# Message from the President



Aiming to be an ambitious corporate group that contributes to a stable supply of energy on a global basis and the realization of carbon neutrality

> Representative Director President and Chief Executive Officer

H. Kanno

# **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.

## **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.

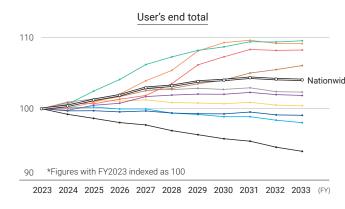
In 2024, we have been presented with a situation that is forcing us to reconsider our approach to realizing a stable supply of energy. This is because electricity demand in Japan is expected to rise in the future.

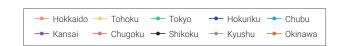
This year, the Japanese government has been engaged in discussions regarding revisions to the Strategic Energy Plan, while the GX (Green Transformation) Implementation Council has been considering feasible routes for realizing decarbonization. In addition to this, Japan's Nationally Determined Contribution (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.

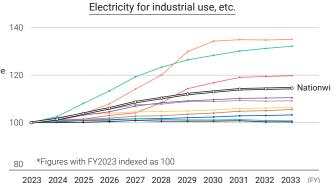
As these discussions on energy and climate change measures are integrated and moved forward, in January 2024,



# 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

# J-POWER "BI UF 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  $CO_2$  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  $CO_2$ -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  $\mbox{\sc 4}700$  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 CO2 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

## O 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

# 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.

The Value We Provide

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.