

# Jera

Energy for a New Era



JERA GROUP INTEGRATED REPORT 2024

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Cover Photos

Left: Hekinan Thermal Power Station (Aichi Prefecture), the world's first attempt to generate ammonia power

Top Right: Offshore wind power generation project at Parkwind (Belgium), acquired by JERA in 2023

Lower Right: Nishi-Nagoya Thermal Power Station (Aichi Prefecture), which supports fluctuating electricity demand

## Editorial Policy

### About This Report

JERA Group Integrated Report 2024 serves as a story of what we are aiming for, reflecting (1) our growth strategy announced in May 2024 and (2) our sustainability management system, in order to achieve our mission and vision. The “About JERA” and “Medium and Long-Term Strategy” sections provide an overview of JERA and its medium- to long-term business strategy. Specific business initiatives based on our medium- and long-term strategies are introduced in the “Business Initiatives” section, and the “The Infrastructure Behind Our Strategies” section presents the characteristics and strengths of our ESG and sustainability activities.

This report is designed as a communication tool for a diverse range of stakeholders—investors, local residents, students, and more—to deepen their understanding of our young company, which was only established in 2015. We hope this report will assist in enhancing readers’ understanding of the situation amid the significant shifts in the energy landscape both in Japan and around the world.

We will continue to refine our approach, striving for greater clarity and drawing on feedback from all of our stakeholders.

### Notes on Predictions

Descriptions in this report pertaining to the JERA Group’s future plans, forecasts, and strategies are based on information available at the time of publication. As these descriptions contain potential risks and uncertainties, please note that actual performance might differ from the content of this report.

Scope of this Report	In general, JERA Co., Inc., and related companies (All mentions of “the company,” “we,” and “our” in this report refer to JERA Co., Inc., unless otherwise noted.)
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# JERA's Value Creation Story

## Mission – Why do we exist?

**To provide cutting-edge solutions to the world's energy issues**

### What are the world's energy issues?

- ▶ The crux of the energy dilemma revolves around simultaneously achieving three things: sustainability (realizing a decarbonized society), affordability (providing electricity at affordable prices), and stability (ensuring a stable supply).
- ▶ Each country and region has its unique environment, so the weight placed on these three objectives and how they will be achieved will differ.

### How do we provide cutting-edge solutions?

- ▶ Through our global operations, we bring the world's leading energy solutions to Japan, helping to solve the energy issues facing the country.
- ▶ We seek to establish new energy supply models for Japan while also offering energy supply models established in Japan to other countries that face similar energy issues, helping to solve the world's energy issues.

## Vision

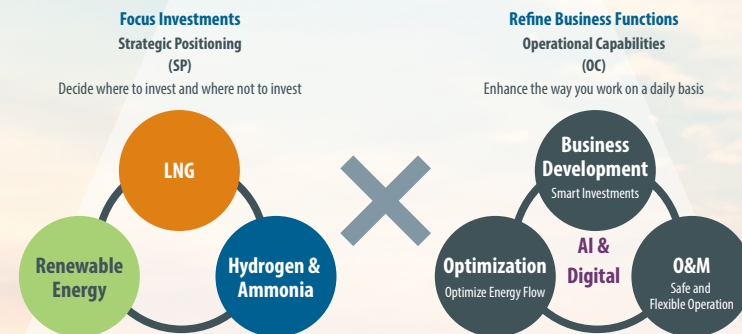
### Describe JERA in 2035

**To scale up its clean energy platform of renewable energy and low greenhouse gas thermal power,\* sparking sustainable development in Asia and around the world**

\*Thermal power generation facilities assuming the use of zero-emission fuels such as hydrogen & ammonia

### Medium and Long-Term Strategy P.13

**JERA Growth Strategy to Realize the 2035 Vision**



### Target Scale by FY2035

LNG Transaction Volume: More than 35 MT  
Renewable Energy Cumulative Development Capacity: 20 GW  
Amount of Hydrogen & Ammonia Handled: Approx. 7 MT

### The Platform Behind Our Strategies P.43

- Coexist and thrive alongside local communities in Japan and abroad
- Ensure the safety of all people and local communities involved in our business
- Establish strong governance
- Ensure compliance
- Create innovation with diverse human resources
- Ensure the well-being of both our employees and their families

# At a Glance

JERA is an energy company that spans the entire value chain, from fuel upstream business and procurement to power generation and wholesaling of electricity and gas.

As a global company with the largest power generation capacity in Japan and capable of handling some of the largest fuel volumes in the world, we are committed to solving the world's energy problems and leading the way in creating a decarbonized society.



## Business Overview

### Fuel Business

Investment in fuel upstream and other businesses, fuel transportation, and fuel trading

Major Projects ■ Major Group Companies ◆

### Domestic Thermal Power Generation and Gas Business

Thermal power generation in Japan, fuel procurement, O&M engineering, sale of electricity and gas in Japan, and others

Major Projects ■ Major Group Companies ◆

### Overseas Power Generation and Renewable Energy Business

Investment in overseas power generation projects, Development and operation of renewable energy in Japan and overseas

Major Projects ■ Major Group Companies ◆

Number of Employees  
(Consolidated)

**5,838**

Revenue<sup>1</sup>

Approx. **3.7** trillion yen

Total assets

Approx. **8.5** trillion yen

LNG Transaction Volume  
(Annual)<sup>1</sup>

One of the World's Largest  
Approx. **36** MTPA

LNG Suppliers

**14** countries

Number of Upstream Investments

**6** projects

Thermal Power Plants in Japan

**26** stations

Power Generation  
Capacity in Japan<sup>\*2</sup>

The largest in Japan  
Approx. **59** GW

Power Generation  
Output in Japan<sup>\*1,2</sup>

Approx. 30% of country total  
Approx. **231** TWh

Number of Overseas Power Projects

Approx. **30** projects

Overseas Business Locations

**10+** countries

Overseas Power Generation  
Capacity (Equity output)<sup>2</sup>

Approx. **13** GW

As of March 31, 2024

<sup>\*1</sup> FY2023

<sup>\*2</sup> Includes facilities under construction. Domestic figures exclude joint thermal power holdings.



# History of JERA

Driving the Push Toward a Decarbonized Society as a Clean Energy Company

**Mission: To provide cutting-edge solutions to the world's energy issues**

## Ten Years of Progress: Paving the Way to Becoming a Global Energy Leader

JERA announces Growth Strategy  
to Realize 2035 Vision

We are here

2015

2019

2023

2035

2050

TEPCO and Chubu Electric Power Company form a 50/50 joint venture to become a Japan-based global energy company

JERA completes the integration of all domestic and overseas fuel-fired businesses, establishing itself as one of the world's largest LNG buyers

JERA supplies one-third of the power in Japan and leads the country's decarbonization efforts

### 2035 Vision

To scale up its clean energy platform of renewable energy and low greenhouse gas thermal power, sparking sustainable development in Asia and around the world

### JERA Zero CO<sub>2</sub> Emissions 2050

Achieve virtually zero CO<sub>2</sub> emissions from JERA operations



90 billion yen

Net Profit<sup>1</sup>

148.7 billion yen

Approx. 4 trillion yen

Total Assets

Approx. 8.5 trillion yen

Approx. 3 GW

New Domestic Power Supply<sup>2</sup>

Approx. 7 GW

Approx. 35 million t

LNG Handling Volume<sup>3</sup>

Approx. 36 million t

Approx. 1.5 GW

Renewable Energy  
Development Output<sup>2</sup>

Approx. 3.4 GW

N/A

Hydrogen & Ammonia Investment

Approx. 15 billion yen

- Ensured steady achievement of targets
- Expanded business at a time of low interest rates
- Secured and delivered stable supply in Japan
- Achieved status as one of the world's largest volume handlers
- Built a new business pillar for decarbonization

<sup>1</sup> Excluding the effect of time lags after fuel cost adjustments   <sup>2</sup> Cumulative development capacity   <sup>3</sup> Including trading volume

## JERA's Co-CEO Structure

As Chair of the Board of Directors and the Nomination and Compensation Committee, Yukio Kani is responsible for their oversight. As Global CEO, he is the executive leader in charge of constructing a global management structure to achieve the corporate mission and fulfill its vision. As President, Director, CEO and COO, Hisahide Okuda is responsible for day-to-day safety and stable domestic electricity supply. He also leads JERA's initiative to promote a decarbonization strategy and build a system of collaboration, primarily among domestic stakeholders.

JERA maintains a flat organization that keeps top management in touch with on-site operations while taking on challenges in new areas to achieve our vision. We believe that this co-CEO structure is effective for rapidly transforming our business model while preserving a steady electricity supply in Japan on a day-to-day basis.

Kani and Okuda value diversity as the foundation of this structure. Over the past year, there has been further diversification on the board and among directors. This allows our executive team to draw upon varied backgrounds and expertise to achieve our mission and vision. This culture of valuing diversity not only attracts new talent but also helps increase opportunities for collaboration with global companies both domestically and internationally across various fields.



Co-CEOs Yukio Kani (left) and Hisahide Okuda (right)



# Message from the Global CEO and Chair



## JERA's Roadmap for the Next Decade Collaboration: the Key to Success

Global CEO and Chair  
**Yukio Kani**

**Q** It has been around 10 years since JERA's inception, and we are now looking toward the next decade. As the global energy business environment continues to undergo major change, we have announced the "JERA Growth Strategy to Realize the 2035 Vision." What are JERA's aspirations going forward?

In 2014, TEPCO and Chubu committed to creating a global energy company. Five years later, in 2019, we fully integrated our fuel and thermal operations both domestically and abroad. As one of the world's largest buyers of liquefied natural gas (LNG), we now supply one-third of Japan's electricity and have accelerated our decarbonization efforts while exceeding profit targets. However, we felt that it was now time to pause and chart a new course for the coming decade.

After reflecting upon the domestic and international business environment, it is clear that climate change, poverty, and geopolitical risks are directly linked to energy issues in our increasingly uncertain world. These three issues especially need to be addressed in Asia, which will continue to act as a hub for growth even as the relative size of Japan's economy is predicted to shrink. AI is another prime example of the kind of major change our society faces, and here too, energy holds the key. So, in light of these challenges, where does JERA go now?

Our mission is our top priority. This mission defines the global energy challenge in three ways: "Sustainability," meaning the reduction of carbon dioxide (CO<sub>2</sub>); "Affordability," representing affordable energy prices; and "Stability," which means maintaining a reliable energy supply even in the face of geopolitical risks. Our goal is to provide cutting-edge solutions to address these three areas simultaneously, and we remain mindful of this mission every day as we strive to realize our vision for 2035.

In concrete terms, we aim to commercialize a new business model in Japan that combines low-carbon thermal power generation with renewable energy, thereby addressing the instabilities faced by renewable sources. We will then seek to expand this model globally, with a focus on Asia.

**Q** Can you tell us what JERA's specific strategies are for realizing the 2035 Vision?

At JERA, we first clarify where to invest—and where not to. Currently, our investments are focused on three areas of Strategic Positioning (SP): LNG, renewables, and hydrogen & ammonia. We also seek to refine each of these investments by continually improving our approaches to our daily work. Specifically, we are committed to strengthening our three Operational Capabilities (OC): investing wisely, optimizing energy flows, and leveraging our assets safely and flexibly.

## Message from the Global CEO and Chair



Explaining our mission, vision, and business strategy in various situations (Photo: Gastech 2023 in Singapore)

In turn, the synergy between these three SPs and OCs increases the number of solutions we can offer, enabling us to tailor our combined approach to the needs of each customer, region, and country.

Over the next 10 years, we will invest 5 trillion yen in these three SPs. We will also establish a renewable energy and low-carbon thermal power structure to generate more than 350 billion yen in annual profits. As interest rates and construction and material costs rise, we will respond with further discipline in our investments, as well as increased profitability through optimization and enhanced O&M capabilities. Finally, we will adapt and adjust our three areas of investment flexibly as the situation demands.



**LNG boasts one of the world's largest volumes of trade; what is your blueprint for providing solutions in Asia with regard to this energy source?**

We are leveraging some of the world's largest offtake capabilities to enhance our three-pronged approach of strengthening the LNG value chain, diversifying procurement and sales flows, and optimizing LNG flows on a global level. For example, in the case of Japan, which is poor in resources, our solutions provide energy security. These solutions have continued to function effectively since the outbreak of the crisis in Ukraine, providing a stable supply and successfully responding to fluctuations in demand.

We are also working to promote decarbonization in conjunction with renewable energy by introducing LNG to regions—predominantly in Asia—where coal- and oil-fired power generation is still prevalent.



**When engaging with renewable energy, what are the actual benefits of collaborating with a local team strongly connected to an area?**

We began our renewable energy business from the ground up but have since become one of the top players in Asia. We have made especially noticeable gains during the last five years and now have 5 GW and 300 employees. Our large-scale renewable energy business represents a unique growth opportunity because it enables us to produce green hydrogen & ammonia without greenhouse gas emissions.

Moving forward, we will take three steps to scale up our efforts. We are already engaged in step 1, which involved establishing JERA Nex (UK), headquartered in London, and acquiring Parkwind, Belgium's largest offshore wind company, in 2023. This step is focused on building a core base of operations in Europe replete with a team of experts.

In step 2, we will integrate existing domestic and overseas teams with this European team, combining local and global operations into a "glocal" system. Once we have created a business entity with both size of scale and diversity in business areas, our final step will be to ally and integrate with fellow global players.



Team building with diversity, expertise, and mobility is the key to business success (Photo: key members of the Renewable Energy Business)



## Message from the Global CEO and Chair

**Q JERA has declared its intent to be a “first mover” in value chain construction with regard to hydrogen & ammonia.**

**Does this mean that you are working to develop various applications for hydrogen & ammonia and not only use them in fuel conversion for thermal power plants?**

To be clear, “hydrogen & ammonia” is a symbolic phrase. In more precise terms, we are thoroughly committed to tackling the task of decarbonizing thermal power generation, although our work to convert Hekinan Thermal Power Station from coal to ammonia is at the forefront of our efforts. Much like the LNG value chain, we aim to leverage thermal power’s large offtake capacity to build an ammonia value chain.

A further unique aspect here is our desire to broaden the applications of the ammonia infrastructure we have built, such as using it as ship fuel or a power source for small and medium-sized factories. We believe that these efforts will contribute to promoting the decarbonization of society as a whole.

As for hydrogen, last year in the United States, we began introducing up to 40% hydrogen fuel in our gas-fired power generation. We have also initiated efforts to create a hydrogen value chain. As we continue to utilize the existing LNG value chain, we are also challenging ourselves to find new solutions, such as integrating it with CCS, which captures CO<sub>2</sub> on the power generation side and stores it underground.



