



J-POWER Group


Medium-Term Management Plan 2024-2026

May 9, 2024

Electric Power
Development Co., Ltd.

Securities code	9513
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- A vertical image on the left side of the page showing a view of Earth from space. The Earth's horizon is visible, with a bright blue glow from the sun. The landmasses of Asia and Australia are visible, with city lights glowing at night.
- 1 _____
Summary of Medium-Term
Management Plan FY2021-FY2023
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Medium-Term Management Plan
FY2024-FY2026
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 - _____
Appendix

MISSION

Coexistence of a Stable Energy Supply and Response to Climate Change

The J-POWER group will realize the sustainable development of human civilization on Earth by contributing to the transition to a carbon-neutral society while maintaining a stable energy supply toward 2050.

New Tomamae Winvilla Wind Farm



1 Summary of Medium-Term Management Plan FY2021-FY2023

2 Medium-Term Management Plan FY2024-FY2026

3 Priority Items

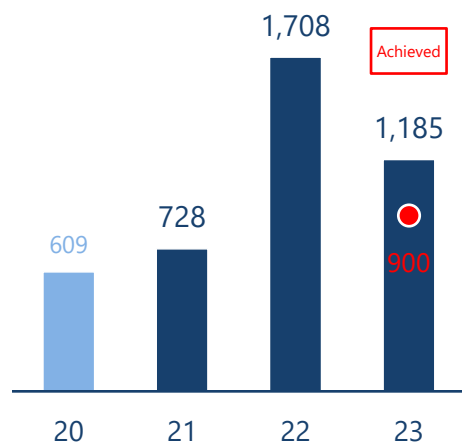
Appendix

Summary of Medium-Term Management Plan FY2021-FY2023 1/2



Performance target

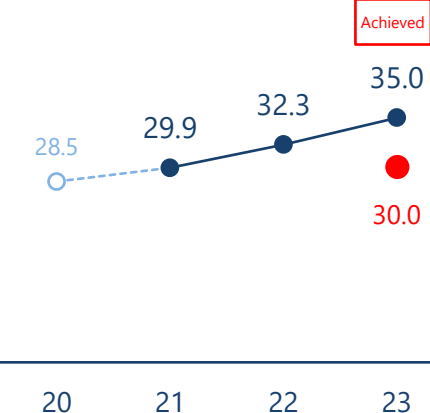
Consolidated ordinary income
hundreds of millions of yen



A target of 90 billion yen achieved

Financial target

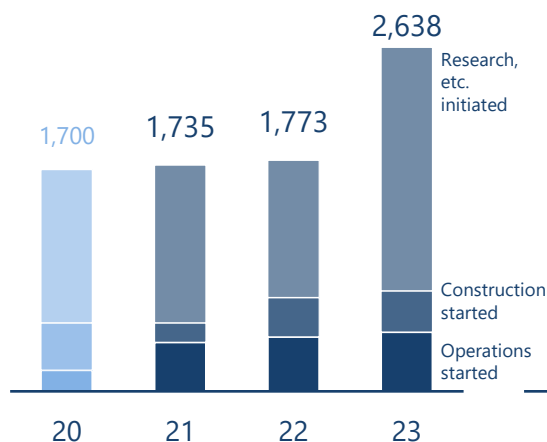
Consolidated equity ratio %



A target of 30% achieved

Renewable energy

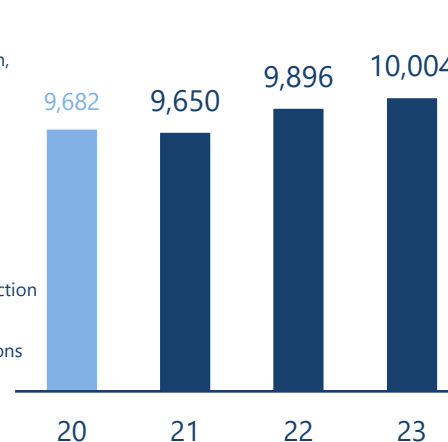
New development MW



Development on a scale of 1,500 MW*1 in sight

Renewable energy

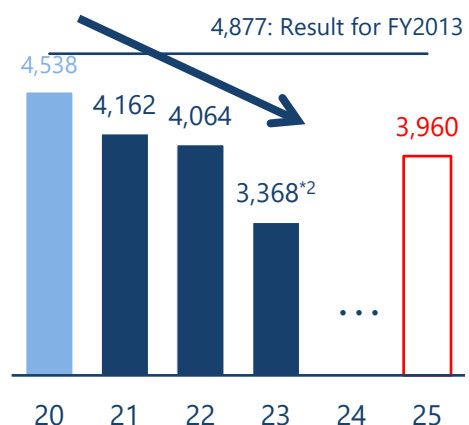
Owled capacity MW



A scale of 10,000 MW achieved

CO2 emissions

Domestic power generation business's CO2 emissions
CO2 in tens of thousands of tons



Steadily reduced toward FY2025 target

Stock market

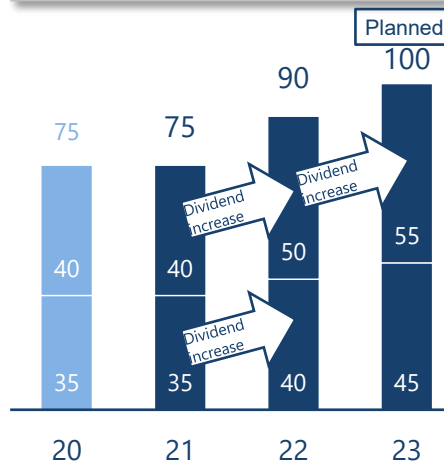
Closing share price yen



Still recovering from the lows since its listing

Return to stockholders

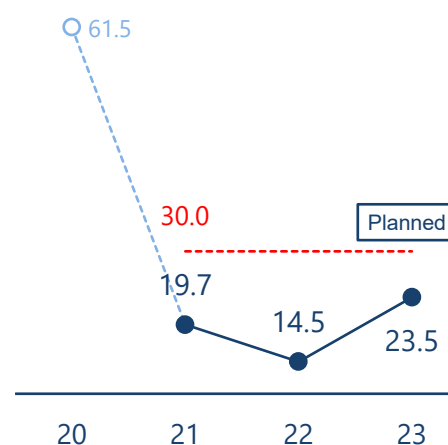
Per-share dividend amount yen



Stable dividend continued and dividend increase determined three times*3

Return to stockholders

Consolidated payout ratio %













The benchmark of 30% not reached

*1 Compared to FY 2017 *2 Preliminary results

*3 The year-end dividend for FY2023 will be put on the agenda for the 72nd General Meeting of Shareholders.

Summary of Medium-Term Management Plan FY2021-FY2023 2/2

Actions	Major initiatives	Results	Future tasks
Action 1 Accelerating the development of CO ₂ -free power sources	 Accelerating the development of renewable energy globally	New development on a scale of 1,500 MW in sight Owned capacity on a scale of 10,000 MW achieved	Improved profitability during price escalation Reliable promotion of offshore wind power projects in Japan
	 Steadily promoting the Ohma Nuclear Power Plant	Progress of conformance review	Early full-fledged construction Improved predictability of investment recovery
Action 2 New value creation utilizing existing assets (Upcycling)	 Upcycling of renewable energy	Determination and promotion of NEXUS Sakuma Project Promotion of repowering of hydro and wind powers	Realization of NEXUS Sakuma Project Securing and improving profitability
	 Promoting GENESIS Matsushima Plan	Progress of environment assessment Determination to discontinue the existing Matsushima Thermal Power Plant	Realization of GENESIS Matsushima Plan Realization of transition at other thermal power plants
	 Initiatives for early implementation of CCS	Establishment of a joint venture between ENEOS Group Research and consideration as an advanced CCS business	Development of a CCS value chain based on implementation in own thermal power plants
Action 3 Challenges to new business areas	 Pursuing the possibility of CO ₂ -free hydrogen (Including CO ₂ -free ammonia)	Involvement in the hydrogen/ammonia value chain and consideration of power generation applications	Participation in hydrogen/ammonia production and supply projects Accelerated studies of power generation use
	 Accelerating the social implementation of innovations	Establishment of external networks and enhanced internal collaboration Investing in 13 start-up companies	Shift from exploration to business development
Action 4 Enhancement of business foundation	 Expansion of overseas business foundation	Started operation of three large projects (Triton Knoll in Britain, Jackson in US, Batang in Indonesia)	Reconfiguration of business portfolio Accelerated payback of investment
	 Efforts for improvements in capital efficiency	Replacement of business portfolio, including sale and reinvestment of assets	Establishment of a system to measure capital efficiency by business and take appropriate remedial measures
	 Promotion of sustainable management	Establishment and raising of CO ₂ reduction plans Identification of materiality and setting of targets (KPI)	Establishment of PDCA cycle Further deepening



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**Medium-Term Management Plan
FY2024-FY2026**

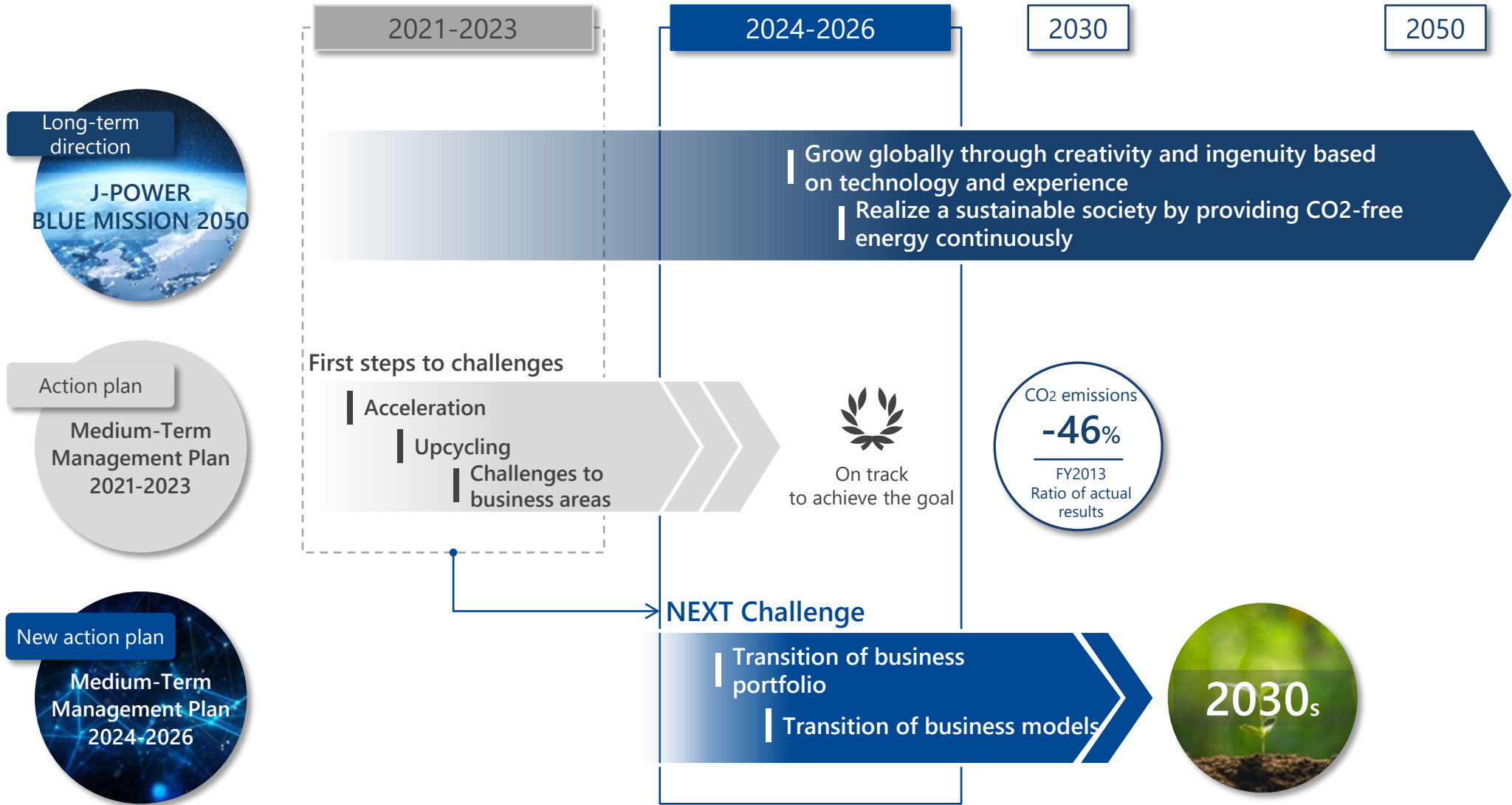
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Positioning of Medium-Term Management Plan FY2024-FY2026



