### Electric Power Development Co., Ltd. Corporate Planning & Administration Department

6-15-1, Ginza, Chuo-ku, Tokyo, Japan <https://www.jppower.co.jp/english/>