We aim to create a flat culture where people from Japan and overseas can openly exchange ideas. (Photo: town meeting in Perth, Australia)



Collaboration with partners is essential to achieve our vision (Photo: Speaking at the main event of CERAWee 2024)

**Q What is the key to success in both long-term energy transition and growth strategies for achieving the 2035 Vision?**

There is still a long way to go in the energy transition. So while maintaining a long-term perspective is essential, it is also vital that we are able to quickly adjust priorities in our three areas (LNG, Renewable Energy, Hydrogen & Ammonia) of investment as the business environment evolves and new technological innovations progress. Flexible decision-making mechanisms paired with a shared infrastructure for business development, optimization, and O&M enable us to respond with agility. Consider our three investment areas from the perspective of hydrogen & ammonia. In the case of blue hydrogen ammonia, we can capitalize on our LNG value chain expertise and network of personal connections. And for green hydrogen ammonia, in addition to the LNG value chain, we can tap into our knowledge and human network with regard to large-scale renewable energy projects.

The key to achieving our mission and vision also lies in collaboration. We are undertaking many large projects in all three of our investment areas and must diversify risk while collaborating with partners we can trust. Becoming partners means working side by side for 40 years or more, so it is essential that we are chosen as a business partner by top global players in Japan and abroad.

It is also vital that strides in decarbonization are made through open dialogue that is not limited to the private sector but includes governments and other public institutions as well in order to create a shared vision for the path forward. Having this shared understanding with the government and other institutions will help to reduce uncertainty in the long-term business environment as we strive to find new solutions.

We believe that there are two critical aspects to making these collaborations a success. First, do our partners share the end goal of our mission and vision? And more importantly, can we share a culture with our partners? We value a culture of equality where our diverse talent can gather and openly express their opinions. To this end, we are committed to collaborating with our many partners and stakeholders to achieve our vision together.

# Message from the President, Director, CEO and COO



**Establishing a new clean energy supply platform in Japan and Asia by integrating options tailored to each country's needs.  
To manage rising fluctuations in supply and demand, thermal power remains indispensable in driving our low-carbon and decarbonization initiatives.**

President, Director, CEO and COO  
**Hisahide Okuda**



**How will you lead the decarbonization of the electricity sector in Japan?**

We are promoting a variety of CO<sub>2</sub> emission reduction initiatives based on our JERA Zero CO<sub>2</sub> Emissions 2050 commitment announced in October 2020. Within Japan, we are driving the development of renewable energy and low-carbon thermal power generation, aiming to establish a business model that complements these initiatives. We believe this will pave the way for the decarbonization of the domestic electricity sector.

For renewable energy, we are mainly promoting the development of large-scale offshore wind power generation. As for achieving low-carbon thermal power, we are driving the conversion from coal to ammonia and liquefied natural gas (LNG) to hydrogen, reshaping our fuel sources. Looking ahead at technological developments, we will also utilize carbon capture and storage (CCS), which involves capturing CO<sub>2</sub> emissions and storing them underground, as well as carbon capture, utilization, and storage (CCUS), which makes use of captured and stored CO<sub>2</sub>.



**JERA completed a demonstration test at the Hekinan Thermal Power Station that substituted fuel ammonia for coal. Could you tell us about the results and future prospects for applications?**

We conducted the world's first large-scale demonstration test on fuel ammonia as a conversion fuel for at Unit 4 of our Hekinan Thermal Power Station in Aichi Prefecture. We achieved a 20% ammonia fuel conversion rate at the power plant's full output of 1 GW in April 2024.

In addition to successfully burning ammonia as fuel, our demonstration test confirmed excellent results related to air pollution: nitrogen oxide (NO<sub>x</sub>) emissions were comparable to or lower than before the conversion, and sulfur oxide (SO<sub>x</sub>) emissions were reduced by about 20%. We also did not detect any emissions of nitrous oxide (N<sub>2</sub>O), which is believed to have a high greenhouse effect, thereby achieving another one of our goals for the demonstration test.

Another significant outcome was that we were able to carry out the construction necessary for the ammonia conversion, such as installing tanks and pipelines while keeping the power plant operational. The final step before starting the demonstration test was replacing the burners during a scheduled maintenance period. In other words, we were able to carry out the necessary maintenance to achieve the 20% ammonia fuel conversion rate without any disruption to the stable supply of electricity. We believe this is a very important point.

To realize commercial operation, we need to set up the entire value chain, from procuring and transporting ammonia fuel through to power generation. There are currently no major bottlenecks, so we believe we can start commercial operation around 2027 or 2028. The 20% conversion rate is also not our end goal, and we are working closely with manufacturers to develop burners that can achieve a rate above 50%. If all goes well, we aim to bring these burners online with the goal of exceeding 50% conversion by the late 2020s.



Hekinan Thermal Power Station



## Message from the President, Director, CEO and COO



**There was a fire accident at Taketoyo Thermal Power Station in January 2024. Could you tell us your thoughts on safety and compliance?**

We believe safety and compliance are the non-negotiable foundation for everything we do. We have made it clear to every employee that safeguarding this foundation is essential for business continuity and maintaining the trust and support of all our stakeholders. The fire in January 2024 at Taketoyo Thermal Power Station in Aichi Prefecture caused significant concern and disruption. Our Accident Investigation Committee is currently conducting a thorough investigation and has identified a combination of factors that led to the fire. We are now reviewing preventive measures to ensure such an incident never happens again. We finalize preventive measures in September 2024. We will coordinate with relevant parties inside and outside the company on the timing for restarting the plant. The fire did not cause any major damage thanks to the quick, effective collaborative response by firefighters, police, municipal authorities, and everyone in the community. This incident has underscored the importance of continuing to hold safety drills and build our relationship with the community. Based on our commitment to the principle “Think globally, Act locally,” we will continue to thoroughly prioritize safety and compliance while bearing in mind that our power generation business can only thrive in harmony with the local community.



**As JERA strives for decarbonization, it is also essential to ensure stable supply and economic viability. How are you approaching this challenge in Asia?**

Our strategy is to build a clean energy platform by combining low-carbon thermal power with renewable energy. We are rolling out this strategy in Japan as well as the rest of Asia using a comprehensive step-by-step approach. In Asia, the important first step is to provide strong support for more introduction of LNG at thermal power plants. Given that many Asian countries and regions still struggle to secure a stable supply, instead of developing new coal-fired power plants, we help transfer Japan's advanced thermal power technology to these areas to facilitate the development of LNG-fired thermal power with relatively lower greenhouse gas emissions. At the same time, we will assist in the adoption of decentralized renewable energy and support the future transition of coal-fired plants to ammonia. We believe that proposing realistic energy transitions tailored to the specific circumstances of each country and region is the most effective way to contribute to low-carbon and decarbonization initiatives in Asia.

Our basic approach is to simultaneously pursue decarbonization, a stable energy supply, and economic viability by combining diverse options to create an optimal solution tailored to the local circumstances. Fuel conversion to hydrogen & ammonia represents one of many options for low-carbon thermal power generation, but it is just one of several possibilities.

For example, in Europe, countries are connected by transmission grids, allowing them to share electricity across borders. This makes it possible to freely exchange electricity generated from sources such as abundant hydropower in Scandinavia, offshore wind power in the North Sea, and nuclear power in France. In contrast, island nations such as Japan and those in Southeast Asia are not connected to international power grids, and with limited land and extensive forests, they have neither abundant natural resources nor significant renewable energy potential. That is why it is more realistic to respond by adding options like decarbonization of thermal power. We gain a firm understanding of the specific circumstances of each country or region and provide solutions that fit their needs.



**Will the need for thermal energy decrease with the restart of nuclear power plants in Japan as well as worldwide progress in the development of renewable energy?**

First, we need to recognize that different energy sources provide different types of value. We do not just measure value in terms of generation capacity or output anymore. When considering how to configure the optimal energy mix, it's important to go beyond traditional measures of generation capacity and output and take into account environmental value, such as CO<sub>2</sub>-free emissions, as well as the flexibility to adapt to short-term supply-demand fluctuations caused by changes in day and night or weather, and long-term seasonal shifts.

## Message from the President, Director, CEO and COO

For example, renewable energy that does not emit greenhouse gases has significant environmental value and is crucial for achieving decarbonization. However, both solar and offshore wind power are heavily affected by natural conditions and lack the ability to maintain frequency stability, which is essential for a stable supply. Similarly, while nuclear power does not generate CO<sub>2</sub> emissions, it is not well-suited to respond to short-term supply and demand fluctuations. As we introduce more renewable energy, flexibility is necessary to handle these short- and long-term fluctuations in supply and demand. Amid this, we believe that thermal power generation, alongside battery storage, will become increasingly important, given its role in smoothing out supply and demand fluctuations.

However, while thermal power generation offers the value of flexibility, it also emits greenhouse gases in the process of burning fossil fuels. That is why there is an urgent need to achieve low-carbon and decarbonized thermal power generation. The first step is converting hydrogen & ammonia for use as fuel, allowing us to reduce CO<sub>2</sub> emissions while maintaining the benefits of thermal power, such as its ability to adjust output and provide a reliable supply. While considering energy security in a world increasingly divided, it is essential to pursue the best energy mix that can reliably respond to supply and demand fluctuations by enabling renewable energy, nuclear power, and thermal power to work in concert.



**Could you share some new strategies for balancing supply and demand, such as the introduction of battery storage, to meet varying electricity needs for different areas, seasons, and times of day?**

To ensure a stable supply of high-quality electricity, it is crucial that supply and demand are constantly in sync—a concept referred to in Japanese as “simultaneous balancing.” To achieve this, it is necessary to build a power supply system that combines various energy sources and battery storage capable of responding to fluctuations in both short and long-term demand. For example, there is a significant difference in electricity demand between day and night. Demand can also fluctuate greatly due to weather changes even within a single day. Traditionally, we have achieved balance for these short-term demand fluctuations primarily with thermal and hydroelectric power. However, with the recent increase in renewable energy, which varies based on natural conditions, these fluctuations have grown larger than ever before. This has led to a significant rise in the frequency of starting, stopping, and adjusting the output of thermal power plants, putting considerable strain on the equipment.

Therefore, we believe it is essential to carefully design a power mix that can achieve balance in short-term demand fluctuations while introducing battery storage to the extent possible. On the other hand, relying solely on battery storage to achieve balance for long-term fluctuations, such as reduced output from renewables due to extended poor weather or seasonal variations in electricity demand, would require an enormous amount of

batteries spread over vast areas of land, which is unrealistic. For such long-term fluctuations in supply and demand, we need thermal power to make the necessary adjustments. Amid the increasing adoption of renewable energy, with its output fluctuating based on natural conditions, it is crucial to rebuild a system that can reliably manage short- and long-term supply and demand fluctuations by successfully combining battery storage, hydropower, and low-carbon or zero-emission thermal power.



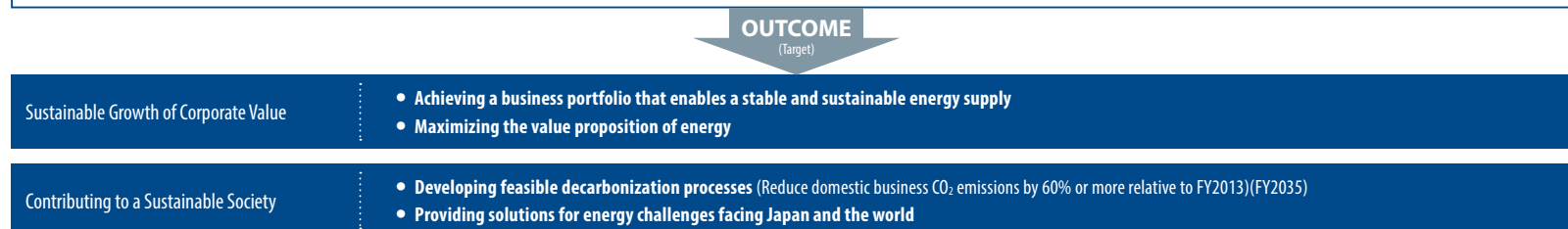
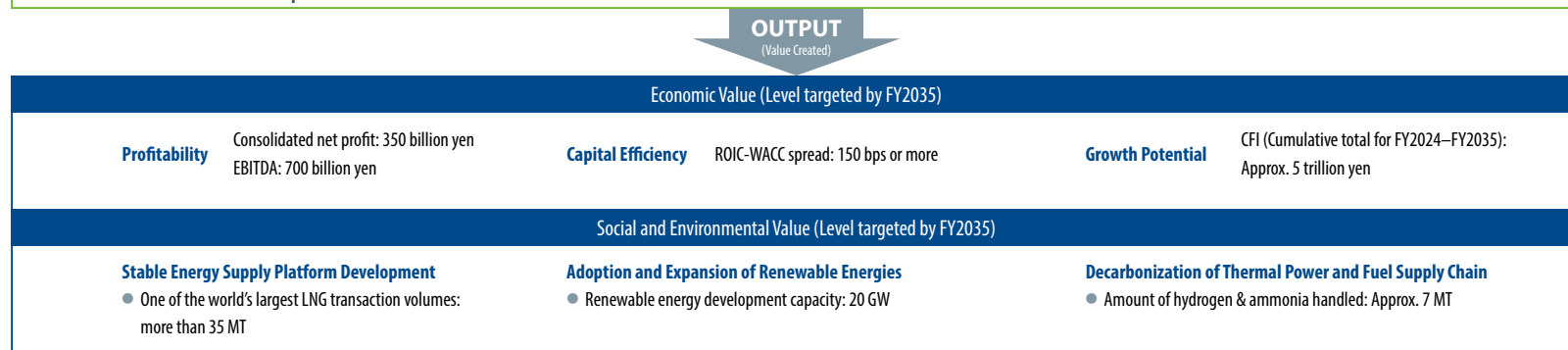
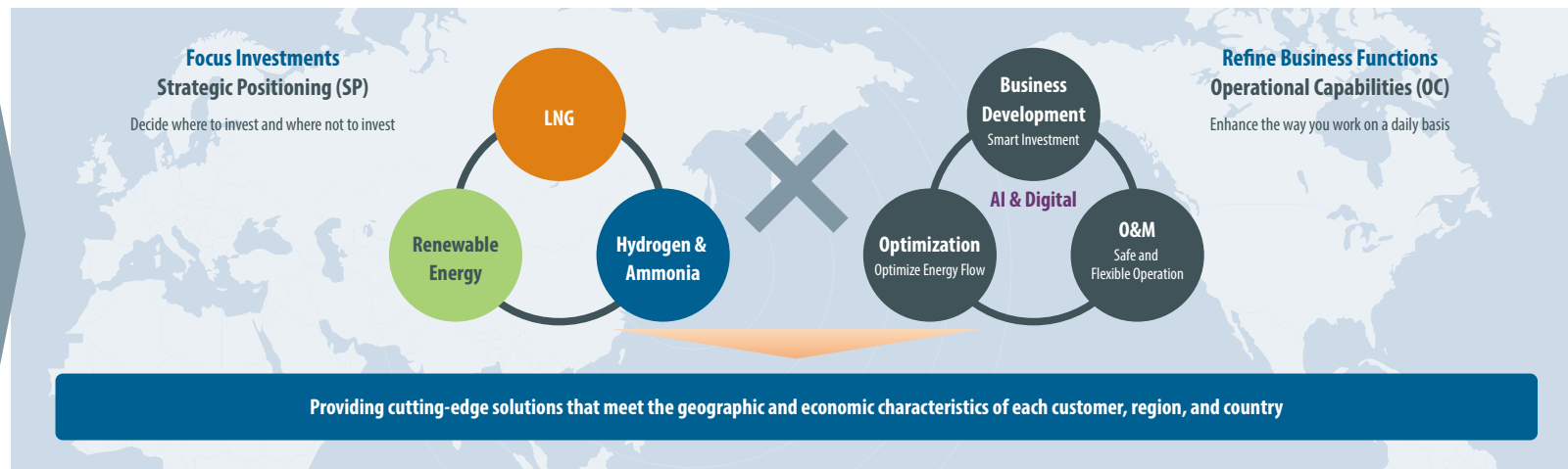
**It is expected that electricity demand will increase due to the promotion of digital transformation, including the expansion of data centers and the spread of generative AI. Could you share your thoughts on the policies and approach to power development planning?**

Alongside decarbonization, we are also focusing on addressing the anticipated rise in electricity demand. Until now, we have been investing in replacing aging thermal power plants and decarbonizing our energy sources.