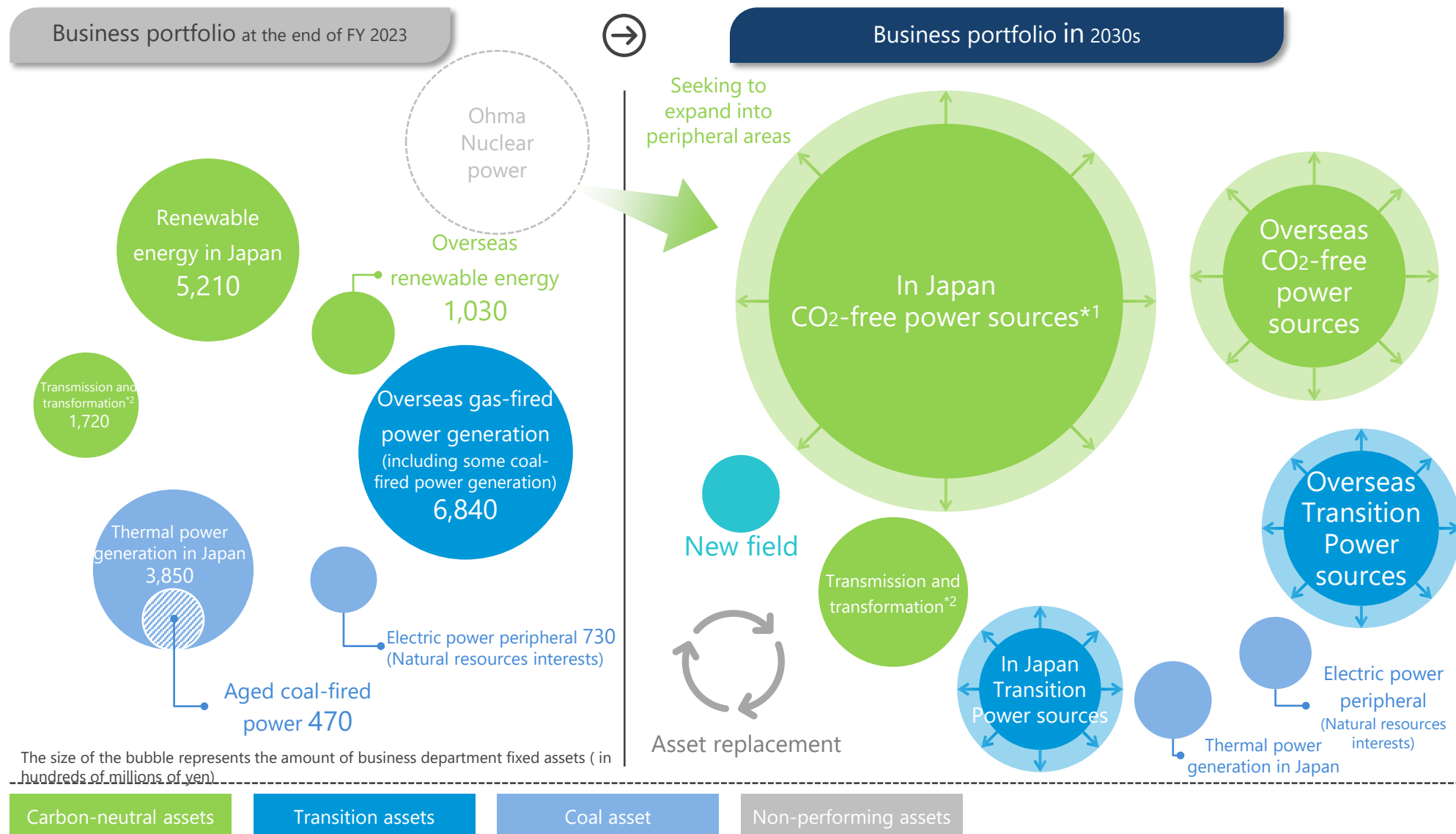
By continuing our initiatives to date, we have gained a certain level of prospects for achieving our 2030 CO2 reduction target. Looking to the world beyond 2030, the J-POWER group will take on the challenge of further transition and the development of carbon-neutral assets.



Targeted business portfolio 2030s

This plan will be updated, reviewed, and refined as needed according to the government's GX policies (including the energy master plan, global warming mitigation measures, NDC), the electricity supply and demand situation, the electricity system design, the progress of industrial development, and other conditions.

With the aim of accelerating the transition to carbon-neutrality after 2030, we will promote the transition of thermal electric power generation in Japan and aim to transform our business portfolio to one centered on carbon-neutral assets both domestically and abroad while being mindful of capital efficiency.



*1 Domestic renewable energy, CO₂-free thermal power and Ohma nuclear power

*2 Transmission and transformation business is an initiative of J-POWER Transmission.

Direction of thermal power generation transition in Japan

This plan will be updated, reviewed, and refined as needed according to the government's GX policies (including the energy master plan, global warming mitigation measures, NDC), the electricity supply and demand situation, the electricity system design, the progress of industrial development, and other conditions.

In accordance with the BLUE MISSION 2050 roadmap, inefficient coal-fired power plants will be phased out, while high-efficiency thermal power plants will be selected based on the characteristics of each location to achieve low-carbon and decarbonization while contributing to stable power supply.

Image of transition

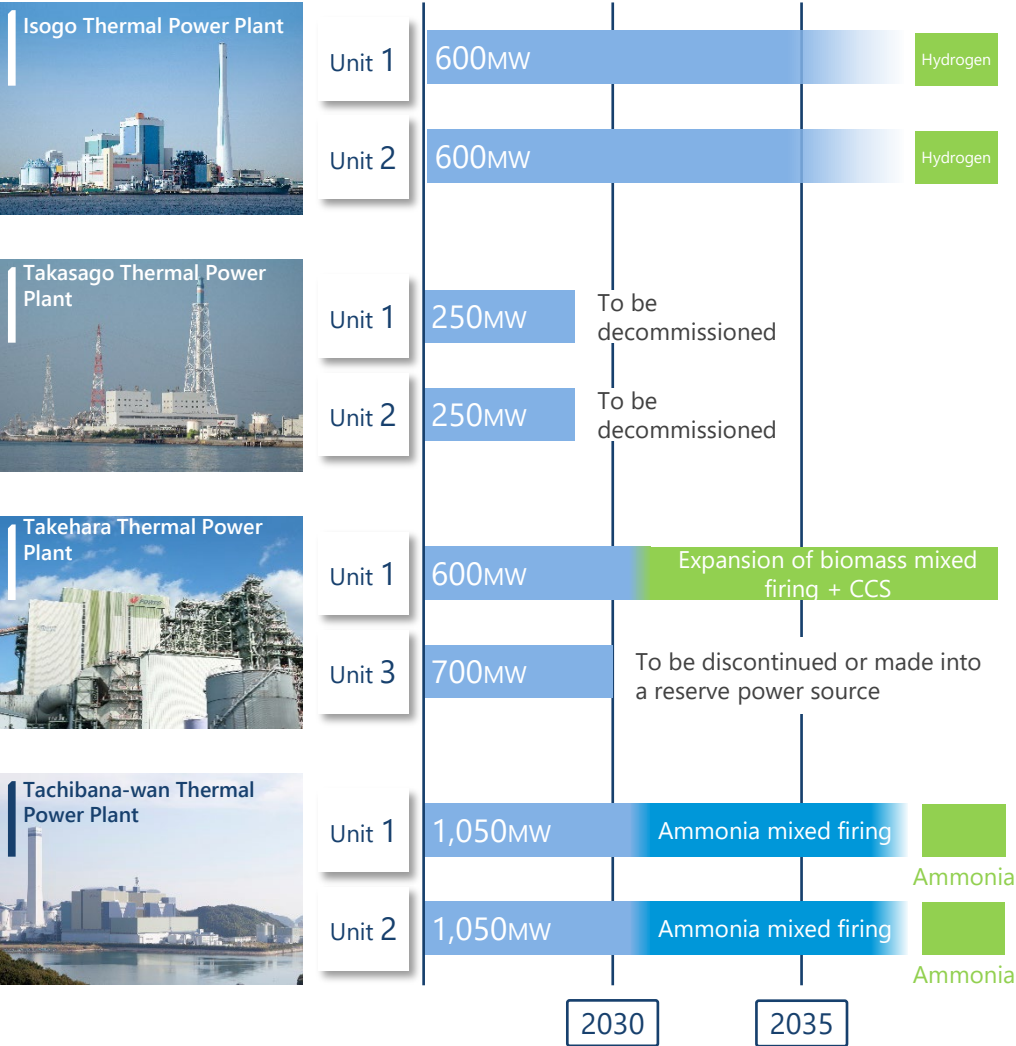
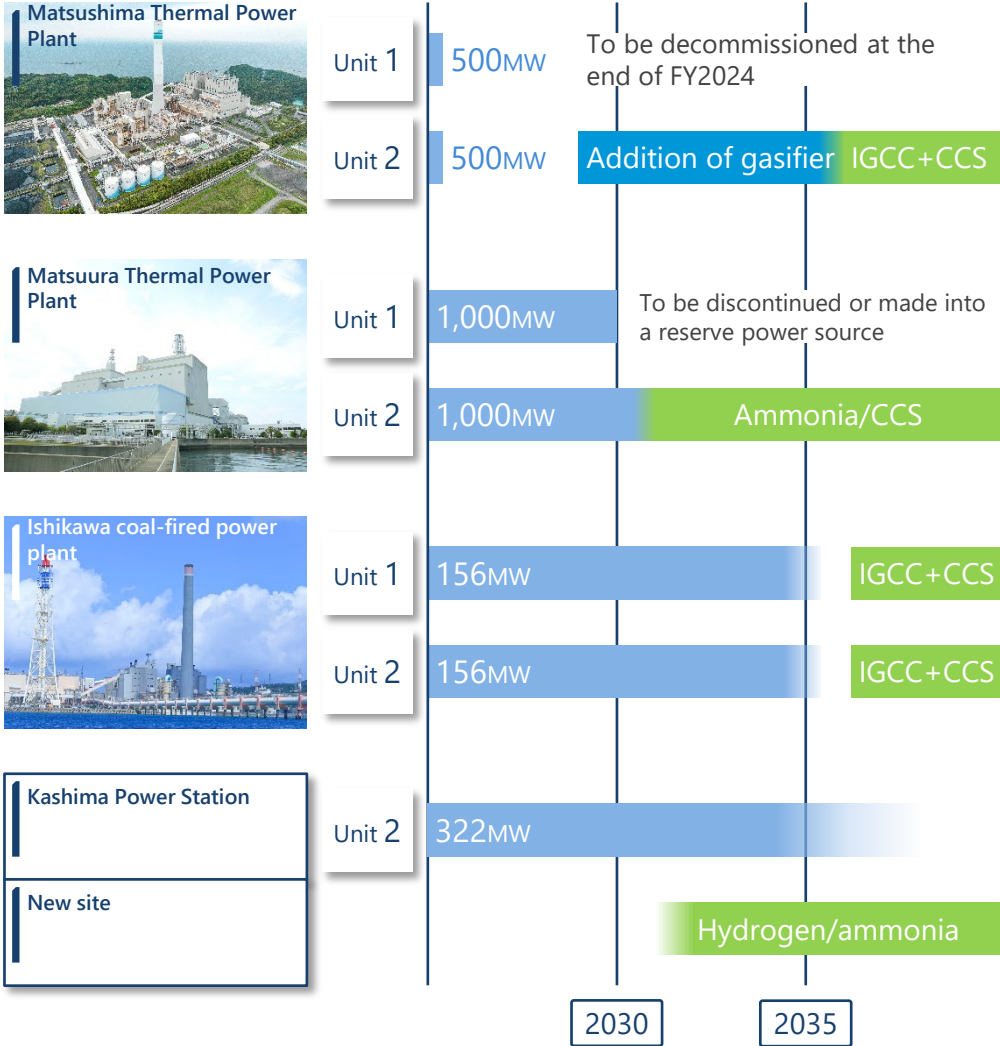


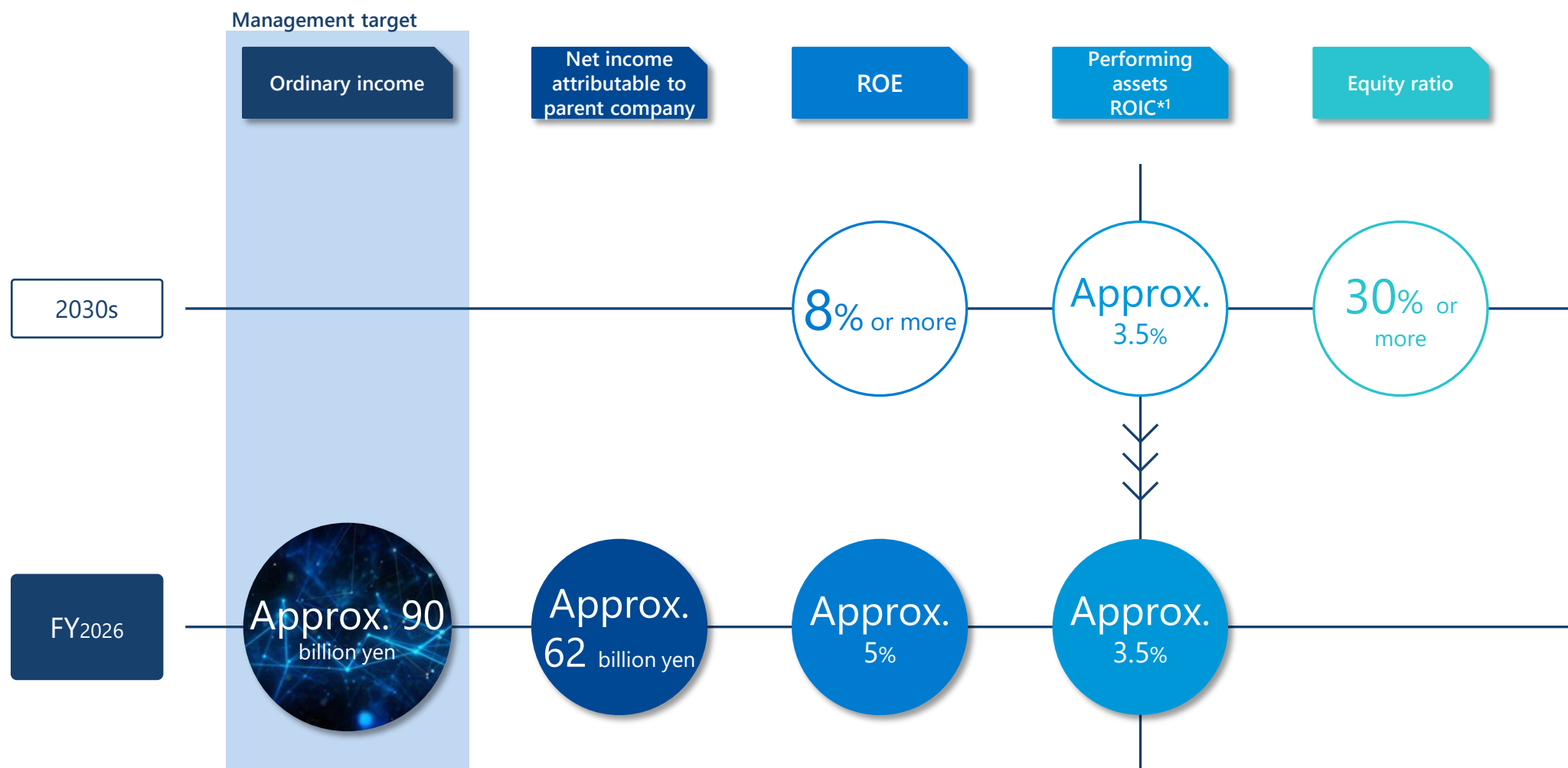
Image of transition



Management target

While the impact of climate change policies 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 income in fiscal 2026, while keeping in mind the level of ROIC required for the future.



Assuming a ratio of non-performing assets of around 10%, the level of ROIC for operating assets required to achieve a ROE of 8% or more in the 2030s is set at around 3.5%. Work on converting construction in progress and other assets into operational assets while aiming for a performing assets ROIC of around 3.5% from FY2026.

Return to stockholders

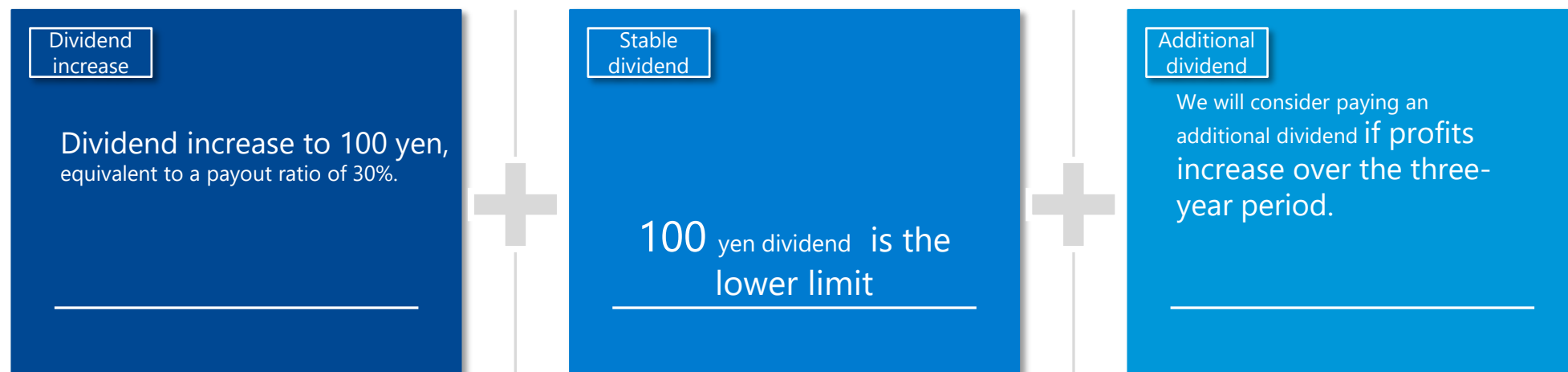
We will maintain a policy of stable and continuous dividend payments.

We will pay a stable dividend of 100 yen per share (forecast), and will consider paying an additional dividend if profits increase over the three-year period.

Basic policy on return to stockholders

Excluding short-term profit fluctuation factors, we aim for a consolidated dividend payout ratio of 30%, and strive for stable and continuous enhancement of returns to shareholders based on profit levels, performance prospects, financial conditions, and other factors.

Return to stockholders FY2024-FY2026



Capital allocation FY2024-FY2026



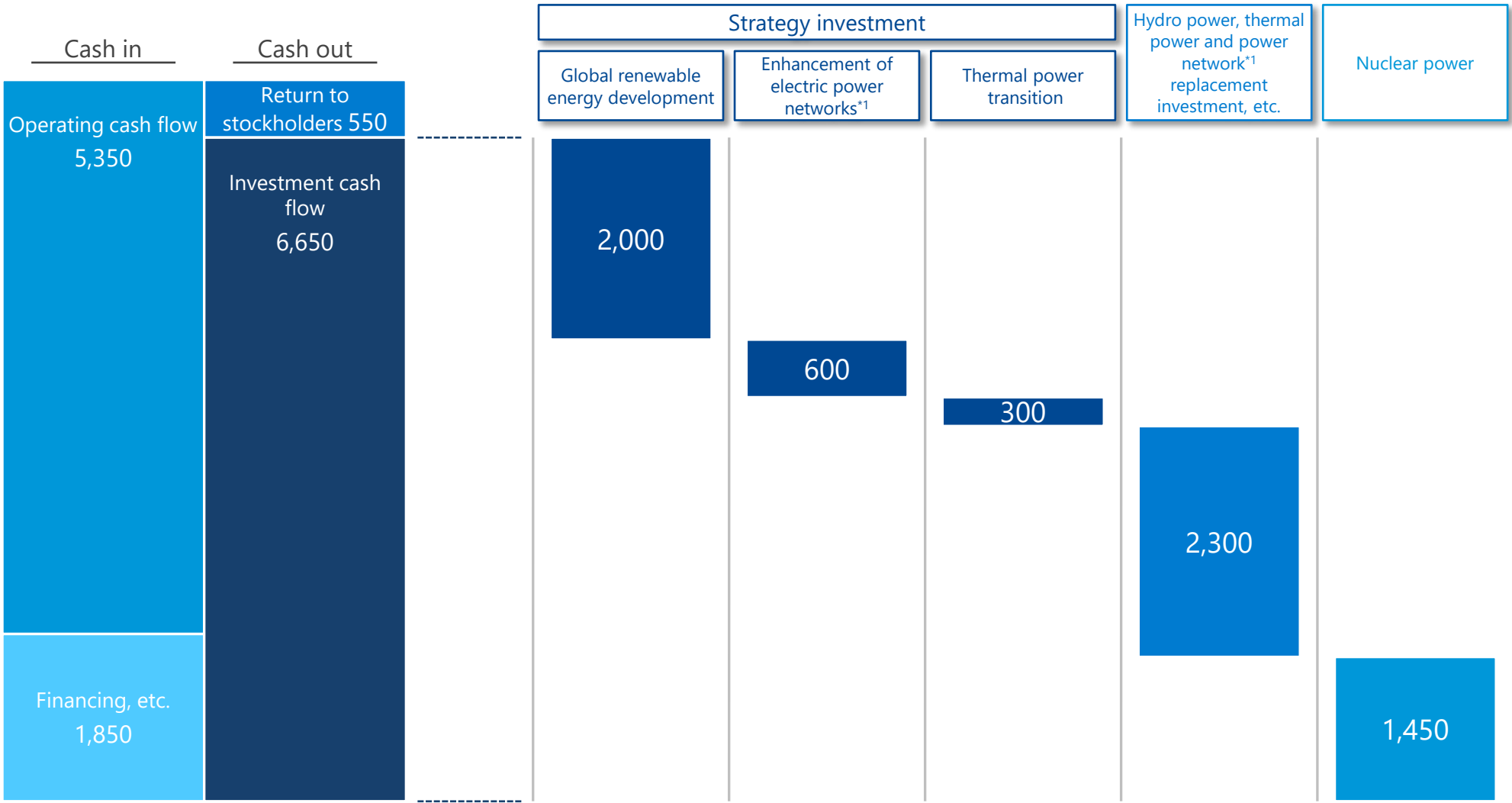
We plan to make strategic investments of approximately 300 billion yen over the next three years, with a view to making 700 billion yen in strategic investments by FY2030.
We will prioritize investments in domestic and international carbon-neutral assets that support sustainable growth, with a focus on capital efficiency and profitability.