However, the business environment is constantly changing. Just a few years ago, some claimed that electricity demand would gradually decrease due to factors such as population decline, slower economic growth, and energy conservation driven by global warming measures. But now, it is expected that there will be increasing demand for electricity related to digital transformation, including for data centers and AI. Furthermore, the return of manufacturing hubs for industries such as semiconductors to Japan is also contributing to the rise in electricity demand. There is a growing likelihood that the nation's overall electricity demand will begin to increase in the near future. Although some of this can be addressed through the restart of nuclear power plants and energy conservation measures, if the growth in demand is sustained and significant, new power sources will inevitably need to be established. As the role of thermal power shifts to balancing supply and demand, establishing new thermal power plants will require a regulatory environment that ensures business predictability appropriate for this new role. We intend to review our power development plan while thoroughly consulting with the national government to respond to this increasing demand for electricity.



# Value Creation Process



\*1 As of March 31, 2024 \*2 As of July 1, 2024 \*3 Totaled on a wet coal basis (arias received)

## SECTION

# Medium and Long-Term Strategy

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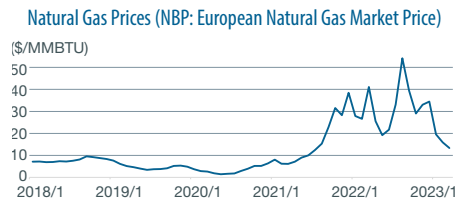


# Understanding the External Environment

## Ensuring Energy Security and Decarbonization

### Unpredictability in the Energy Resource Landscape

Russia's invasion of Ukraine in February 2022 upset the global balance of resource supply and demand, causing a spike in natural gas and coal prices. Expanded LNG production, chiefly in the United States, has helped to stabilize the balance between supply and demand, yet the situation remains unpredictable, due to geopolitical risks such as the Russian invasion becoming an extended conflict and the worsening situation in the Middle East, as well as LNG production slumps, all of which could result in drastic changes to supply and demand. As such, the reliable procurement of energy resources has become increasingly crucial to ensuring a stable supply of electricity. Because Japan is heavily dependent on overseas energy resources and in light of the current uncertainty in the energy landscape, the country set policies to secure overseas interests in the development and production of fossil fuels, bolster procurement, and build a strategic surplus of LNG within the scope of its Basic Policy for the Realization of GX.



### In Pursuit of Stable Electricity Supply

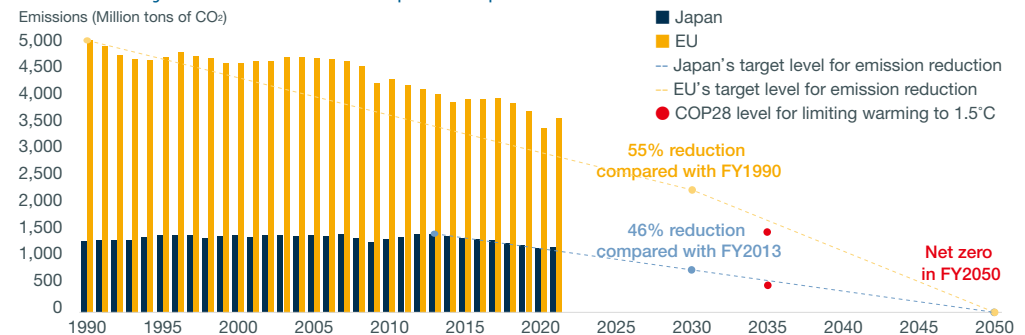
Electricity demand in many countries is taking the form of increased demand for data centers as cloud services and generative AI continue to be adopted. Meanwhile, increased production and installation costs due to global inflation and rising interest rates represent an obstacle to introducing renewable energy sources such as solar and wind power. In Japan as well, the annual growth rate of renewable energy installations remains low. Thermal power generation, which accounts for approximately 70% of electricity generated, is currently sufficient to address the supply-demand gap stemming from structural changes and fluctuations in renewable energy generation due to shifting weather conditions, as thermal power has not encountered any shortages in its ability to adapt. As the introduction of renewable energy is expected to further expand in the future, it will be necessary to systematically secure this capacity for change, thereby ensuring a stable supply.

Japan's basic energy policy is formulated around its S+3E perspective (S+3E means first and foremost ensuring stable supply and realizing low-cost energy supply by enhancing efficiency on the premise of safety while making maximum efforts to pursue environment suitability). Creating power supply facilities that are environmentally compatible while still capable of providing a stable supply of electricity will be a key challenge here.

### Accelerating the Move Toward Decarbonization

In 2023, at the 28th Conference of the Parties of the United Nations Framework Convention on Climate Change (COP28), eight specific targets were set for parties to work toward in order to reduce emissions and achieve the ambitious goal set out by the Paris Agreement (limiting the global temperature rise to 1.5°C). Each country was asked to commit to a course for making contributions, taking into account the Paris Agreement, as well as the country's own situation, path going forward, and approaches.

### Achievement of Target Emission-Reduction Levels in Japan and Europe



Source: Compiled from UNFCCC "Greenhouse Gas Inventory Data" (<https://unfccc.int/>) by Mizuho Research & Technologies

### Decarbonization Initiatives Around the World

In April 2022, the UK announced a new Energy Security Strategy in response to soaring global energy prices caused by Russia's invasion of Ukraine. The strategy aims to strengthen long-term energy security by supporting domestic oil and gas production in the short term while also expanding production capacity for low-carbon hydrogen, accelerating the adoption of hydrogen, promoting nuclear and solar power generation to achieve 95% low-carbon electricity by 2030.

Meanwhile, Germany is moving to develop its new Power Station Strategy, focused on the promotion of power generation fueled by hydrogen gas. In addition to divesting from coal-fired power generation, Germany is said to be preparing for its power infrastructure to lose a degree of adjustability due to the closure of deteriorating gas power plants. This is because as solar, wind, and other avenues of renewable energy are expanded, it is necessary to ensure that power generation capacity can flexibly adapt and thereby ensure that supply can respond swiftly to fluctuations in power generation due to weather conditions. The German government aims to dispel investor concerns by clarifying its policies and has laid out a road map for its transition to hydrogen gas power generation. Specifically, the country has announced its intention to develop 10 GW of capacity by conducting up to four short-term tenders for 2.5 GW of power generation capacity for hydrogen-ready power plants.

In Japan, a cabinet decision was made in July 2023 to pass the Act on Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure (GX Promotion Act). One of the initiatives in this act will be fuel conversion from fossil fuels to hydrogen & ammonia to ensure a stable supply and move the country to decarbonized power sources. Furthermore, a long-term decarbonization power source auction was initiated in 2024 with the goal of encouraging new power source construction, such as power plants, while also transitioning to sources including hydrogen, ammonia, and renewable energy to achieve carbon neutrality.

Initiatives such as these are realistic transitional approaches toward decarbonization that will reduce greenhouse gas emissions from thermal power generation while ensuring a stable supply.

# Mid- to Long-Term Strategy Overview



## Strategic Positioning (SP)

After examining the decarbonization roadmaps of multiple countries, including Japan, we have adopted the complementary energy sources of LNG, renewables, and hydrogen & ammonia as three pillars of strategic positioning for future business development.

The first pillar, LNG, is an essential energy source during our transition period, and as one of the world's major LNG suppliers with optimization functions across the Atlantic and Pacific, we will continue to supply LNG in a stable and economical manner.

The second pillar is renewables, and we are one of the few companies in Asia operating large offshore wind farms. We launched JERA Nex building on the expertise and development capabilities of Parkwind, a major European offshore wind company acquired last year. As a Center of Excellence, JERA Nex will establish an ideal collaborative operational structure with regions such as Japan and Taiwan.

The third pillar is hydrogen & ammonia. In countries across Asia, including Japan, fuel-based thermal power generation will remain crucial for the stable operation of power systems, but by using hydrogen & ammonia as fuel sources, we aim to decarbonize these systems. Furthermore, by pursuing the joint use of hydrogen & ammonia with other industries, we will also contribute to the decarbonization of industries beyond the power sector.

## Operational Capabilities (OC)

Our business operations are designed to combine the three operational capabilities of business development, optimization, and operation and maintenance (O&M) to create synergies. In order to navigate fierce market competition and the demanding decarbonization process, it is crucial to allocate talent based on their skill sets, enhance their expertise, and work together as a team of professionals.

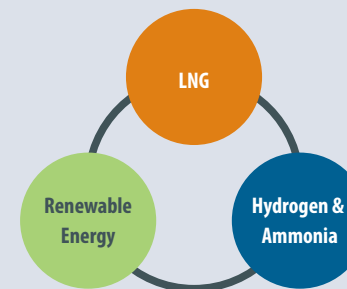
For example, in O&M, we focus on predictive maintenance using digital technologies. Big data from our thermal power plants around the world is gathered by a specialized team, who analyze the data to detect early warning signs. This expertise can also be applied to offshore wind power farms, where frequent inspections are difficult.

By effectively combining the three pillars of strategic positioning with these three operational capabilities, we can flexibly adapt to various future scenarios and provide cutting-edge solutions tailored to the needs of each country and region.

### JERA Growth Strategy

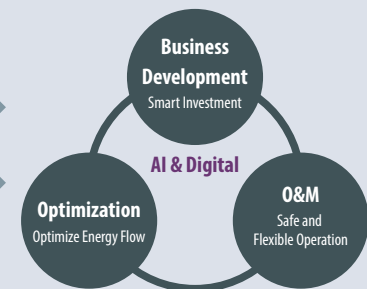
#### Focus Investments Strategic Positioning

Decide where to invest and where not to invest



#### Refine Business Functions Operational Capabilities

Enhance the way you work on a daily basis



Providing cutting-edge solutions that address the unique geographic and economic needs of each customer, region, and country

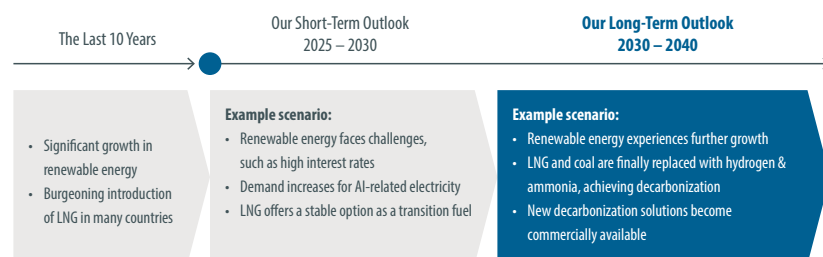


# LNG Strategy (One of the largest global players in the LNG value chain)

## Issue Awareness in LNG

LNG is anticipated to play a crucial long-term role as a transition fuel in the shift to a decarbonized society, even as the surrounding landscape undergoes significant changes. In addition to rising demand in emerging markets, particularly in Asia, Russia's invasion of Ukraine has sparked a growing need for alternatives to Russian gas, especially in Europe. Although competition for LNG is intensifying, this presents opportunities to expand commercial prospects through increased demand. Meanwhile, the risks are also becoming more complicated, with factors such as evolving international environmental regulations, reduced production from traditional LNG suppliers, temporary halts in U.S. LNG export approvals, escalating geopolitical tensions, and increasing instability in shipping. As renewable energy continues to expand, LNG is becoming increasingly important in stabilizing the variable output of renewable energy.

### The Changing Business Environment



## VOICE



**Ryosuke Tsuraru**

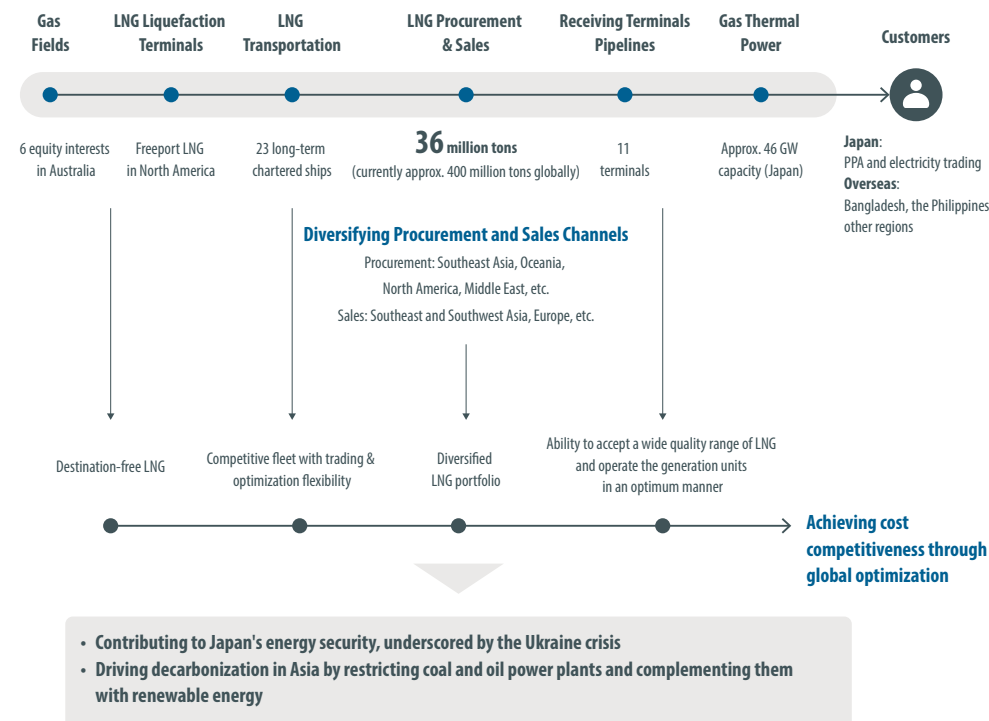
Chief Low Carbon Fuel Officer (CLCFO)  
and Head of the LNG Division

**As an integrated LNG value chain player, we ensure a stable supply and have advanced capabilities to manage demand fluctuations Providing solutions to the Japanese and Asian markets.**

We handle approximately 36 million tons of LNG annually, making us one of the largest players in the world. Leveraging this volume, we have strengthened our integrated value chain from gas field development to gas-fired power generation. By strengthening downstream assets such as LNG receiving terminals and gas-fired power plants, we enable flexible power generation operations. Additionally, by acquiring upstream and midstream assets like LNG liquefaction terminals and LNG fleets, we are building a flexible and stable LNG supply system. These initiatives will contribute not only to Japan's energy security but also to decarbonization initiatives in the country and across Asia. Going forward, we will continue to deliver solutions to our customers, particularly in Japan and Asia, by building a diversified LNG portfolio, optimizing LNG flows on a global scale, and promoting procurement and sales.