Allocation plan FY2024-FY2026 In hundreds of millions of yen



Breakdown of investment cash flow

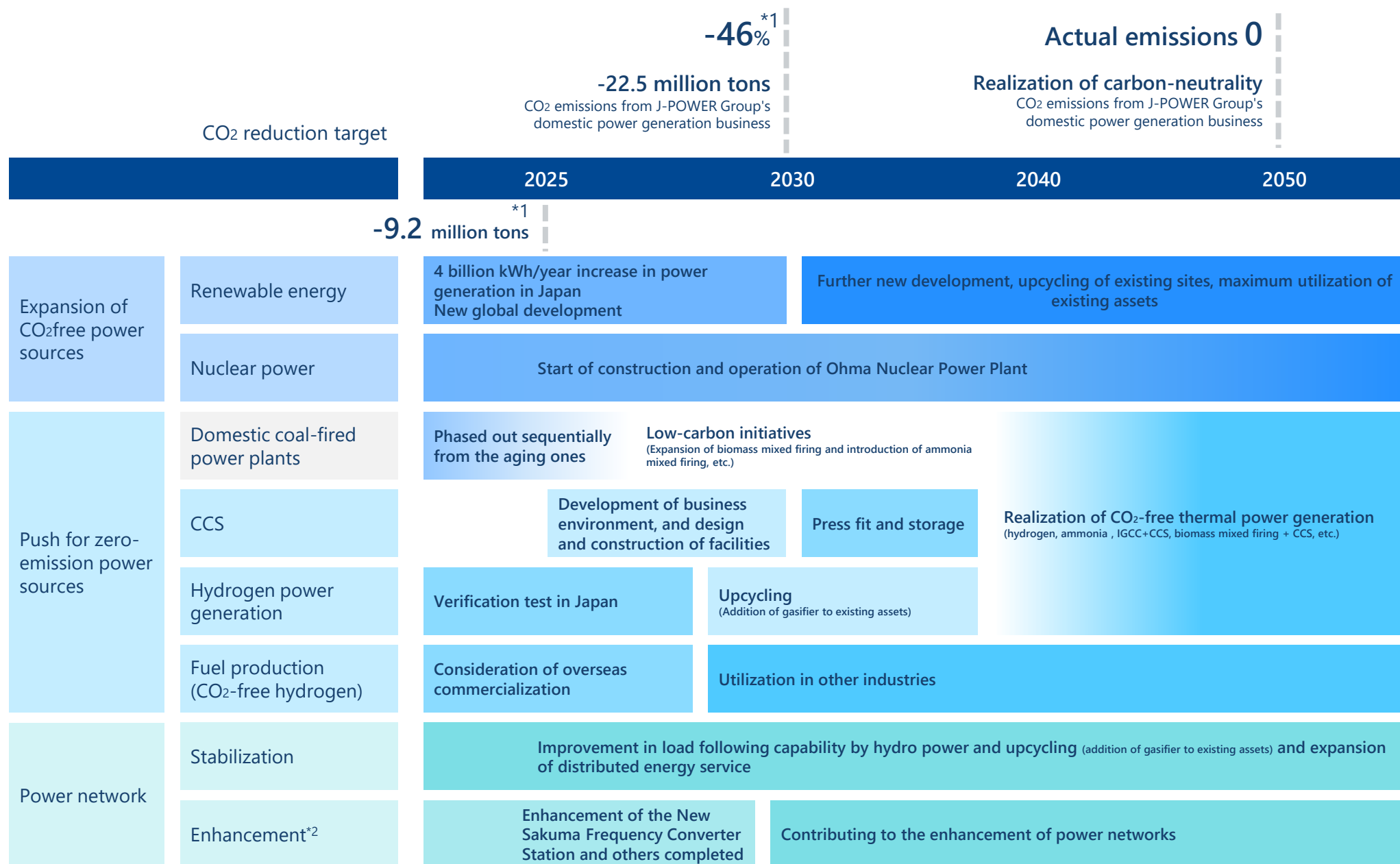
In hundreds of millions of yen



*1 The enhancement of the electric power network is an initiative of J-POWER Transmission.

BLUE MISSION 2050 road map

This plan will be updated, reviewed, and refined as needed according to the government's GX policies (including the energy master plan, global warming mitigation measures, NDC), the electricity supply and demand situation, the electricity system design, the progress of industrial development, and other conditions.





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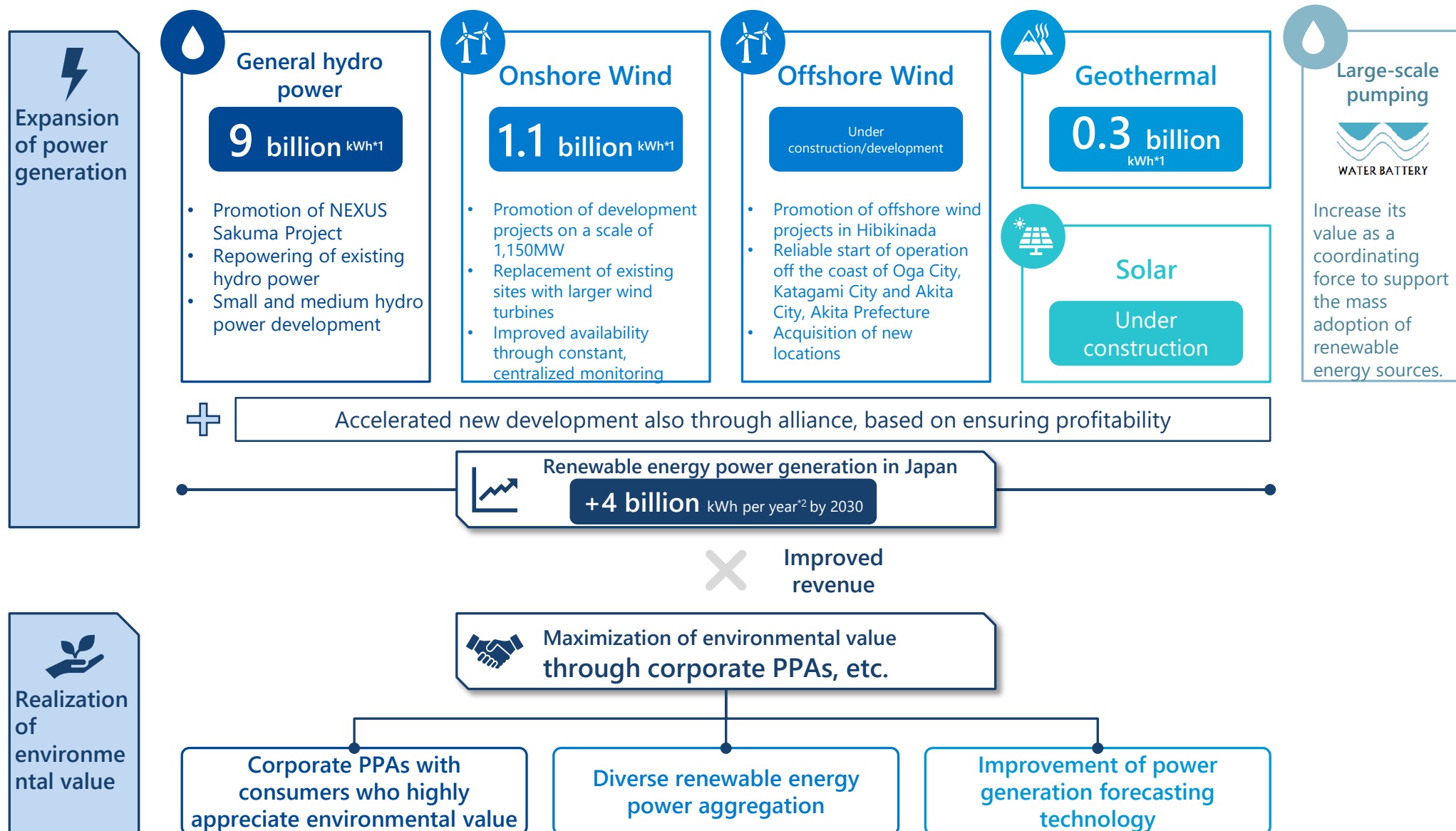
Appendix

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具体的な取組項目

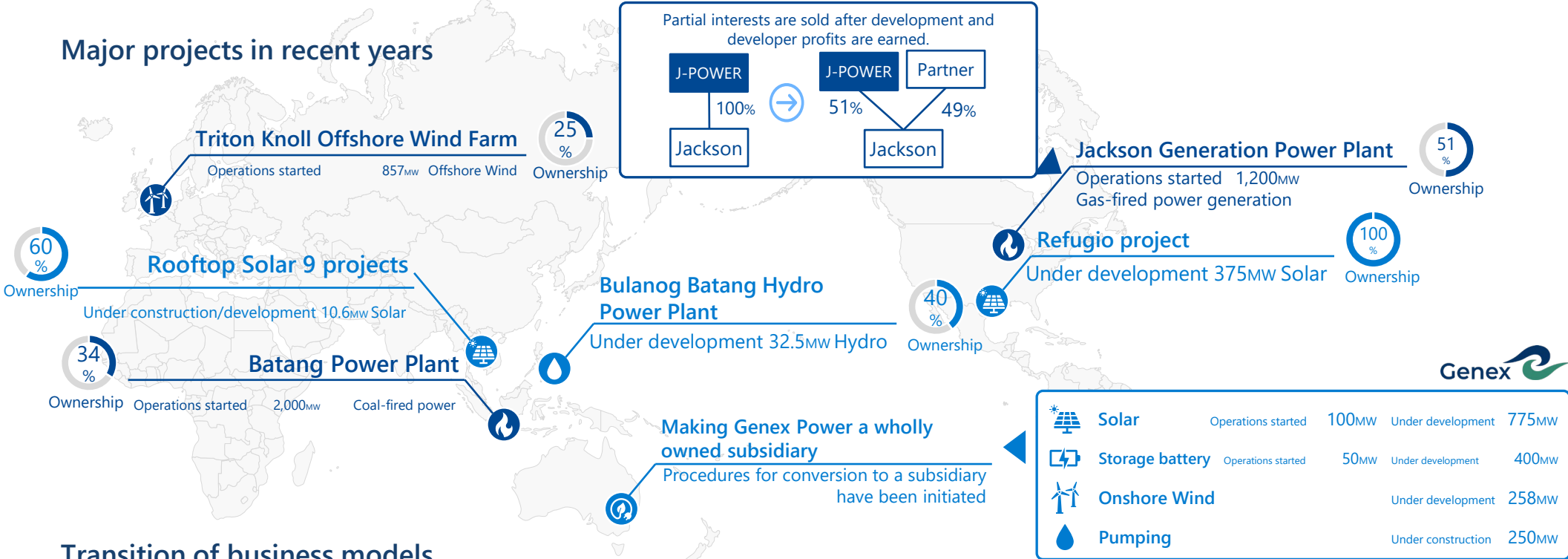
<div>01</div> <div>Growth strategy</div> <div>Establishment and growth of sustainable revenue stream</div>	<div> Renewable energy in Japan Increased revenue by expanding power generation and realizing environmental value </div> <div> Overseas Generating returns over multiple time horizons while improving capital efficiency </div>
<div>02</div> <div>Transition strategy</div> <div>Strategies for business portfolio in 2030s</div>	<div> Hydrogen/ammonia Securing decarbonization technologies by pursuing multiple opportunities </div> <div> Transmission and transformation*1 Promotion of enhancement plan of the Sakuma Frequency Converter Station and pursuit of new business opportunities </div> <div> Ohma Nuclear power Steady promotion with a view to the use of long-term decarbonization power source auctions </div> <div> Innovations Creation of new revenue streams through collaboration with start-ups, etc. </div>
<div>03</div> <div>Business management</div> <div>Improvement of profitability and investment efficiency</div>	<div> Department management Enhancement of business portfolio management according to business characteristics by changing segments </div> <div> Investment efficiency Autonomous management of the sector through ROIC, strengthening of initiatives to improve capital efficiency </div>
<div>04</div> <div>Increased competitiveness</div> <div>Enhancement of group's competitiveness</div>	<div> Human resources Continued development of diverse human resources who will become pioneers of wisdom and technology </div> <div> DX Improved group competitiveness through the creation of 3Ps "Yoryoku" of human resources </div>
<div>05</div> <div>Sustainability</div> <div>Deepening of ESG management</div>	<div> ESG From the development of the promotion system to the stage of deepening </div>

As Japan's leader in renewable energy development with a history of more than 70 years, we aim to increase revenue and achieve further growth by expanding power generation (+4 billion kWh) and realizing environmental value by leveraging our renewable energy assets and knowledge we have built up to date.



We aim to expand our business segments and business areas while improving capital efficiency, centering on the acquisition of developer profits not only in the power generation business but also in renewable energy and other businesses, and to shift to a business model that can generate profits over a diverse time horizon.

Major projects in recent years



Transition of business models

Target business	Business segment	Business area	Profit generation timing	Capital efficiency
Decarbonization	Collective strength	Expansion of priority areas	Multiple time horizons	Improved capital efficiency
Renewable energy	Investment	Southeast Asia	Short-term	Reconfiguration of asset portfolio/business portfolio
Gas-fired power generation (including the replacement of existing facilities)	Independent/joint development	USA	Medium-term	
Distributed resources	Consulting	Australia	Long-term	
	O&M service	Europe & Middle East		

In addition to promoting the GENESIS Matsushima Project to commercialize coal gasification power generation technology for future CO₂-free hydrogen power generation, we will pursue various opportunities from upstream to downstream in the supply chain to secure decarbonized technologies.



Manufacturing and supply



Power generation



CCS

Pursuit of coal gasification technology



Pursuit of diverse decarbonization options

Osaki Coolgen project



Operation of a larger gasifier
Demonstration test of gas turbine operation with highly concentrated hydrogen

Commercializing

J-POWER GENESIS



Aiming for CO₂-free hydrogen power generation in the future
with gasification technology at the core



Overseas blue hydrogen/ammonia

Research and consideration of participation in overseas upstream projects



Overseas green hydrogen/ammonia

Research and consideration of participation in overseas upstream projects



Coal hydrogen in Australia

Consideration of hydrogen production and supply by lignite gasification



Green hydrogen in Japan

Consideration of the feasibility of green hydrogen in Japan



Utilization of hydrogen/ammonia power generation

Consideration of the procurement, transportation, acceptance, and combustion of hydrogen/ammonia



CCS in Japan

Initiatives to implement CCS with the ENEOS Group



Overseas CCS

Pursuing the possibility of CO₂ retention overseas

Green hydrogen/ammonia

► Acquisition of the development rights for a large-scale green hydrogen/ammonia production project in Oman

- Consortium with Yamna and EDF signs business development agreement with Hydrom^{*1}, an Omani government agency
- Approximately 4.5 GW of solar power, wind power, and storage batteries and 2.5 GW of water electrolyzers to be installed
- A detailed project study will be conducted in the future to confirm the feasibility of the project

We will steadily promote the J-POWER Transmission's Sakuma Frequency Converter Station enhancement plan to contribute to the wide-area operation of the power system.

Building on our achievements to date, we will pursue business opportunities to help strengthen the power network to support the mass adoption of renewable energy.

Transmission and transformation facilities

J-POWER Transmission owns and operates critical transmission and transformation facilities throughout Japan, including the cross-regional interconnection facilities that interconnect the grids of different electric power companies.

Facilities in operation	Transmission lines Total length: Approximately 2,400 km	Substations 4 locations
	AC/DC converter stations 4 locations	Frequency converter stations 1 location



The transmission and transformation business is handled by J-POWER Transmission Network Co., Ltd., a wholly owned subsidiary.

Construction of the New Sakuma Frequency Converter Station and others

Start of construction in April 2022
Operation scheduled to start in FY2027

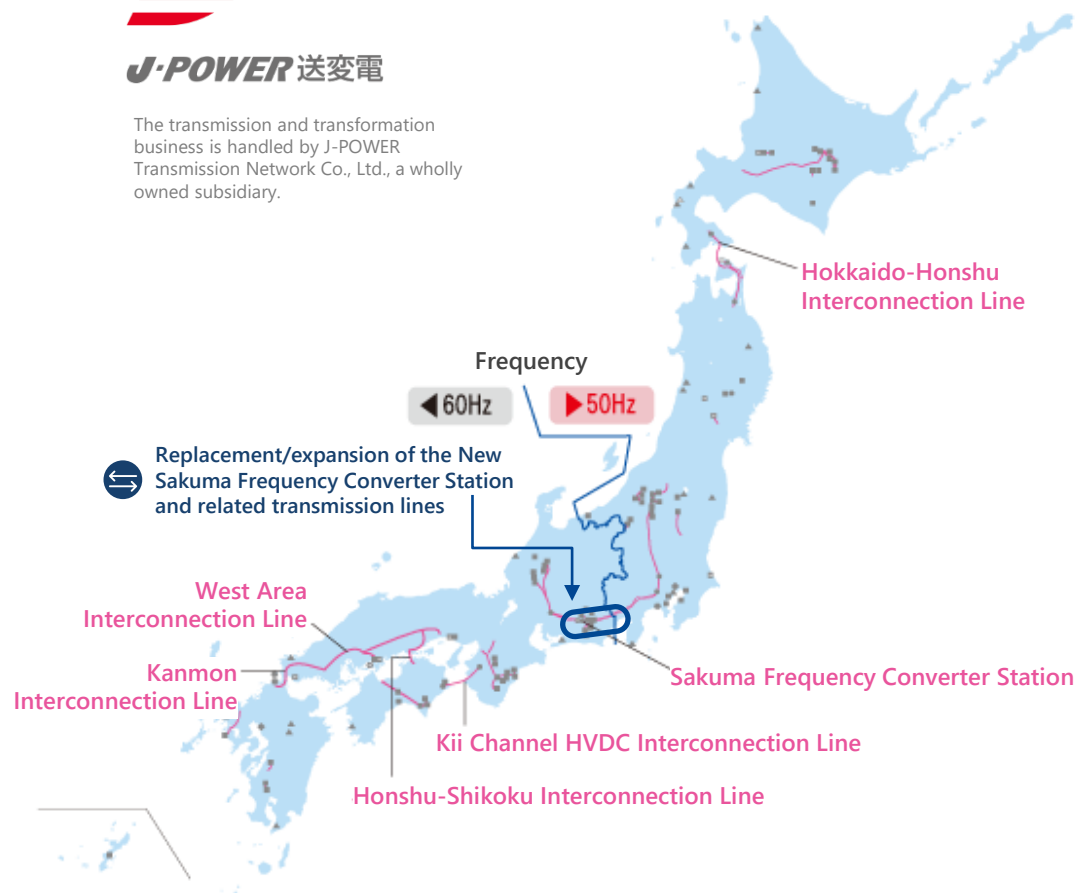
J-POWER will steadily promote the replacement/expansion of the New Sakuma Frequency Converter Station and related transmission lines to meet consumers' expectations for enhancing the capability to interchange electric power between 50Hz in eastern Japan and 60Hz in western Japan. J-POWER will continue to pursue business opportunities contributing to strengthening power networks.

Today's most pressing issues also include the need to sophisticate maintenance due to over-aging deterioration and strengthen resilience against intensifying natural disasters. J-POWER will continue to contribute to a stable power supply through these efforts.



Construction of the New Sakuma Frequency Converter Station and others

- New Sakuma Frequency Converter Station **300MW**
- Sakuma East Trunk Line, etc. **Approx. 138 km**



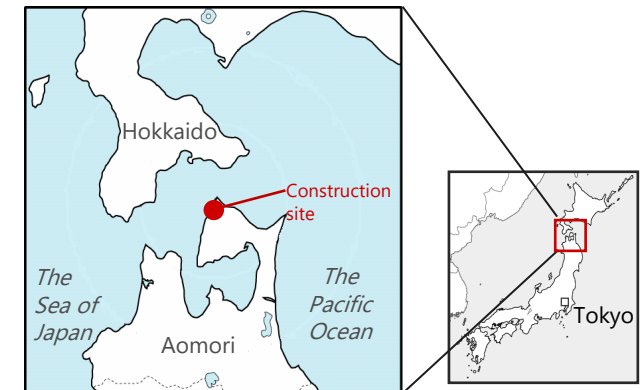
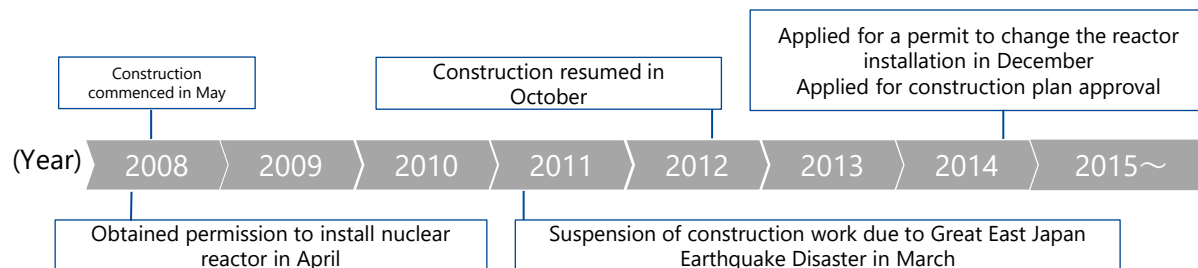
As a large-scale CO₂-free power source and a power plant that supports the nuclear fuel cycle, we will promote the Ohma Nuclear Power Plant Project, which contributes to climate change response and Japan's energy security, with the highest priority on safety assurance, while also keeping in mind the use of the Long-Term Decarbonization Power Auction Program.