## Our LNG Strategy

### Strengthening the LNG Value Chain



## LNG Platform for Global Collaboration

We are building a high-value LNG portfolio through the organic collaboration of three key entities: two companies based in Singapore—JERA Global Markets (JERA GM), which swiftly executes short-term spot trades with high market liquidity, and JERA LNG Portfolio Strategy, which focuses on gathering market intelligence and leveraging contract specialists—and our headquarters, which engages in long-term contract origination closely aligned with upstream operations and domestic trade flows. In our upstream business, we have established local subsidiaries in Australia and the US to actively manage operations and generate investment returns. In our transportation business, we are expanding stable supply and optimization opportunities through flexible fuel transportation practices via our specialized LNG Marine Transport subsidiary.

## LNG Strategy (One of the largest global players in the LNG value chain)

### Strengthening the LNG Value Chain through Our Fuel Upstream Business

To date, we have enhanced the stable supply and competitiveness of Japan's energy by strengthening the LNG value chain through our participation in a full range of activities, from upstream production and transportation to storage, power generation, and sales. While the shift toward decarbonization is accelerating, LNG, with its superior economic efficiency and stability, is becoming increasingly important as a transition fuel. We will enhance our competitiveness and secure a stable supply of LNG by participating in upstream businesses.

As part of our specific business strategy, we have actively invested in gas field development and liquefaction projects in Australia and North America. Through investment in these businesses, we can secure highly competitive LNG on a long-term and stable basis.

Furthermore, to promote decarbonization, we are exploring carbon capture and storage (CCS) projects that can directly reduce CO<sub>2</sub> emissions from LNG projects, while also striving to further decrease CO<sub>2</sub> emissions across the entire LNG value chain. We will continue to focus on these strategies in our fuel upstream business, as we believe that they will contribute to enhancing supply stability and the competitiveness of our value chain.

### Building a Diverse LNG Portfolio

In response to the global LNG market and the diverse energy landscape in Japan and Asia, we are focused on enhancing our resilience to changes in the business environment and mitigating risks by carefully building a diverse LNG portfolio that strategically balances supply regions, contract timing, and contract term. With the expansion of U.S. LNG exports, the price indices used in LNG trading have diversified. As uncertainty in Japan's LNG demand grows due to the liberalization of the electricity market and the expansion of renewable energy, we are enhancing our ability to ensure stable supply and adapt to demand fluctuations by expanding flexible contracts like FOB and strengthening our LNG fleet.

We will continue to expand and diversify our sales channels by leveraging the flexibility of our LNG portfolio and the agility of JERA GM's optimization trading, while promoting LNG sales, primarily in Asia, where demand continues to grow. Through these strategies, we will strengthen our LNG portfolio and support the stable supply and decarbonization efforts in Japan and across Asia.

### Strengthening Japan's Energy Security through the Strategic Buffer LNG (SBL) Framework

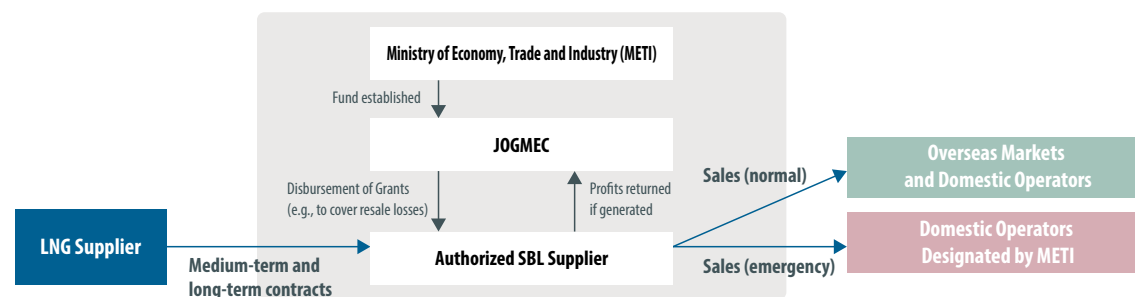
The global energy market has become increasingly complex and uncertain due to the situations in Russia, Ukraine, and the Middle East, underscoring the growing importance of securing stable fuel supplies. In addition, global demand for LNG as a transition fuel for decarbonization is rising.

Amid these circumstances, the Japanese government introduced the Strategic Buffer LNG (SBL) framework, enabling private companies to secure surplus LNG as a precaution against the risks of fuel supply disruptions. As Japan's largest LNG player, we committed to this project to ensure stable fuel procurement and were officially approved by the government as an authorized SBL supplier in November 2023. We will secure SBL from our LNG portfolio and provide it to designated domestic operators whenever the government deems it necessary, such as during sudden energy supply constraints in Japan.

In FY2023, we secured three SBL cargoes during the winter season, when demand typically peaks, to prepare for potential supply shortages.

We will continue our efforts to ensure the stable procurement of LNG and contribute to bolstering domestic energy security.

#### Strategic Buffer LNG (SBL) Framework



Source: Based on materials from the Agency for Natural Resources and Energy

## FOCUS Synergistic Effects of LNG and Renewable Energy

Renewable energy can experience periods of near-zero power generation lasting several weeks. This phenomenon, called the "dark doldrums," occurs in places like the UK, Germany, and Japan and presents a significant challenge to maintaining a stable supply. To balance the fluctuations in solar output and ensure a stable supply, solutions such as thermal power generation and battery storage are essential.

However, given the significant seasonal demand fluctuations (tens of millions of kW over several months), battery storage alone struggles to manage these variations, making it crucial to use thermal power generation, where output can be easily adjusted. Combined cycle power generation fueled by LNG is highly adaptive to load changes in electricity demand compared to other forms of thermal power generation. At our LNG-fired power plants, output is fine-tuned by cycling equipment on and off more than 10,000 times a year. We believe LNG also plays a key role in modulating output to accommodate fluctuations in power generation from weather-dependent renewable energy sources, helping to ensure a stable supply on a daily basis.



# Hydrogen & Ammonia Strategy (Pioneering player in the hydrogen & ammonia value chain)

## Challenges in Hydrogen & Ammonia

As part of its “Basic Hydrogen Strategy,” the Japanese government aims to work with resource-rich countries to build an international supply chain for hydrogen & ammonia. The goal is to achieve a hydrogen society as soon as possible and to strike a balance between strengthening energy security and industrial policy.

To realize a hydrogen society, there are economic and technological issues that must first be resolved. By partnering with companies both in Japan and abroad, we are involved in economically viable hydrogen production projects and are actively working on technological advancements to contribute to the establishment of related technologies and cost reductions.

Drawing on our experience from across the value chain—from fuel development to power generation—we will take the lead in establishing a hydrogen & ammonia supply chain. We plan to leverage the significant demand for hydrogen as a power generation fuel to serve as a catalyst for building infrastructure, promoting the adoption of hydrogen in non-power generation industries, and expanding decarbonization solutions to regions such as Asia, with the goal of fortifying the supply chain.

### VOICE



**Koichi Morisaki**

Chief Thermal Transition Officer (CTTO)  
and Head of the Domestic Zero-  
Emission Thermal Power Promotion  
Division

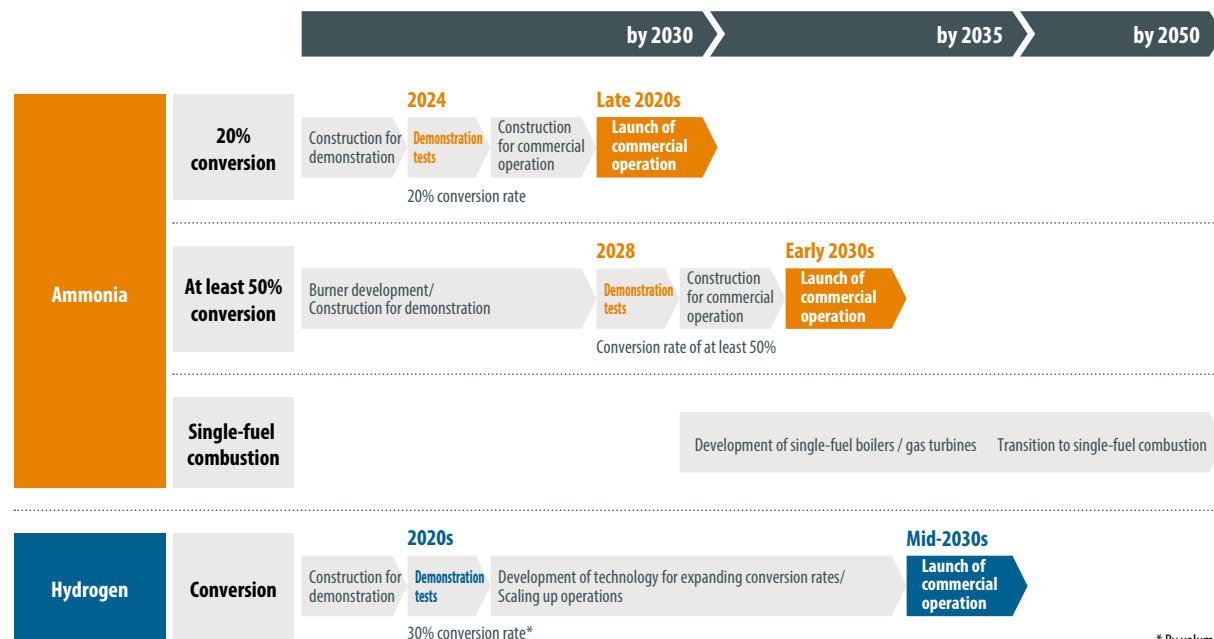
### Zero-emission thermal power generation will drive the acceleration of a hydrogen society and lead Japan's path to decarbonization.

In pursuit of zero-emission thermal power, we will begin converting 20% of coal to ammonia in the 2020s. From 2030 onward, we intend to expand this conversion to include hydrogen in addition to ammonia, ultimately aiming for single-fuel combustion.

We believe that the large-scale demand for electricity will drive the establishment of a hydrogen supply chain, which in turn will promote its use in other industries working toward decarbonization, thereby accelerating the realization of a hydrogen society.

Because decarbonization is a global challenge, we consider zero-emission thermal power to be one of the key strategies for driving decarbonization in rapidly growing economies like those in Asia.

## Our Plans to Introduce Ammonia & Hydrogen into Power Generation



## Message from an Outside Expert



**Nobuo Tanaka**

Chair, Innovation for Cool Earth  
Forum (ICEF) Steering Committee  
Former Executive Director,  
International Energy Agency (IEA)  
CEO, Tanaka Global Inc.  
JERA Global Advisory Experts

### Ammonia Transition to Drive Decarbonization and the Creation of a Hydrogen Society

To be honest, I was surprised when JERA announced in 2020 that the company would aim for zero CO<sub>2</sub> emissions by 2050, even before the governments announcement. I wondered how one of the world's largest thermal power companies was supposed to make this happen. They explained that they planned to gradually convert coal to clean ammonia and eventually move to 100% single-fuel combustion and that they would do the same with clean hydrogen for gas turbine power generation. It was truly eye-opening. The Mirai fuel cell vehicle was meant to pave the way for Japan's hydrogen future, but it didn't gain much traction. The reality is that without serious commitment from the thermal power, steel, and chemical industries, building a hydrogen society won't be feasible. Japan was the first in the world to introduce liquefied natural gas (LNG), which sparked the golden age of gas. This success was made possible by first securing long-term demand, a crucial step in building a global supply chain. Now, the success of Japan's green transformation (GX) hinges on whether we can replicate with hydrogen the global innovation that LNG achieved. And JERA holds the key.

## Hydrogen & Ammonia Strategy (Pioneering player in the hydrogen & ammonia value chain)

### The Role of Hydrogen & Ammonia Power Generation in Achieving Regional Decarbonization

In Japan, the movement toward regional decarbonization is becoming more active, and particularly in areas with concentrated industries, discussions are progressing toward social implementation through the integrated creation of supply and demand for clean fuels such as hydrogen & ammonia.

One such initiative is the public-private collaboration within the Central Japan Hydrogen & ammonia Association in the Chubu region, where we are working to develop a supply chain model that integrates large-scale ammonia use at our thermal power plants with its application in industry.

By leveraging the support provided by the Hydrogen Society Promotion Act, enacted in May 2024—including subsidies for developing hydrogen supply infrastructure and bridging the price gap between hydrogen & ammonia, and conventional fuels—we are working to introduce hydrogen & ammonia power generation and promote their use in the industrial and transportation sectors, contributing to decarbonization both regionally and nationwide.

### Technological Trends in the Production and Utilization of Hydrogen & Ammonia

Hydrogen & ammonia are expected to be widely used in power generation, transportation, and industry, but to make this a reality, it is essential to develop hydrogen carrier technology that can support large-scale maritime transport and storage.