Overview of Ohma Nuclear Power Plant Project

Construction site	Ohma-machi, Shimokita-gun, Aomori Prefecture
Capacity	1,383MW
Reactor type	Advanced Boiling Water Reactor (ABWR)
Fuel	Enriched uranium Mixed (uranium and plutonium) oxide
Start of construction	May, 2008
Start of operations	To be determined



Process (Results)



Through investment and collaboration with startups, etc., the J-POWER Group will seek to create value by integrating its technologies and expertise, and will establish a new organization (newly established as the “Innovation Promotion Department” in April 2024) to develop and accelerate the results of value creation into new profitable businesses.

Examples of major collaboration with funded start-ups

Green Earth Institute Co., Ltd.



Combined business initiatives such as biomass fuel production from waste oil palm trees

PowerX Manufacturing, Inc.



Initiatives to build a new power grid with storage batteries and to create new services that contribute to the realization of a decarbonized society

WOTA CORP.



Initiatives to create new services by combining compact distributed water treatment technology and related products with our expertise in power generation

Nippon Fiber Corporation



Production of high-performance long fibers from thermal power plant coal ash and commercialization efforts

Kyoto Fusioneering Ltd.



Strengthened collaboration on peripheral technologies for fusion power generation, the ultimate energy source

As of March 31, 2024, we made direct investments in a total of 12 companies, including the following, in addition to the five companies listed above.

- GITAI USA Inc
- BELLDISEIGN Inc.
- Scalar, Inc.
- Save Medical Corp.
- VUILD, inc.
- AREANO Inc.
- WASSHA Inc.

We will seek to create new value with startups and businesses other than those in which we have invested.

Through the introduction of ROIC, we aim to improve company-wide ROIC by encouraging business departments to operate autonomously and to consider and implement capital efficiency measures based on the characteristics of each business.

Change in reportable segment

Business department



Business management

Business department

Business department ROIC

Business department NOPAT*1 + Business department investment gain (loss) on equity method

Fixed assets of business departments

Promotion of autonomous business operations and the consideration and implementation of capital efficiency measures based on business characteristics



Company-wide

Non-performing assets	Interest-bearing debt
Performing assets	Shareholders' equity

ROIC

NOPAT*2 + investment gain (loss) on equity method

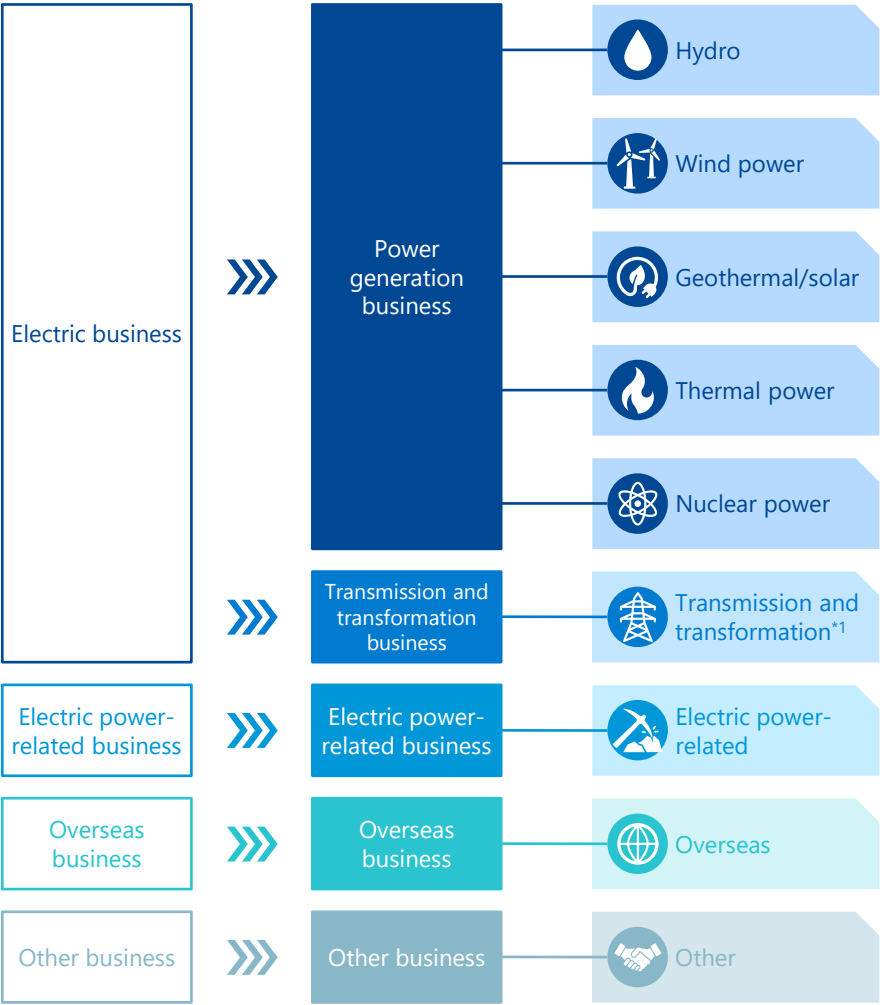
Interest-bearing debt + shareholders' equity

Performing assets ROIC

NOPAT*2 + investment gain (loss) on equity method

Interest-bearing debt + shareholders' equity – non-performing assets

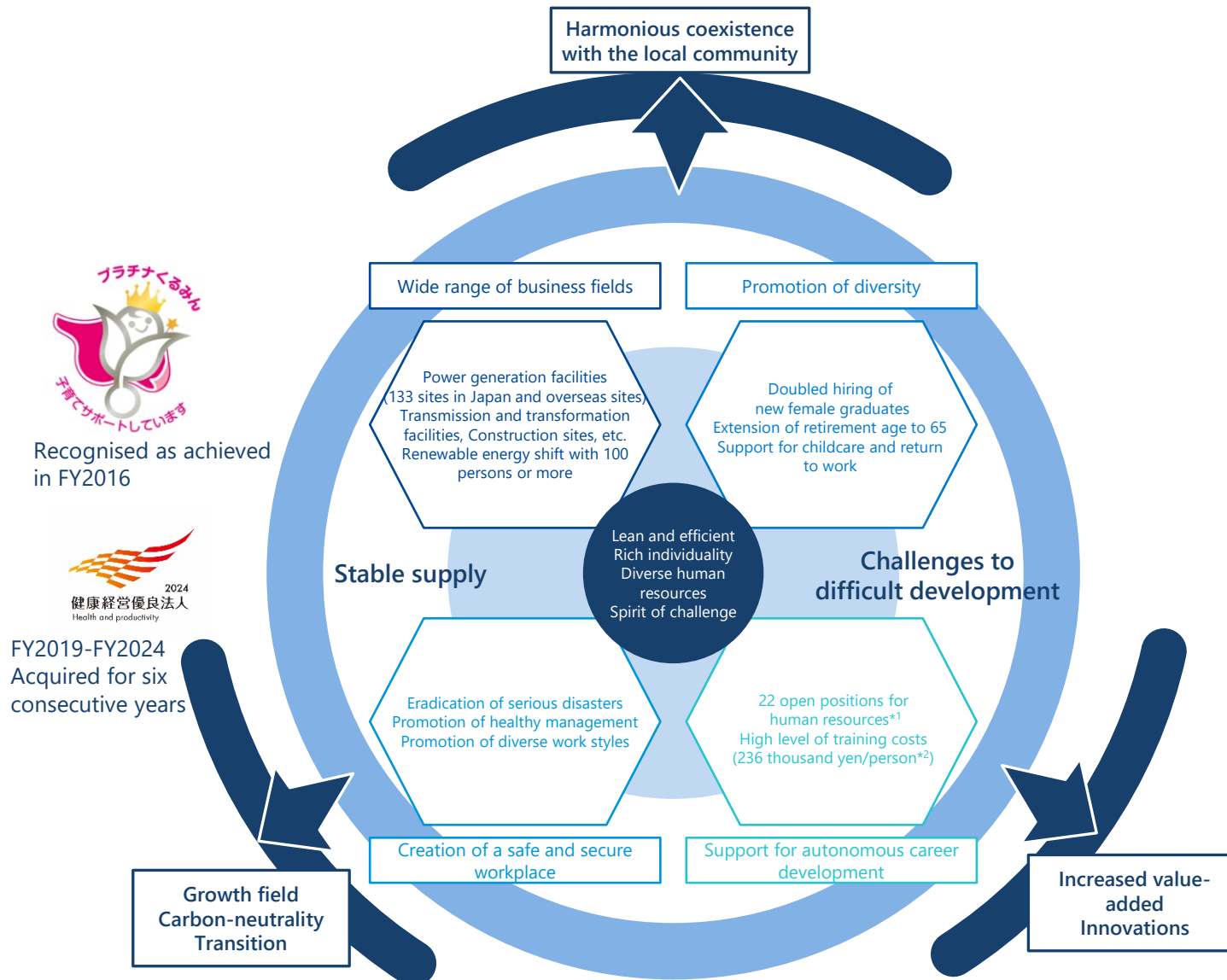
Review of business portfolio, reduction of corporate expenses and assets, etc.



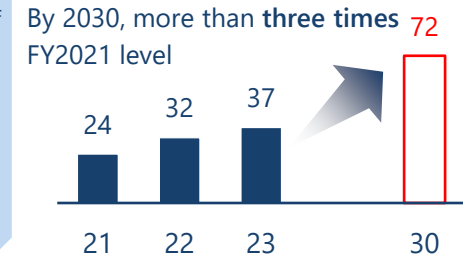
*1 The transmission and transformation business is an initiative of J-POWER Transmission.

*2 After-tax operating income (including non-operating and extraordinary gains/losses that can be directly charged to business departments)

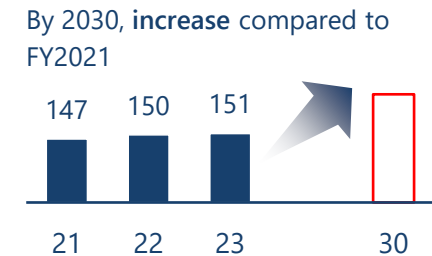
We will contribute to solving various social issues facing Japan and the world by respecting individuals, ensuring opportunities for diverse work experiences, developing and improving human resources systems that support employees' challenges, and continuing to nurture diverse human resources who will become pioneers of wisdom and technology.



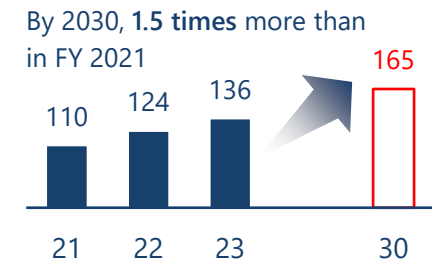
Promotion of women to managerial positions persons



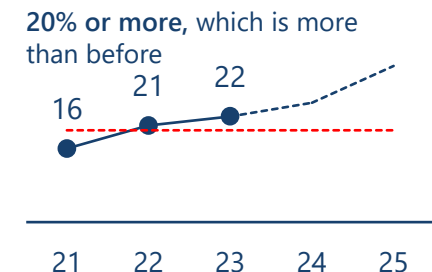
Promotion of foreigners to managerial positions persons



Promotion of experienced hires to managerial positions persons



Percentage of women among new graduates hired %

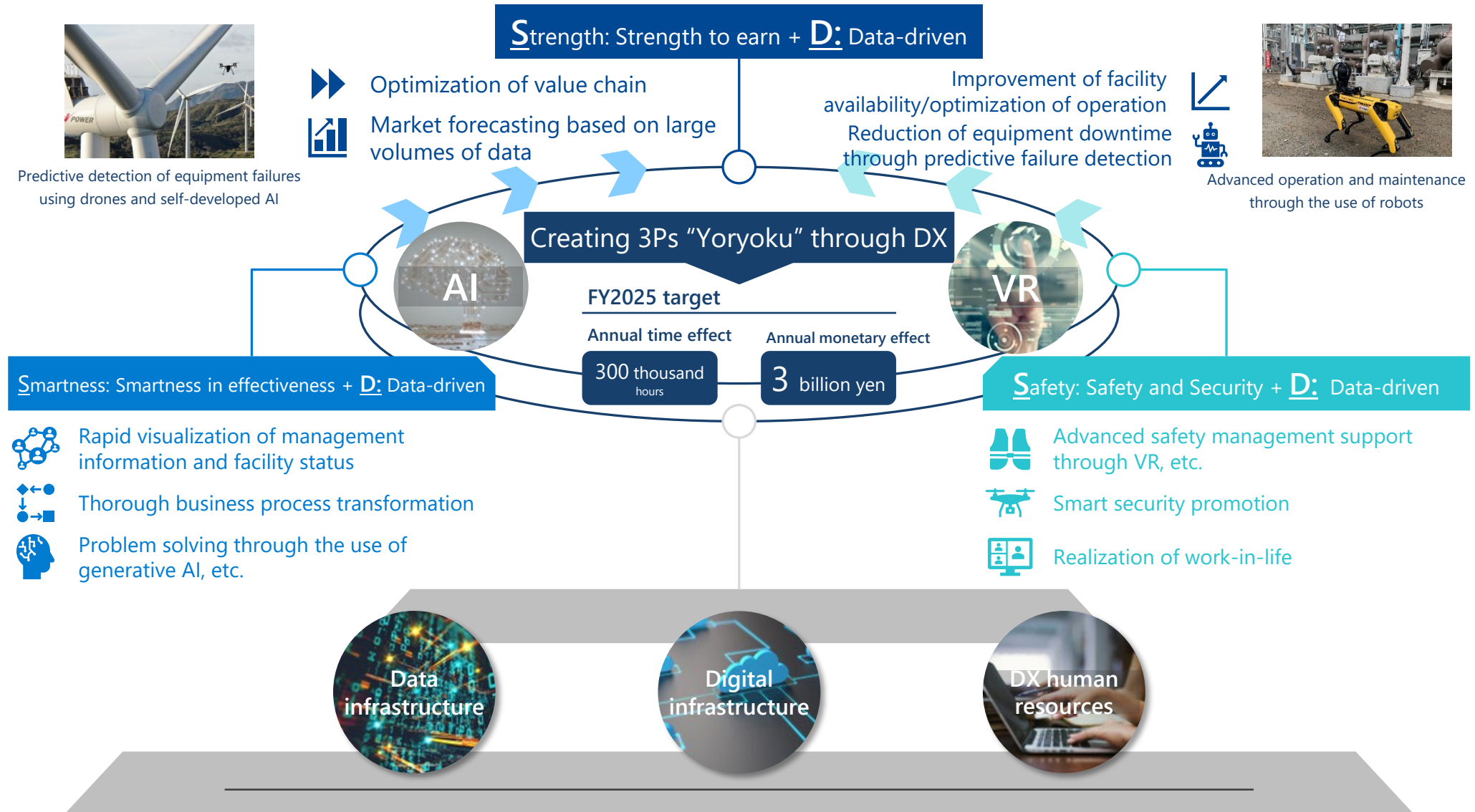


*1 Cumulative results up to FY2023 *2 FY2023 results

*3 Results for the year in which recruitment activities are carried out; actual induction is in April of the following year.

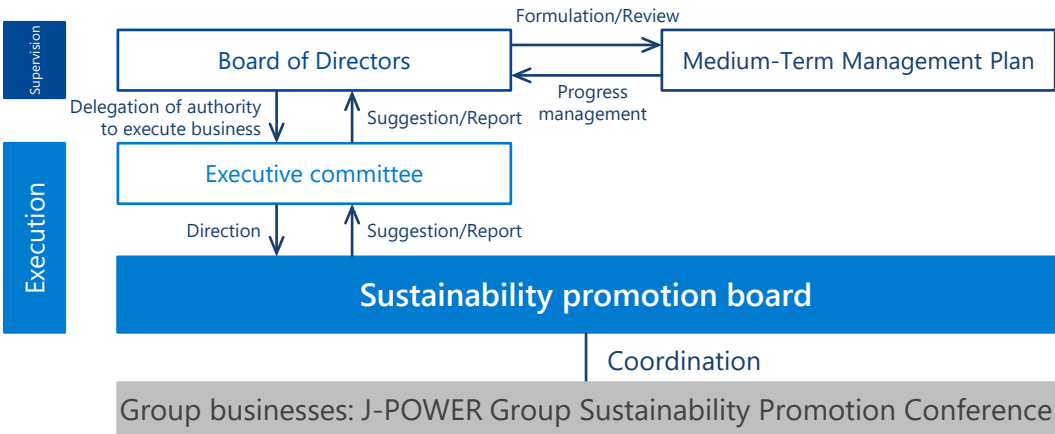
The J-POWER Group aims to create the 3Ps "Yoryoku" (powers of potentiality, productivity and predictivity*) of human resources and improve the Group's competitiveness by promoting specific measures to realize its DX promotion vision "DX 3S+D."

* A term coined to describe the following: [Power of potentiality] The power of leeway created by 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] Ability to predict and foresee based on data analysis

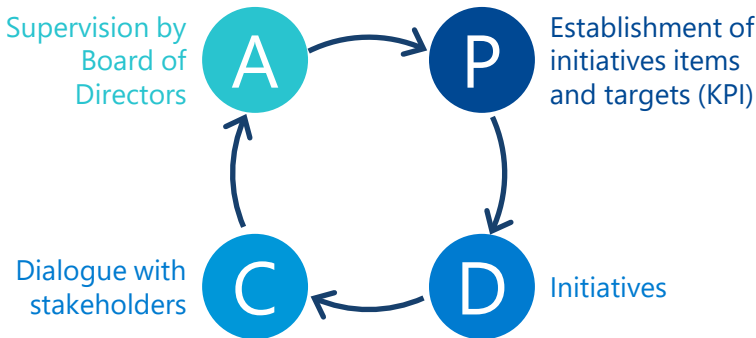


Based on the ESG management promotion system that has been developed so far, we will deepen ESG management by implementing the PDCA cycle.


Sustainability promotion system



PDCA cycle



Materiality	Achievements to date	Initiatives
<div></div> <div>Energy supply</div>	Formulation of "BLUE MISSION 2050" Establishment of new CO ₂ reduction target for FY2025	Steady promotion of "BLUE MISSION 2050" ➢ Steady achievement of CO ₂ reduction target for FY2025 ➢ Clarification of path toward achieving CO ₂ reduction target for FY2030
<div></div> <div>Response to climate change</div>	Raising of CO ₂ reduction target for FY2030	Enhanced TCFD (climate change) disclosure Implementation of disclosure of TNFD (natural capital)
<div></div> <div>Respect for people</div>	Establishment of basic human rights policy	Steady progress toward achieving diversity target for FY2030 Implementation and establishment of human rights due diligence
<div></div> <div>Harmonious coexistence with the local community</div>	Community-based operation of power facilities	Deepening the way of coexistence with the community, led by the officials in charge of coexistence with the community
<div></div> <div>Enhancement of business foundation</div>	Establishment of Nominating and Compensation Committee Transition to a company with an audit committee	Continued and thorough evaluation of the effectiveness of the Board of Directors Incorporation and operation of materiality assessment into executive compensation

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- A large background image on the left side of the slide showing an aerial view of a city, likely Tokyo, at sunset. The sun is low on the horizon, casting a warm orange glow over the city skyline. The Tokyo Tower is visible on the left side of the image.
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Appendix

NEXUS Sakuma Project

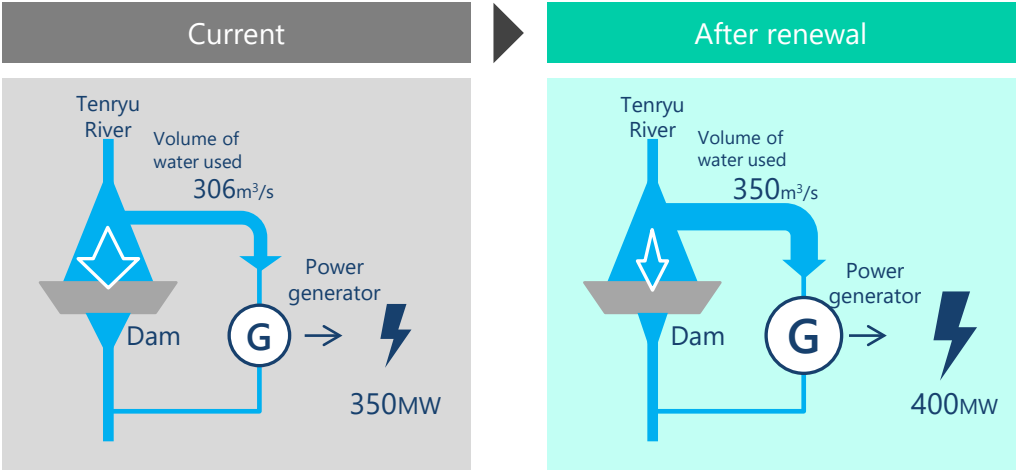


The amount of water used for power generation will be increased to achieve a maximum output of +50 MW (400 MW is the second largest in Japan* in terms of general hydraulic power) and an annual power generation output of +55 GWh.

By taking advantage of the generator's ability to operate at both 50Hz and 60Hz, we will contribute to the stable supply of electricity for both the east and the west.