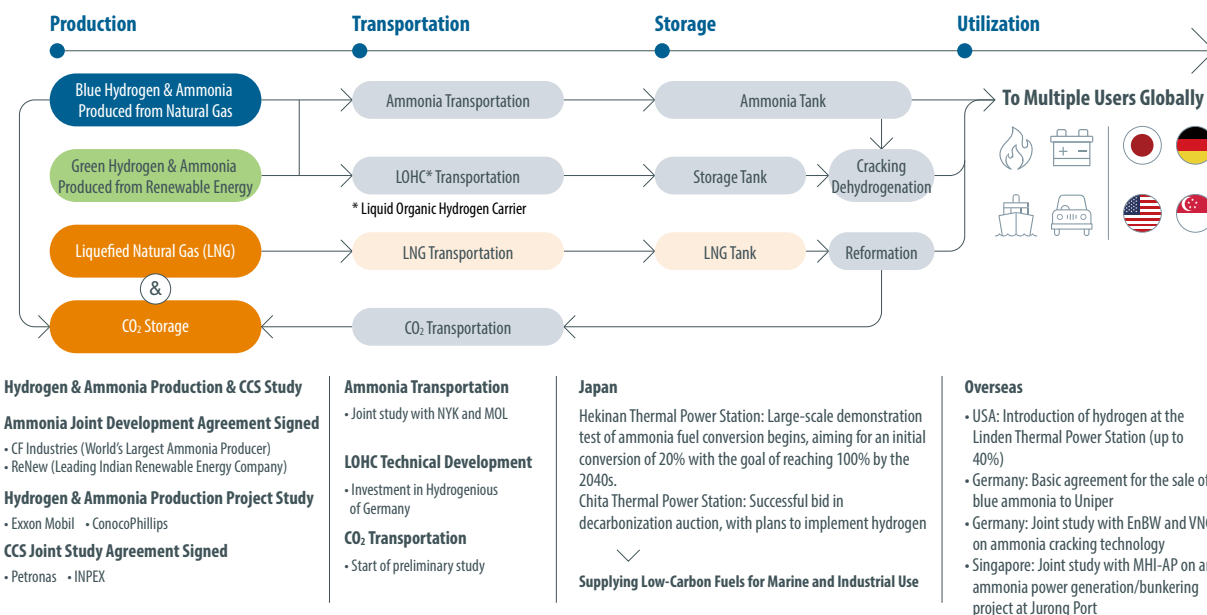
We aim to use ammonia, which can be transported and stored at low cost, as both a hydrogen carrier and a power generation fuel. Our involvement in initiatives such as the Green Innovation Fund Projects allows us to push forward with technology development, spanning from the production of hydrogen & ammonia to their use in power generation, with one of our key initiatives being the development of efficient, low-cost methods to convert ammonia into hydrogen.

We are also working with the Clean Fuel Ammonia Association (CFAA) and other organizations to explore international standardization as part of efforts to promote the widespread adoption of hydrogen & ammonia.

By actively pursuing the development of decarbonization technologies, we aim to establish the technologies required to build supply chains and contribute to the decarbonization of energy.

**JERA aims to become the first mover in building a hydrogen & ammonia value chain, developing a platform to meet electricity demand, and providing decarbonization solutions to other industries (multipurpose initiatives).**

As we work to establish the hydrogen & ammonia value chain, we are moving forward with collaborations and discussions with key domestic and international players, drawing on the trusted partnerships we've built through our existing LNG and other businesses. Focusing on North America, the Middle East, and Asia, we are considering investments in blue & green hydrogen & ammonia production projects alongside our partners, and we are making progress in building the value chain by conducting studies on the transport of fuel ammonia with NYK and Mitsui O.S.K. Lines (MOL).



## FOCUS Innovation Case Study

In July 2024, we began supplying fuel ammonia to a tugboat equipped with an ammonia combustion engine. This marks a world first in using the truck-to-ship method\* to supply fuel ammonia to a commercial ship. Leveraging four decades of experience with ammonia for denitrification in power plants and insights from our LNG bunkering operations, we have been able to implement the truck-to-ship supply method in collaboration with our partners.

\*One method of supplying fuel to ships. Supplied through a flexible hose from a tanker truck.



Tugboat equipped with ammonia combustion engine

# Renewable Energy Strategy (Global player contributing to hydrogen & ammonia production)

## Recognition of Renewable Energy Issues

The renewable energy industry has faced challenges in recent years, including high costs due to rising inflation rates and supply chain disruptions. Given the global nature of the industry, geopolitical issues have also caused a level of uncertainty and there is increasing scrutiny on energy security.

At the same time, progress has been made with the development of new technologies, improved turbine efficiencies, and strong partnerships. There is also global recognition of the industry's importance, including its role in developing other low-carbon solutions such as hydrogen & ammonia. Going forward, reaching global renewable energy targets will require significant support from governments for the entire value chain to promote clean solutions.

### VOICE



**Satoshi Yajima**

Chief Renewable Energy Officer (CREO)  
and Chief Solution Service Officer  
(CSSO)

**The Center of Excellence (COE) and local teams will work closely together to develop wind and mega solar projects on a global scale.**

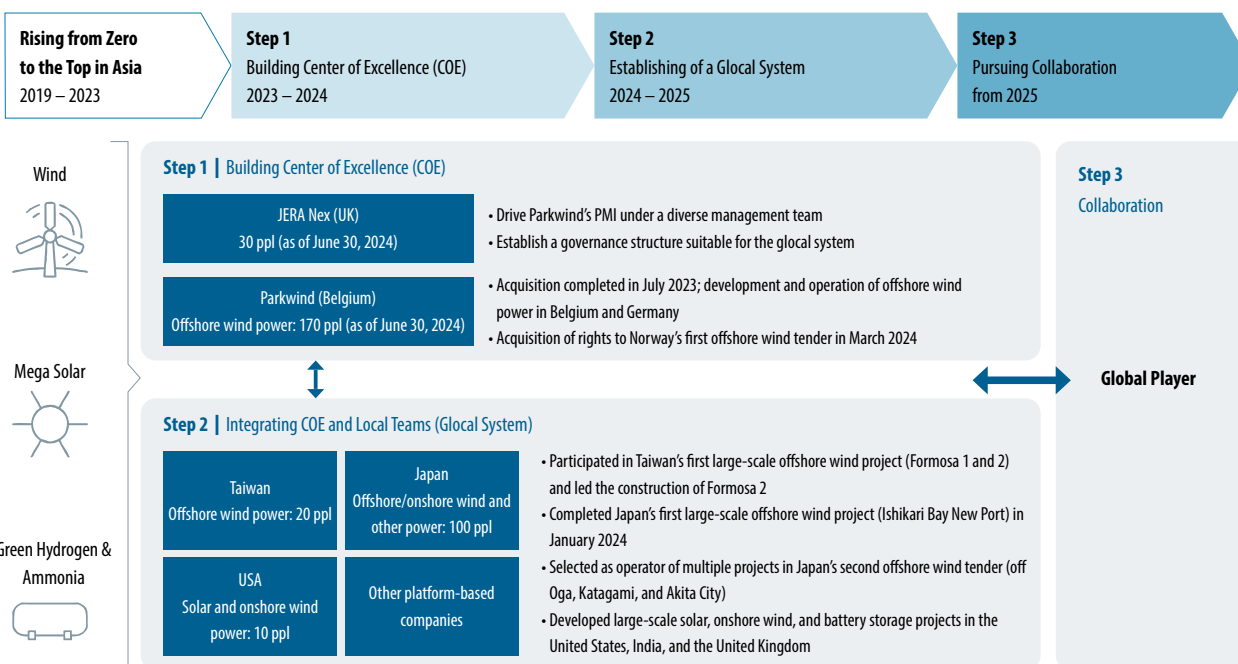
To further expand our renewable energy business, where competition is fierce and growing, it is essential to build a professional organization that integrates project development, construction, and operation, while efficiently utilizing the knowledge and human resources of the group.

In 2024, we established JERA Nex in the UK as a base for our renewable energy business and last year we acquired Parkwind, Belgium's largest offshore wind power company. This acquisition aims to create a center of excellence by consolidating global knowledge and human resources. In the future, we will integrate our existing renewable energy

businesses in Japan and overseas, along with our 330 domestic and overseas professionals.

Our focus is on reaching a cumulative renewable energy development capacity of 20 GW by 2035, using global expertise and local business development talent to build a global (global/local) system.

As the renewable energy business is closely linked to the production of green hydrogen & ammonia—JERA Nex has a vital role to play in our Growth Strategy.



### Step 1: Building Center of Excellence (COE)

JERA Nex is building a center of excellence for JERA's renewable capacity, consolidating existing projects and top-tier industry expertise in a dedicated renewable energy business with the focus and agility to scale rapidly. Headquartered in London, JERA Nex brings together teams and projects in Europe and the UK. This location enables us to leverage the deep experience and talent in the region with the world's most advanced renewable energy industry, and it provides us with direct access to established renewable players for future partnerships.



Step 2: Integrating COE and Local Teams (Glocal System)

The next stage will be the consolidation of projects, teams, and expertise across other regions, including Japan, Taiwan, the United States, and the Middle East. JERA Nex will collaborate with local teams in each region, and share knowledge and experience as we work together on project development, construction, operation, and management.

JERA Nex will also continue to work closely with the JERA Group, particularly on the role of renewable energy in the development of low-carbon fuels (LCF) such as green hydrogen & ammonia.

By bringing JERA Nex’s people and projects together, the company will build recognition of its combined expertise in existing and new markets. At the same time, JERA Nex will continue a local approach to project development, focusing on collaboration with communities and local knowledge to deliver high-quality projects. This is because of the importance we place on working with local communities and their knowledge to continue contributing to the region through energy solutions.

JERA Nex is already working as one team across its global project portfolio, including the Formosa 1 and 2 projects in Taiwan, and the Ishikari Bay New Port in Japan. New projects, including the SNII project in Norway and the offshore wind (off Oga, Katagami, and Akita City) project in Japan, are also under way.

Step 3: Pursuing Collaboration

Collaboration across the global renewable energy value chain will be critical in delivering high-quality renewable energy projects.

Much of JERA Nex’s existing portfolio, particularly in offshore wind, has grown in size and volume through strategic partnerships. By pooling resources with partners, JERA Nex has been able to deliver complex projects that require significant investment.

JERA Nex will contribute to energy transitions in each region by leveraging its expertise in renewable energy. JERA Nex will also strengthen its capacity through selective partnerships and acquisition opportunities to build a robust pipeline. By forming an attractive business entity that has a certain scale of renewable energy operations and diversity of business areas, JERA Nex will seek new alliances and integration with global players.

FOCUS Renewable Energy Risk Management

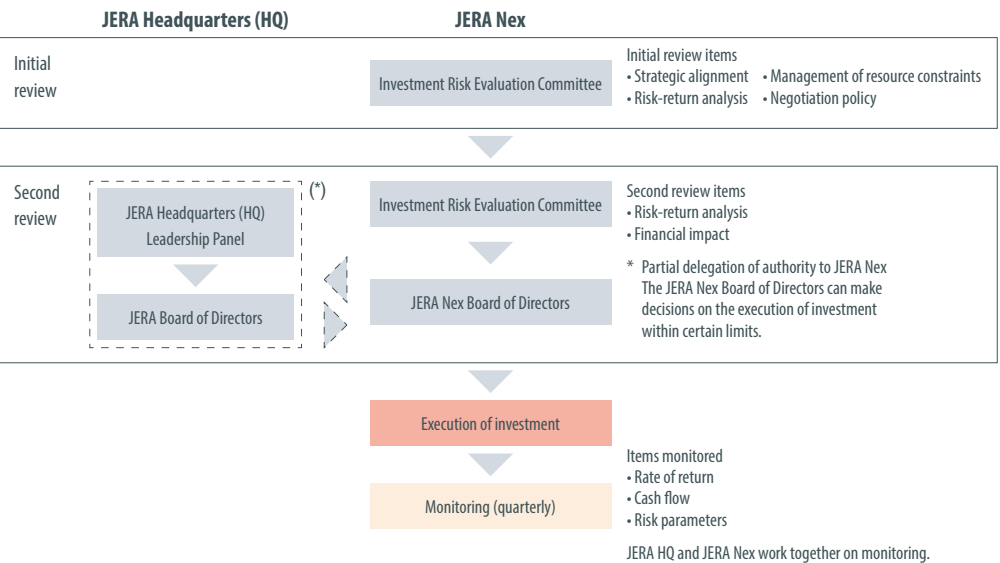
JERA Nex operates independently and autonomously within certain financial and operational limits. Investment decisions are made through the Board of Directors, which consist of directors dispatched from JERA representatives who are familiar with the business and outside directors with expertise and experience, taking into account risk-return/investment suitability and other factors.

By placing members of JERA representatives on the Board of Directors and in management positions, JERA aims to make its corporate mission and vision well known and foster synergies among group companies. At the same time, emphasis is placed on factors crucial for the development of renewable energy projects, such as the agility of decision-making by overseas companies.

For investments above a certain size, JERA makes the final decision. However, JERA and JERA Nex work together to regularly monitor factors crucial for the development of each renewable energy project, ensuring proper risk assessment and management.

JERA Nex will continue to expand its presence in the renewable energy market, adapting to prevailing geopolitical and economic conditions, including supply chain disruptions and other risks. The company will apply strict investment criteria and strong governance as it seeks further growth.

Process from Screening to Monitoring of Investment Projects



# Message from the CFO



Corporate Vice President,  
Managing Executive Officer,  
and Chief Financial Officer (CFO)

**Kazuo Sakairi**

## Reflecting on the Five Years Since 2019

Five years have passed since the fuel, power generation, overseas operations, and other assets of both shareholder companies were fully integrated into JERA in 2019 to form the current company. As Japan's largest power generation company, supplying approximately 30% of Japan's total electricity, we have a great responsibility to provide a stable supply of electricity to Japan. Against this backdrop, the Russian invasion of Ukraine began in 2022, compounding the stagnation of renewable energy generation in Europe that started around 2021. Consequently, LNG prices (JKM: S&P Global's spot LNG price index for Northeast Asia) surged to a historic high of \$84.8 on March 7, 2022, creating a significant crisis in fuel procurement for Japan, which relies almost 100% on overseas sources for its power generation fuel. In response to this situation, with the collaboration of the Japanese government, we boldly and swiftly implemented initiatives to prevent major power outages in Japan. These included the spot procurement of seven million tons of LNG through our Singapore subsidiary, JERA Global Markets (JERA GM). In addition, together with fuel procurement, we have secured the power generation capacity to meet electricity demand by proceeding with the reconstruction (replacement) of power plants as planned.

Meanwhile, in October 2020, JERA announced "JERA Zero CO<sub>2</sub> Emissions 2050," which aims to decarbonize power plants and the entire value chain to achieve the carbon dioxide (CO<sub>2</sub>) reduction targets Japan has committed to under the Paris Agreement. This includes hydrogen conversion at the Linden Gas Thermal Power Station in the US and ammonia conversion at the Hekinan Thermal Power Station, where demonstration tests aimed at CO<sub>2</sub>-free power generation are being conducted in Japan. We also started collaborating with energy companies across the globe, including through international tenders for the procurement of low-carbon fuels such as hydrogen & ammonia. Furthermore, in the field of renewable energy, in addition to participating in offshore wind power projects in Taiwan and the UK, the company acquired Parkwind, a major Belgian offshore wind power producer, and Japan's Green Power Investment (GPI) in 2023, as well as winning a domestic offshore wind power tender. In April 2024, we established JERA Nex, a company focused on renewable energy development and operations, in London, UK. By concentrating all our skills, talent, and management resources related to renewable energy at this Center of Excellence (COE), we aim to achieve our 2035 target of 20 GW and will drive development efforts globally.

In addition, we are pursuing a platform-based strategy that aims to expand our profit base while contributing to the provision of electricity and decarbonization in Asia, which is experiencing rapid economic growth. We have invested in Summit Power, the largest power generation company in Bangladesh, and Aboitiz Power in the Philippines. These initiatives have been well received in Asian countries that have difficulty relying solely on renewable energy to meet their growing electricity needs, and we have been commissioned by Southeast Asian countries to create a roadmap for their decarbonization.

While the environment around our company has been changing significantly each year, we are steadily carrying out our mission of providing cutting-edge solutions to the world's energy issues. To enhance understanding,

## Message from the CFO

we have presented these initiatives at international conferences such as the Davos Forum and engaged in direct dialogue with more than 350 investors, governments, and other key players.

Next, regarding the status of profit and loss, finance, and synergies, we are making steady progress toward achieving the 2025 profit and loss targets and the financial KPIs set in 2019. Moreover, the synergistic effect of integrating the businesses carved out from the two shareholder companies has resulted in the early achievement of the initial five-year target of 100 billion yen, one year ahead of schedule, through the efficiency improvement of power plants, standardization of operations, and investments in new business fields, creating approximately 120 billion yen in effects to date.

The net profit (excluding time lag) was targeted at a cumulative 550 billion yen over the five years up to FY2023. Despite the decrease in profits due to special factors such as the sharp rise in LNG spot prices and the recording of estimated liabilities following the introduction of International Financial Reporting Standards (IFRS), the actual results reached 799.4 billion yen (140% of the target). In addition, cash flow has steadily increased from around 300 billion yen per year at the time of planning to consistently exceeding 500 billion yen.

With regard to ROIC, which indicates the efficiency of invested capital, we are targeting 4.5% by 2025. This level is designed to ensure that we enhance our corporate value by achieving a return on our weighted average cost of capital (WACC) of at least 1%. Our business often requires a considerable amount of time from investment decision to return, making it challenging to achieve results within a single fiscal year. However, we are committed to strengthening our earning power to meet this goal and further enhance corporate value.

Lastly, with respect to the investments that demonstrate our growth potential, we almost achieved the target of 1.45 trillion yen for the three-year period from 2019 to 2021. This was due to the significant funds required to respond to the surge in resource prices triggered by the aforementioned invasion of Ukraine and the inability to carry out discovery projects as expected due to the COVID-19 pandemic. However, we expect to exceed the



CFO Sakairi speaks at a town hall meeting in Perth, Australia, JERA's largest LNG procuring country.

investment target of 1.4 trillion yen planned for the four years from 2022 to 2025.

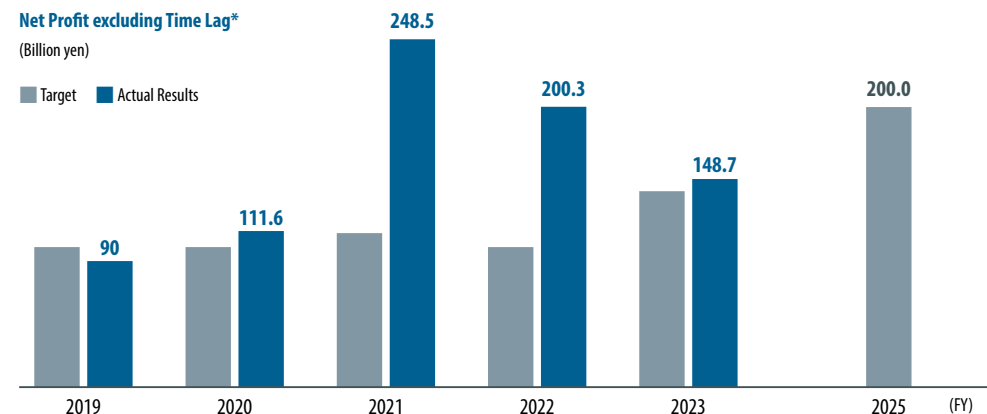
### Net Profit (excluding time lag)

In FY2023, despite an increase in profits from the Overseas Power Generation and Renewable Energy Business and improvements in the write-down on coal and other contracts at the end of the period, there was a decrease of 51.6 billion yen compared with the previous year to 148.7 billion yen (excluding time lag) due to factors such as the impact of fuel procurement prices and the unit cost of fuel inventories at the beginning of the period, and a decrease in fuel business profits. (The profit for the period, which includes time lag, increased by 381.7 billion yen year-on-year to 399.6 billion yen due to time lag turning from a loss to a profit.) Although there was a decrease in profit starting in FY2022, we believe the temporary increase in profits in FY2022 was due to the expansion of transactions centered on Europe by JERA GM amid the unstable fuel market conditions caused by the Russia-Ukraine invasion. We assess that we are on track to achieve the target consolidated net profit of 200 billion yen for FY2025.

### We have reliably met our previously established profit targets and are determined to uphold the profit target for FY2025

#### Net Profit excluding Time Lag\*

(Billion yen)



\* The target for net profit for the period 2019–2021 is based on the business plan announced in April 2019, the target for 2022 is based on the value announced in October 2022, and the target for 2023–2025 is based on the new management target announced in May 2022.

### Balance Sheet Management

#### Total Assets

Total assets decreased by approximately 600 billion yen compared to the previous year due to a significant decrease in derivative assets and liabilities\*. This was triggered by a decline in resource prices despite an increase in assets following the acquisition of Parkwind, a major offshore wind power generation company in Belgium, and investment in GPI, a domestic renewable energy power generation company.

\* The outstanding balance of transactions recorded as offsetting entries in the fuel volume adjustment initiative at JERA GM



## Message from the CFO

### Aiming to achieve a financial structure that is valued by the capital market

	Performance indicators	FY2023	FY2025 target	Target level by FY2035
Profitability	Net profit*	148.7 billion yen	200 billion yen	350 billion yen
	EBITDA*	569.7 billion yen	500 billion yen	700 billion yen
Capital efficiency	ROIC*	4.1%	Approx. 4.5%	ROIC-WACC Spread 150 bps or higher
	WACC	—	Approx. 3.5%	
Growth potential	CFI	528.4 billion yen	Cumulative total for FY2022–FY2025: Approx. 1.4 trillion yen	Cumulative total for FY2024–FY2035: Approx. 5 trillion yen
Financial health	Net DER	0.6x	1.0x or lower	0.5x or lower
	Net Debt/EBITDA*	2.9 years	4.5 years or less	2 years or less
Reference	ROE*	6.3%	Approx. 9.0%	Approx. 9.0%

\* Excluding time lags after fuel cost adjustments

### Interest-Bearing Liabilities and Equity

In FY2023, borrowings and commercial paper decreased due to factors such as a significant change in time lag resulting from an improvement in the fuel market compared to the previous year. As a result, the balance of interest-bearing liabilities was about 3.1 trillion yen, a decrease of about 400 billion yen from the previous year. Capital increased by approximately 600 billion yen from the previous year to about 2.6 trillion yen, mainly due to an increase in net profit and foreign currency translation adjustments. As a result, the net debt-to-equity ratio, a financial health indicator, has also improved to 0.6x, in line with the target of 1.0x or less in FY2025.

In addition, although ROIC, which indicates capital efficiency, has deteriorated compared with the previous year due to factors such as a decrease in net profit (excluding time lag), we are committed to improving profitability and achieving our target of 4.5% set for FY2025.

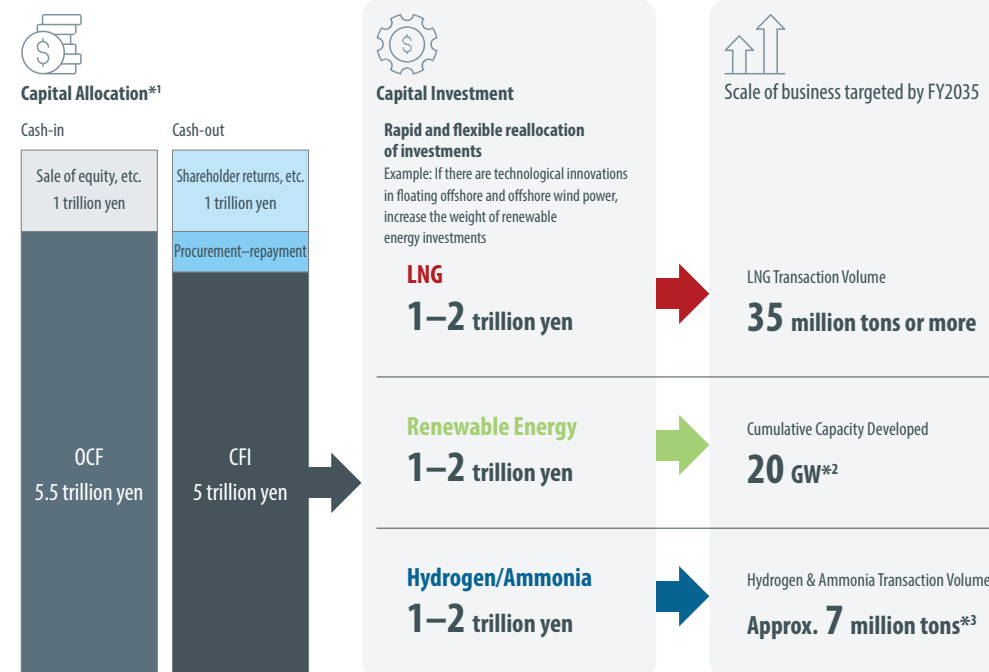
### Capital Allocation

I would like to explain our future capital allocation as presented in “Financial Strategy and Financial Target Levels Targeted for by 2035,” published in May 2024. We expect to generate 5.5 trillion yen in operating cash flow (OCF) in the cumulative period from 2024 to 2035, and we plan to use these funds for investments totaling 5 trillion yen. As a breakdown, we will invest 1 to 2 trillion yen in each of our three strategic positionings (LNG,

renewable energy, and hydrogen & ammonia) listed in our growth strategy. Over the long term, until 2035, we aim to flexibly change the allocation of these three strategic positionings in response to market conditions, technological innovations, and policy trends. This will enable us to become a corporate company that can grow sustainably regardless of changes in the environment or policy. At the same time, we aim to achieve an LNG transaction volume of more than 35 million tons, a cumulative renewable energy development capacity of 20 GW, and a hydrogen & ammonia transaction volume of approximately seven million tons.

• Flexibly allocate investments to the three strategic positionings (SPs) set out in the growth strategy while monitoring market conditions, technological innovation, and policy trends, using OCF as the source of funds.

• This will enable us to achieve a corporate structure that can grow sustainably regardless of changes in the environment or policy.



\*1 Cumulative estimate for FY2024 to FY2035

\*2 Investment decisions will be made with discipline, focusing on high-quality projects while monitoring market conditions

\*3 This initiative will be gradually detailed, considering the underlying policies and other assumptions. Should these assumptions change significantly, a revision will be made.

## Message from the CFO



### Strengthening the Finance Group Function to Enhance Corporate Value and Reduce Capital Costs

JERA aims to become a global company rooted in Japan and join the ranks of the world's leading energy companies. As CFO, I have been working to enhance corporate value while assisting the CEO. Specifically, over the past five years, I have been pursuing initiatives in the following four areas to support growth.

First, I have worked on strengthening our operational infrastructure to support prompt and accurate decision-making. As the business environment surrounding our company becomes increasingly complex, I am working on building a financial infrastructure system aimed at data-driven management, enabling us to quickly obtain and analyze a wide range of reliable data for simulations. We have also finalized the implementation of IFRS to enhance transparency and earn the confidence of our stakeholders both domestically and internationally. These efforts have helped standardize and streamline our business processes, allowing our employees to focus on higher-value-added work.

The second area I have focused on is proper capital management and financial governance. JERA requires substantial investment capital for its operations, making effective financial risk management crucial. This involves ensuring that procured funds align with our mission, vision, and growth strategy, contribute to building a

portfolio that enhances corporate value, and that each investment generates returns exceeding the cost of capital.

Third is my role as a trusted business partner for management and business divisions. I provide advice on investments, loans, business acquisitions, and divestitures in each division based on my expertise in accounting, taxation, M&A, and project finance. Through the activities of JERA Ventures, which launched in 2023, I also contribute to discovering technological innovations and investment opportunities.

Finally, the fourth area of my focus has been appropriate and active engagement with external stakeholders, particularly investors. By engaging in dialogue, I aim to ensure that our initiatives are correctly understood by stakeholders both domestically and internationally. I also aim to link them to management decisions that contribute to enhancing corporate value by listening to their expectations and requests and directly communicating them to management.

These four areas are supported by a highly diverse team of professionals, including mid-career hires in the finance and accounting departments and staff at overseas sites. When I joined in 2019, the Finance and Accounting Department in Japan consisted of just over 40 people. However, as of July 2024, it has grown to a team of over 210 members, with approximately 70% being mid-career or new graduate hires and about 30% women, bringing together talent with diverse backgrounds. On a consolidated basis, we also have around 100 finance and accounting professionals, mainly within our key domestic and international subsidiaries, and we aim to achieve integrated global management by working closely with these teams.

The business environment is undergoing rapid transformation, driven by geopolitical risks, climate change issues, and the liberalization of the electricity market. Despite these changes, JERA's Finance and Accounting Division remains focused on adopting innovative approaches, leveraging global talent, and fostering a flat organizational structure and a culture of innovation—all without losing sight of JERA's mission and vision.

### Leading the Growth Strategy Toward 2035 Globally as CFO.

As JERA's CFO, I am committed to supporting our global initiatives by managing our profit and loss, maintaining a sound balance sheet, and building a company that earns the trust of our many stakeholders, including investors and financial institutions. At the same time, I badly want to create a workplace where every employee feels proud of the company and can share a sense of happiness and well-being with their families.

Executing a growth strategy that supports our mission and vision is one of our great challenges. I believe that it is an essential part of my role as CFO to occasionally apply the brakes to ensure that our investments do not involve excessive risk. With this in mind, I will remain focused on the financial KPIs we have set for 2035, helping to maintain financial discipline and enhance corporate value.

# JERA Zero CO<sub>2</sub> Emissions 2050

Committed to Achieving Zero CO<sub>2</sub> Emissions across Domestic and Overseas Operations

## JERA Zero CO<sub>2</sub> Emissions 2050

- ▶ **JERA's mission is to provide cutting-edge solutions to the world's energy issues.**
- ▶ **We are taking on the challenge of achieving net-zero CO<sub>2</sub> emissions in Japan and around the world in hopes of creating a more sustainable society for us all.\***

\* JERA Zero CO<sub>2</sub> Emissions 2050 is premised on steady advances in decarbonization technology, economic viability, and consistency with government policy. We are developing our own decarbonization technologies and taking the initiative to ensure economic viability.

## Three Approaches of JERA Zero CO<sub>2</sub> Emissions 2050

# 1

### Combining Complementarity Renewable Energy with Zero Emission Thermal Power

We will achieve our vision through a combination of renewable energy and zero CO<sub>2</sub> emission thermal power generation. The adoption of renewable energy is supported by thermal power capable of generating electricity regardless of natural conditions. JERA will promote the adoption of greener fuels and pursue thermal power that does not emit CO<sub>2</sub> during power generation.