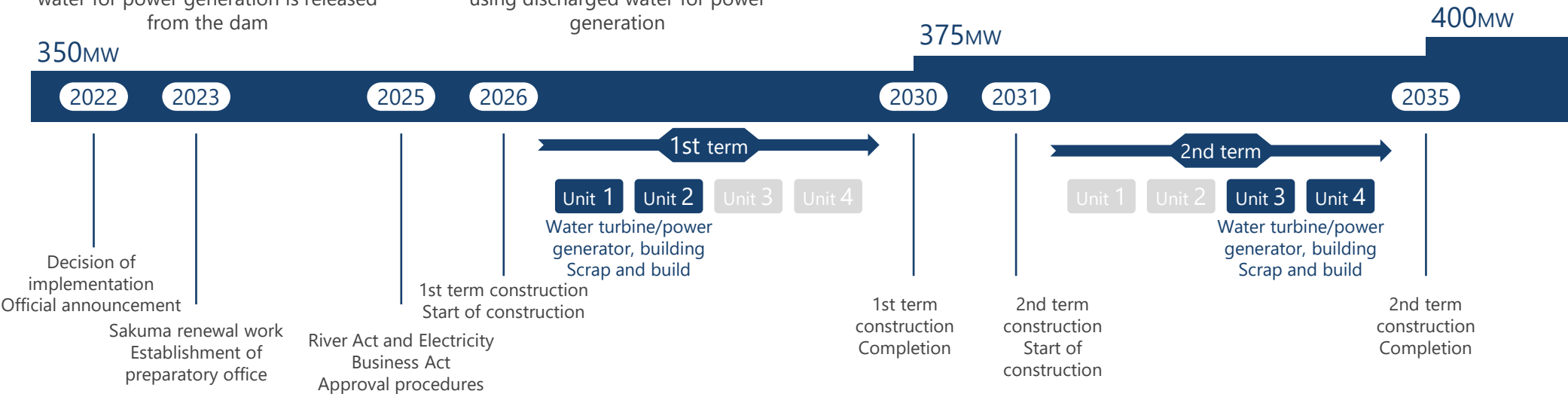
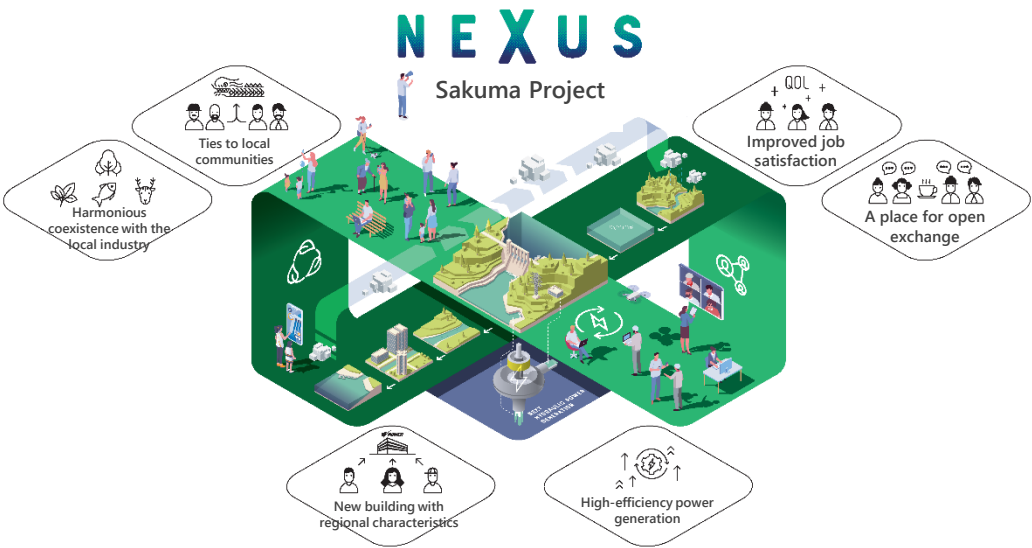
* The No. 1 general hydro power plant in Japan is J-POWER Okutadami Power Plant (560 MW).

Upcycling of one of the largest hydro power plants in Japan



Water in excess of the amount of water for power generation is released from the dam

Effective use of water resources by using discharged water for power generation



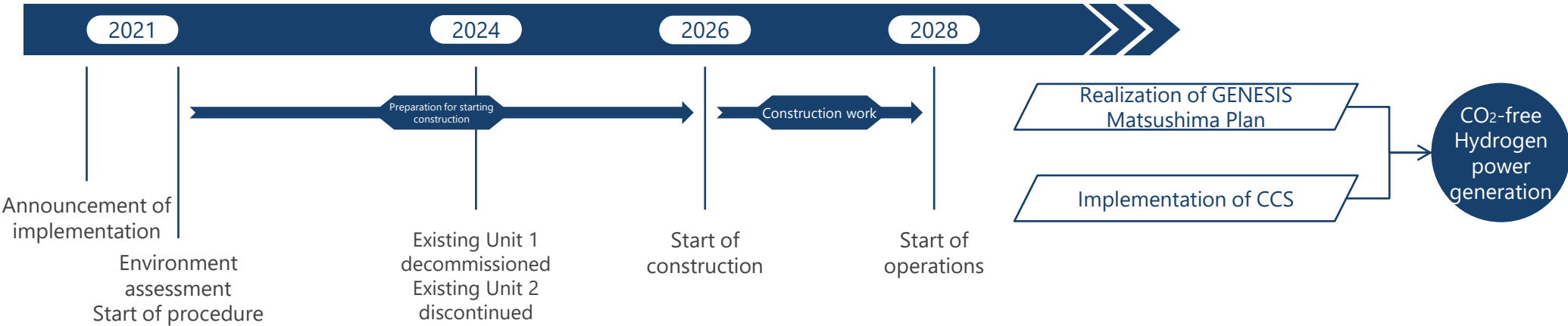
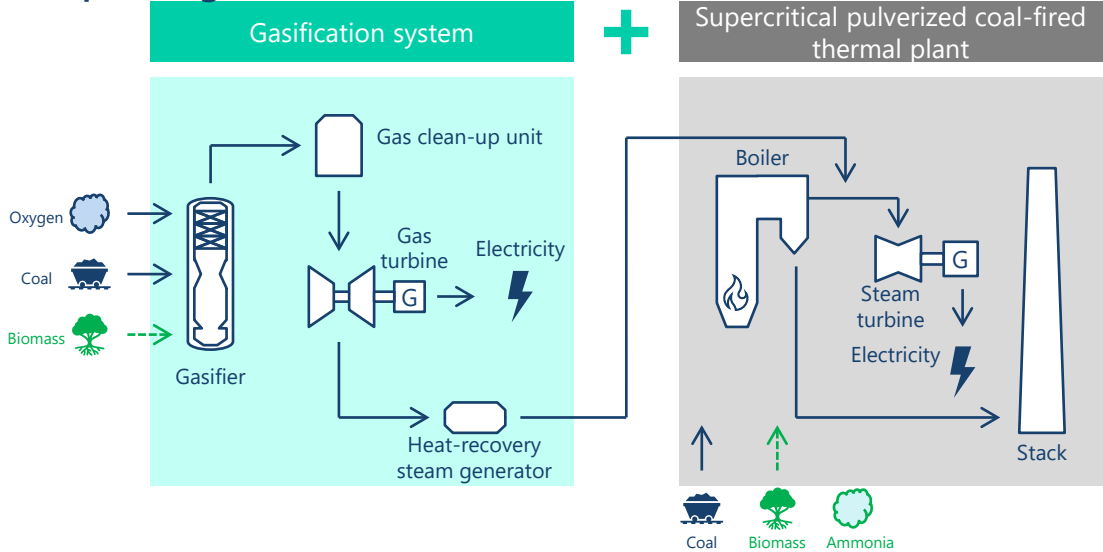
GENESIS Matsushima Plan



First step toward CO₂-free hydrogen power generation by commercializing the technology demonstrated in Osaki CoolGen Project.

We aim to become a leader in carbon-free thermal power generation in Japan, starting with upcycling by adding gasification facilities to existing facilities.

First step toward CO₂-free hydrogen power generation



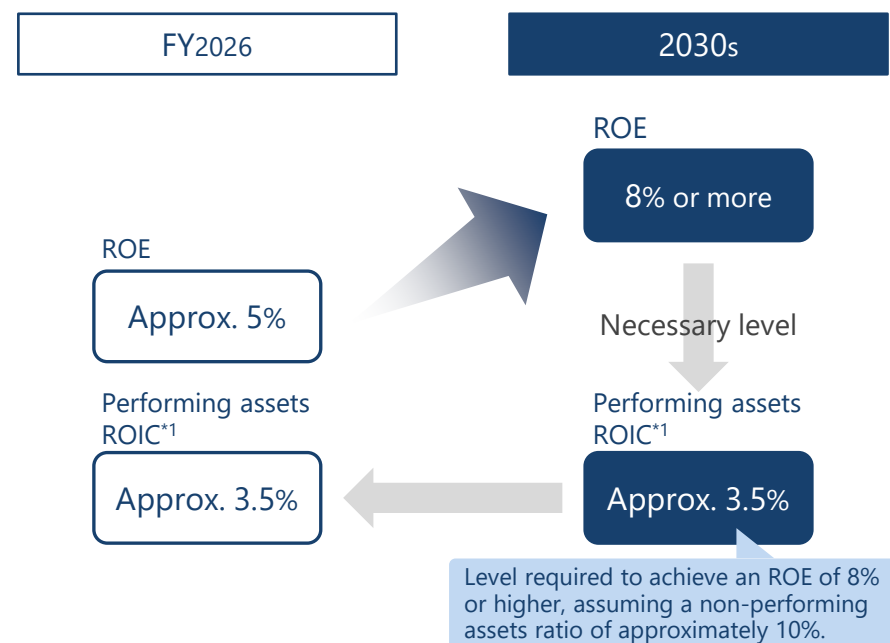
Toward medium- and long-term enhancement of corporate value

Based on the analysis and evaluation of the current situation, we will work to improve capital efficiency using ROIC as an indicator and to improve the corporate value over the medium to long term by further strengthening the dialogue with the market regarding our response to the risks inherent in our business.

Analysis and evaluation Partially updated from material published on October 31, 2023

	2019	2020	2021	2022	2023
Capital profitability/c capital cost					
ROE	5.3%	2.8%	8.1%	11.4%	6.8%
Shareholders' capital cost	About 6% on a CAPM basis.				
PBR at end of period	0.5 times	0.4 times	0.3 times	0.4 times	0.4 times
Market evaluation	<p>We recognize that our stock price is subject to the following risks and requires a return in excess of the cost of equity described above.</p> <ul style="list-style-type: none"> Increased uncertainty in the electric utility industry Progress in transitioning thermal power generation amid expected decline in coal-fired power business Ohma Nuclear Power Plant Project Uncertainty about the contribution of the renewable energy business to earnings 				

ROE target/ROIC level image



Remedial measures

Renewable energy in Japan	Expansion of power generation and realization of environmental value	P16
Overseas	Expansion of business scope and profit generation over multiple time horizons	P17
Coal-fired power	Publication of domestic thermal power generation transition direction	P 9
Ohma Nuclear Power Plant	Consideration of the use of a long-term decarbonized power supply auction system	P20
Business management	Study and implementation of measures to improve capital efficiency through the introduction of ROIC	P22



Setting ROE target for 2030s
Establishment of ROIC levels necessary to achieve the above ROE targets
Providing predictable shareholder returns
P11
Enhanced disclosure and ongoing efforts to engage in proactive dialogue with the market



This document contains forward-looking statements such as projections, plans, and targets related to the J-Power and our group businesses. These statements are based on information currently available to J-Power and on projections and other assumptions made at the time this document was prepared. These statements are based on certain assumptions. These statements and assumptions may prove to be objectively incorrect or may not be realized in the future.

The information in this document concerning companies other than J-Power and our group companies is taken from public information, etc., and J-Power has not verified and does not guarantee the accuracy and adequacy of such information.