# 2

### Establishment of Country and Region-Specific Road Maps

We will achieve zero CO<sub>2</sub> emissions by establishing roadmaps that chart optimal solutions for each country and region. As the energy situation varies by country and region, with different solutions available based on the feasibility of renewable energy options and the presence of pipelines and transmission lines, we will work with stakeholders to establish country and region-specific roadmaps. We have already developed a roadmap for our business in Japan, which we will extend to other countries and regions.

# 3

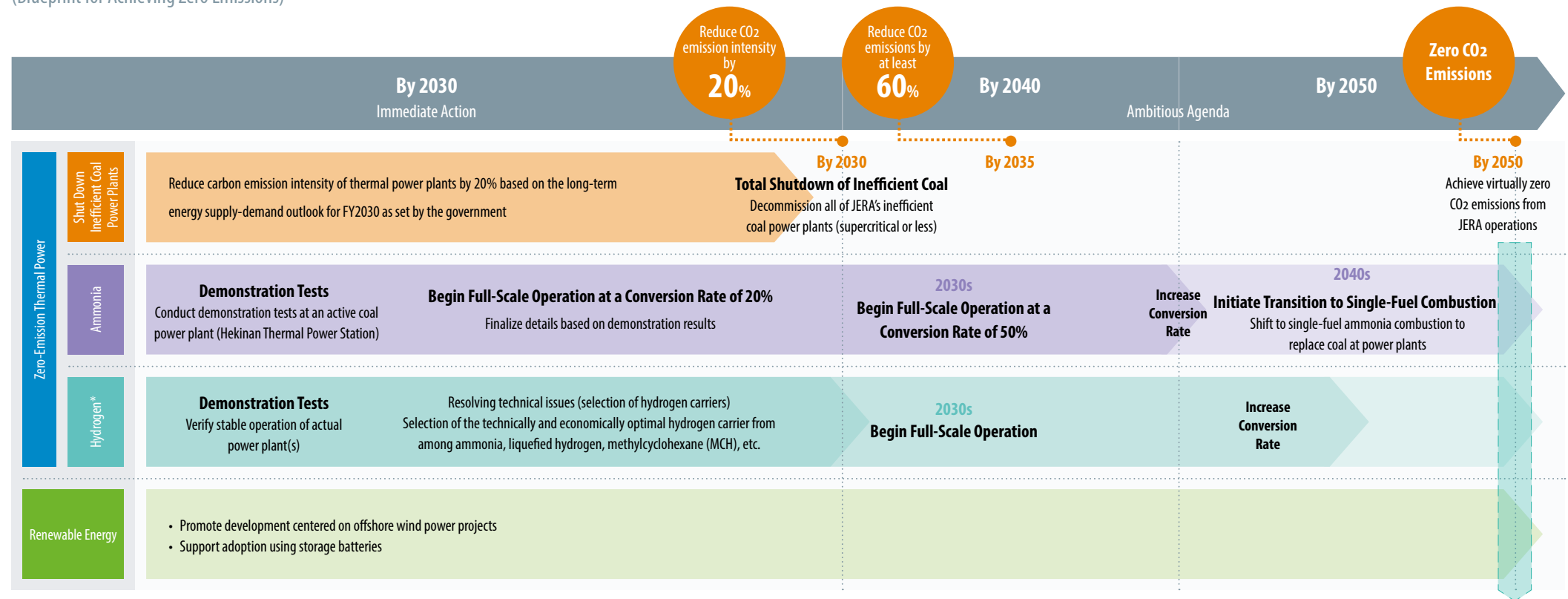
### Ensuring Smart Transitions

We will achieve zero CO<sub>2</sub> emissions through our smart transition strategy, which combines innovative and viable technologies available when adoption decisions are made. This approach will lower technical risk and facilitate a transition to a green society.



# JERA Zero CO<sub>2</sub> Emissions 2050 Roadmap for Its Business in Japan

(Blueprint for Achieving Zero Emissions)



This roadmap will evolve incrementally, adapting to changes in government policy and other relevant conditions, and will be revised as needed.

\* We are also considering the use of CO<sub>2</sub>-free LNG.

By 2050, CO<sub>2</sub> emissions from power plants still using fossil fuels will be offset using technologies like CO<sub>2</sub>-free LNG

## JERA Environmental Target 2030

JERA is actively working to reduce CO<sub>2</sub> emissions. For domestic operations, we will achieve the following by FY2030:

- Decommission all inefficient coal power plants (supercritical or less) and conduct demonstration tests of conversion to ammonia at high-efficiency (ultra-supercritical) coal power plants.
- Promote the development of renewable energy centered on offshore wind power projects and work to further improve the efficiency of LNG thermal power generation.
- Reduce carbon emission intensity of thermal power plants by 20% based on the long-term energy supply-demand outlook for FY2030 as set by the government.

## JERA Environmental Target 2035

JERA aims to reduce CO<sub>2</sub> emissions from domestic operations relative to FY2013 by at least 60% by FY2035 through the following initiatives:

- Strive to develop and adopt renewable energy in Japan, given expanded adoption under the national government's 2050 carbon-neutral policy.
- Commit to reducing carbon emission intensity from thermal power generation by promoting hydrogen & ammonia conversion.

"JERA Zero CO<sub>2</sub> Emissions 2050 for Its Business in Japan" and the "JERA Environmental Targets" are premised on steady advances in decarbonization technology, economic rationality, policy consistency, and the business climate under which these goals will be realized.

These targets have been formulated in alignment with Japan's greenhouse gas reduction goals and long-term strategy, both of which were established with an eye toward realizing the global ambition set forth in the Paris Agreement—that of limiting the global average temperature increase to as close to 1.5°C above pre-industrial levels as possible.

# JERA Zero CO<sub>2</sub> Emissions 2050

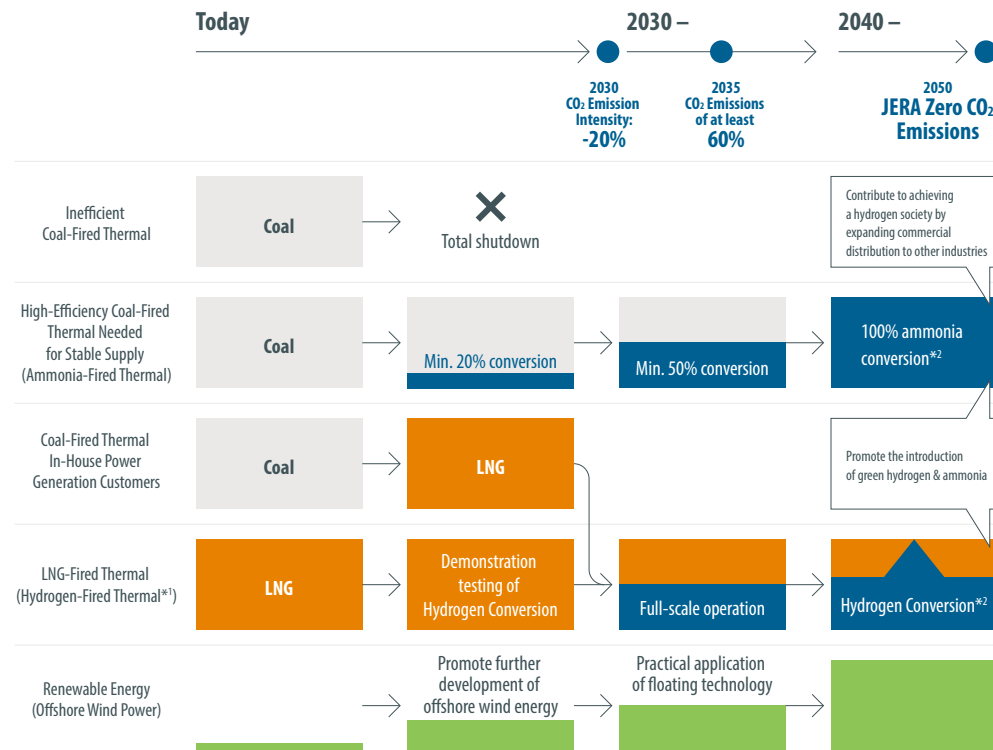
## Zero-Emission Transition Plan (Japan, Asia)

### Leading the Decarbonization of Japan's Power Sector with Renewable Energy and Zero-Emission Thermal Power

In Japan, we promote zero-emission thermal power generation by converting to hydrogen-based fuels.

By 2030, we plan to decommission all of JERA's inefficient coal power plants and convert the coal-fired thermal necessary for stable supply to ammonia-fired thermal, ultimately eliminating coal-fired power generation.

While promoting the development of renewable energy sources, especially offshore wind power, we will also consider the use of CCS and CCUS as options, keeping an eye on technological development trends.



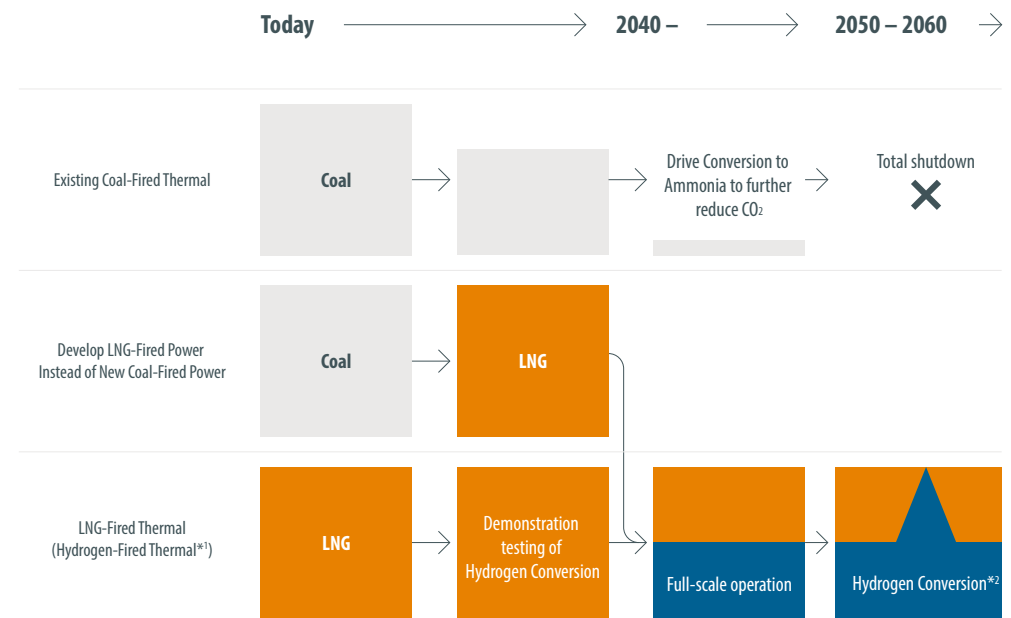
These initiatives will gradually be specified in more detail as government prerequisites become clearer, and reviewed if there are major changes in such conditions.

\*1 Consider use of CO<sub>2</sub>-free LNG \*2 Using green or blue hydrogen & ammonia

### Expanding the Use of LNG in Asia

In contrast, in Asia, we will first develop LNG-fired power instead of new coal-fired power, thereby limiting the increase in CO<sub>2</sub> emissions associated with growth in electricity demand.

At the same time, we will work toward a realistic transition by introducing distributed renewable energy and promoting ammonia conversion of coal for the future.



These initiatives will gradually be specified in more detail as government prerequisites become clearer, and reviewed if there are major changes in such conditions.

\*1 Consider use of CO<sub>2</sub>-free LNG \*2 Using green or blue hydrogen & ammonia

## SECTION

# Business Initiatives

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# Our Value Chain and Reporting Segments

## Owning the Entire Fuel and Thermal Power Value Chain

We are involved in the entire value chain of fuel and thermal power, including upstream operations, transportation, storage (fuel terminal operations), power generation, and wholesale.

Of particular note here is LNG. We handle approximately 36 million tons of LNG per year—one of the world's largest volumes—and as one of the top power providers in Japan, we generate approximately 30% of the country's electricity. Most of our power plants are located in the Kanto and Chubu regions. Japan is surrounded by ocean and lacks international transmission lines to connect it with neighboring countries, so our power plants help the country maintain a stable supply of electric power.

## Our Three Reporting Segments

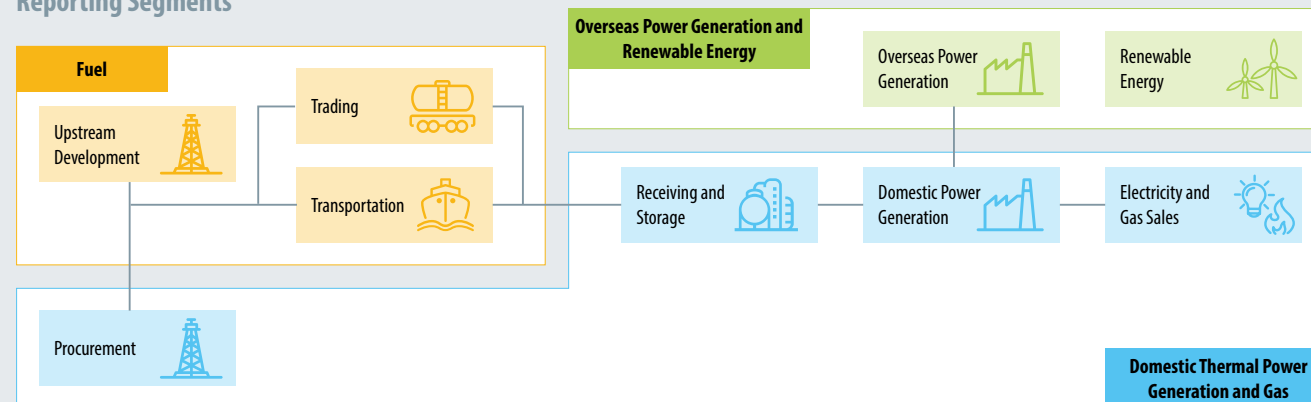
JERA's reporting segments are comprised of three business initiatives: "Fuel Business," "Overseas Power Generation and Renewable Energy Business," and "Domestic Thermal Power Generation and Gas Business."

Our fuel business leverages the market to optimize the production and transport of LNG—a primary fuel for thermal power generation—as well as JERA Group assets, including LNG upstream and fuel procurement contracts for our domestic thermal power generation and gas business.

Our overseas power generation and renewable energy business consists of power generation operations outside Japan, as well as renewable energy development projects both in Japan and overseas.

Finally, our domestic thermal power generation and gas business manages essential fuel procurement contracts, receives fuel based on those contracts, and performs operation and maintenance (O&M) and engineering functions, offering high-quality energy services while fulfilling our primary responsibility of ensuring a stable energy supply for the domestic market.

## Reporting Segments



## Featured

### Revolutionizing How Electricity is Sold: JERA Cross Goes Full-Scale in June 2024

We launched JERA Cross at full scale in June 2024 to help businesses drive their decarbonization efforts and to do our part in the rollout of 24/7 carbon-free electricity. We seek to provide one-stop decarbonization solutions—from management to execution—by utilizing our expertise in the energy field while leveraging digital technology to manage supply and demand and tap into sales functions of renewables and other energy sources. Going forward, JERA will create a green customer market and capture the demand driven by the shift toward energy presumption, thereby enhancing the business potential of LNG, renewable energy, and hydrogen/ammonia, the three strategic positioning businesses (SPs) outlined in the JERA Growth Strategy.

Now more than ever, we believe it is necessary to recognize again that the value of electricity varies depending on its energy source. Electricity's value is no longer limited to conventional measures such as kW (capacity to generate electricity) or kWh (electricity generated). Now we must also factor in environmental value, such as low CO<sub>2</sub> emissions, and the value of flexibility in accommodating short-term supply and demand fluctuations stemming from daily shifts in weather conditions, as well as long-term fluctuations associated with seasonal changes. We are determined to rise to this challenge by utilizing digital technology to segment the value of electricity and thereby arrive at an optimal combination of power sources to achieve decarbonization, a stable supply, and economic efficiency.



## Business Overview

## Fuel Upstream and Transportation

We handle approximately 36 million tons of LNG annually and actively participate in LNG upstream ventures in Australia and the United States. By securing competitive LNG and gaining access to valuable intelligence from major production projects, we contribute to the stable supply. In addition, in our LNG transportation business, we achieve flexible and competitive fuel transportation through the optimal configuration and efficient operation of our fleet.



## Fuel Trading

Centered on JERA Global Markets (JERA GM), headquartered in Singapore, we operate with a team of about 300 people, trading in the global LNG, coal, and shipping markets. A hallmark of our fuel trading is “asset-backed trading.” Leveraging one of the world’s largest fuel procurement scales, we integrate third-party transactions with fuel flows for our shareholders, optimally managing the volume and destinations of each contract and flexibly responding to market trends. We also harness financial methods to capitalize on the benefits from these physical transactions, ensuring revenue opportunities at a relatively low risk.

## Distinguishing Features

## Strengths

- The world’s largest competitive and flexible LNG procurement portfolio
- Extensive market intelligence
- Flexibility in LNG terminal and power plant operations and fuel receiving

## Issues

- Increased interest-bearing liabilities due to the surge in resource prices
- Tightening of policies and regulations in upstream business investment destination countries

## Opportunities

- Increased market volatility leading to optimization opportunities
- Increased transaction opportunities with new customers
- Acquisition of premium upstream development project information through leveraging overseas subsidiaries and the world’s largest buyer network

## Risks

- Negative impact of geopolitical risks on fuel procurement
- Reduced optimization opportunities due to domestic power supply and demand constraints
- Credit risk
- Profit and loss fluctuations in upstream development projects due to resource price volatility

## Utilizing Business Capital

Leveraging one of the world’s largest procurement scales, we have formed a competitive fuel portfolio that includes participation in upstream ventures, and we pursue optimal operations through the use of our own transportation fleet and “asset-backed trading.” These initiatives are made possible by our talented, diverse professionals with experience across our fuel business units, including our overseas subsidiaries.

## Key Business Capital

## ● Manufacturing Capital

- Upstream Investments: 6 projects
- LNG Cargo Fleet: 23 vessels



Wheatstone LNG Project, Australia  
Source: Chevron Australia

## ● Human Capital

- Diverse talent from in and outside of Japan

## ● Intellectual Capital

- Extensive market insights
- Trading expertise



## ● Social Capital

- A global trading network throughout the value chain
- A presence in the market based on one of the world’s largest LNG transaction volumes

Value Provided

● Stability and flexibility in fuel supply

### Issue Awareness in the Fuel Business

There is a growing risk that political sentiment in Australia and North America, where we participate in upstream LNG fuel ventures, could cause a tightening of regulations or the implementation of climate change policies that would constrict our business or incur additional costs. We will take all measures necessary to ensure compliance while working with the Japanese government and local partners to stabilize the business environment so that project operations can continue.

### Positioning within the Value Chain

We are working to optimize the entire value chain from fuel procurement to electricity sales to minimize the impact of increasing fluctuations in electricity demand brought on by uncertainties that include the expansion of renewable energy fostered by changes in policies and laws. Within the fuel business, we contribute to securing a stable supply by participating in upstream fuel projects to secure competitively priced LNG, by operating an optimized fleet of LNG cargo fleet to enable flexibility in LNG transportation, and by utilizing global fuel trading.

### Our Goal for 2035



**As a fuel supplier, we are committed to supporting the expansion of energy supply infrastructure using low-carbon thermal power and contributing to decarbonization in Japan, Asia, and the world.**

**Ryosuke Tsugaru**

Chief Low Carbon Fuel Officer (CLCFO) and Head of the LNG Division

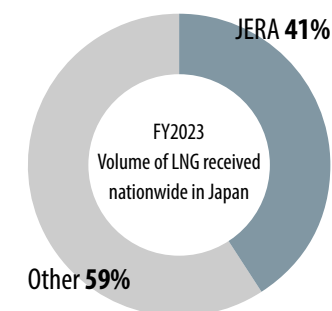
As part of JERA's growth strategy to realize the 2035 Vision, we have set a target of reducing CO<sub>2</sub> emissions from our domestic operations by more than 60% by 2035. Achieving this target will require the development of hydrogen & ammonia, and renewable energy as well as the continued development of LNG projects, with LNG serving as a transition fuel for its relatively low CO<sub>2</sub> emissions and high stability. To date, we have kept our fuel business stable and competitive by leveraging assets that include having one of the world's largest LNG procurement operations, upstream gas fields and LNG liquefaction terminals, and our own LNG cargo fleet. These areas are highly specialized, so we train and deploy personnel who are skilled in LNG procurement, business development, and management.

This platform also plays a crucial role in global decarbonization initiatives, particularly in Asia, where demand for LNG is expected to increase during the transition to a low-carbon economy. By providing competitive fuel solutions through our flagship fuel business, we support the global drive toward decarbonization based on implementing low-carbon thermal power and zero-emission thermal power in the future.

### Key Business Indicators and Revenue Generation

Our LNG transaction volume for FY2023 reached 36 million tons and has continued to remain high at approximately 35–40 million tons per year. We have increased our presence in the global market based on one of the largest LNG procurement portfolios in the world. Since FY2019, we have further strengthened fuel supply stability by optimizing procurement and resale flexibility through JERA GM. We also capitalize on profit opportunities in the market and ensure the smooth operation of our business, which is achieved by leveraging our market intelligence gained in the global market.

**LNG Transaction Volume**  
Total for FY2023  
**36 million tons**



**JERA will maintain flexibility across the entire value chain in response to changes in the business environment and contribute to the sustainable growth of society by ensuring a continuous and stable supply.**

**Kazunori Kasai**

Senior Managing Executive Officer and Chief Optimization Officer (COPTO)

A defining characteristic of our operations is the optimization business that connects the Pacific and Atlantic markets through JERA GM. By leveraging JERA GM's extensive network and trading expertise, we are able to achieve both stable supply and securing profits through transactions with a large number of customers. We are also moving forward with plans to leverage the knowledge gained from our current business processes and risk management in LNG and coal trading and extend it to other commodities on a global scale.

The business environment surrounding our company is undergoing significant changes, including fuel market volatility resulting from shifting international conditions and increasingly complex power operations due to the introduction of diverse power sources, including renewable energy. Nevertheless, we will help realize a society that can grow sustainably, continuing to provide a stable supply in our pursuit of optimization across the entire value chain and implementation of appropriate risk management.



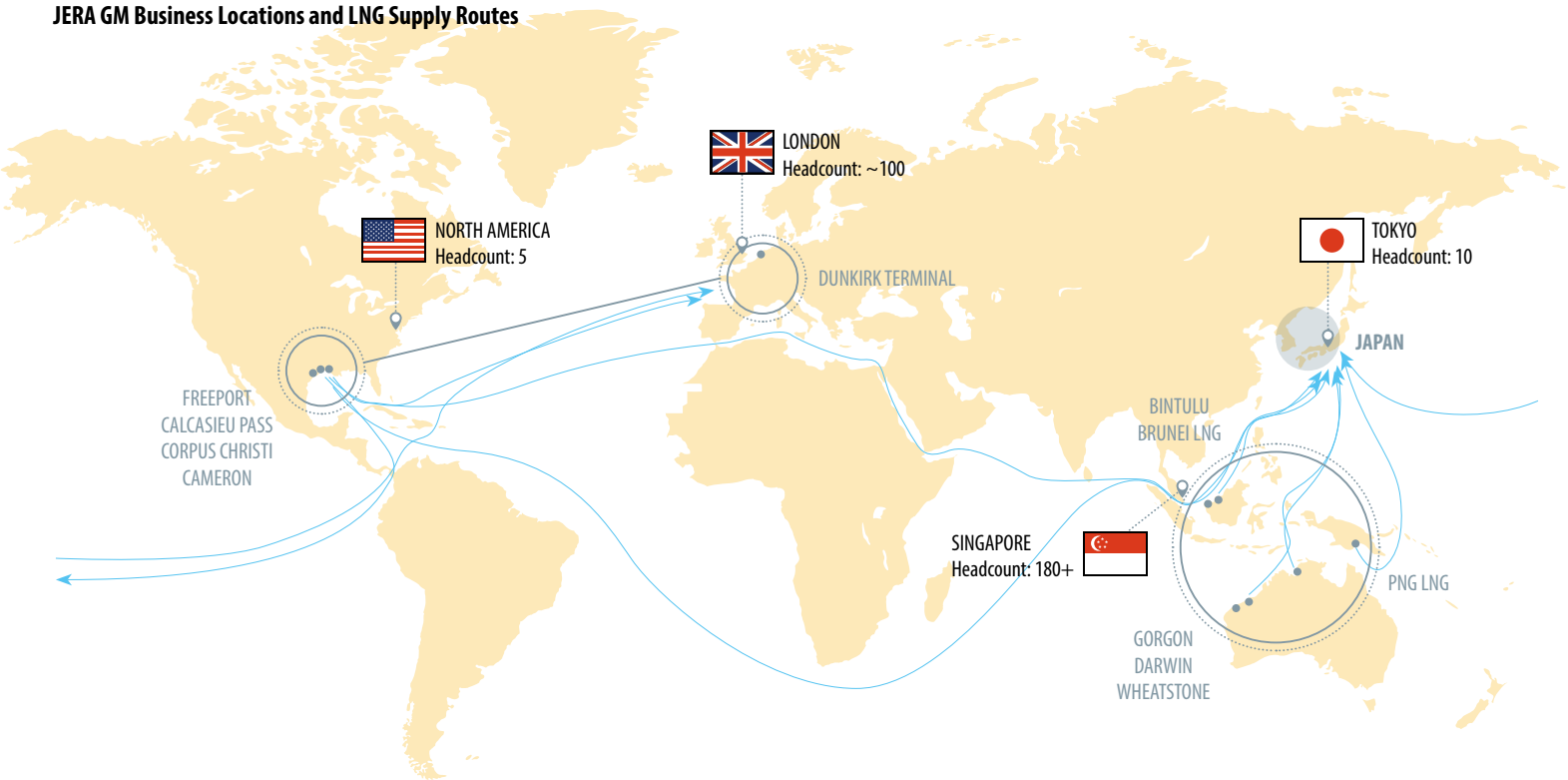
FOCUS Fuel Trading by JERA GM – Supporting Communities through Energy Security

JERA GM operates one of the largest energy portfolios in the world, which gives it an in-depth understanding into the dynamics of local, regional, and international energy markets. These insights enable it to help its customers increase their security of supply, optimize their portfolios, and improve the risk management of their assets. JERA GM manages all coal and short-term LNG procurement for JERA while maximizing value through optimization and trading.

JERA GM is the culmination of two different but complementary business activities—Japanese fuel procurement and European energy trading—creating a global trading business with seamlessly interconnected operations across four strategic locations, with full coverage of the physical and financial energy markets. In addition, by collaborating with JERA Power Trading Co., Inc.\*, which is engaged in electricity trading, we are contributing to the revitalization of the domestic electricity market and value creation through these efforts.

\*JERA Power Trading Co., Inc., is a power trader in the domestic thermal power generation and gas business.

JERA GM Business Locations and LNG Supply Routes



Strengths of JERA GM

1	Asset-Backed Trading Model	<ul style="list-style-type: none"><li>Leverages the flexibility inherent in fuel contracts</li><li>Optimizes approx.10% of global LNG volumes</li></ul>
2	Global Trading Expertise	<ul style="list-style-type: none"><li>Global base of operations</li><li>Experienced team of traders, analysts, and operators that deploy asset-backed trading strategies</li><li>Strong fundamental analysis capabilities</li></ul>
3	Supported by a Robust Foundation	<ul style="list-style-type: none"><li>Middle office and risk functions to monitor and support transactions</li><li>Advanced and developed IT platform to support a global trading business</li></ul>

VOICE



Pursuing energy security and value for shareholders through its asset-backed trading business model

Justin Rowland  
JERA Global Markets CEO

As a leading global energy trader, JERA GM leverages its extensive network, market intelligence and expertise in trading to closely support JERA’s energy procurement strategy. As we continue to build out additional fundamental strategies to reinforce flexibility in our portfolios, our focus remains to continue to capture and maximize value from the markets while staying true to our mission to provide energy security to our shareholders and the communities that we serve. The ever-evolving volatility in global energy markets requires us to be agile in our strategies and operations, collaborating closely with JERA to manage supply and demand dynamics.

# Overseas Power Generation and Renewable Energy Business

## Business Overview

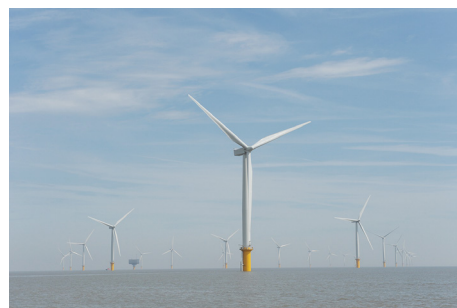
### Overseas Power Generation

We operate close to 30 overseas power generation projects across 10 countries, and we are continuing to expand our operations by leveraging our expertise in the development and operation of numerous large-scale power plants both domestically and abroad. Particularly in Asia, we are collaborating with platform-based companies that span multiple business domains, advancing not only power infrastructure development but also ensuring stable LNG supply and promoting decarbonization efforts. The business landscape surrounding energy is rapidly evolving due to policy shifts, market changes, advancements in renewable energy, and carbon-reduction technologies. Moreover, the needs of each country and region are unique. In light of these diverse landscapes, it is essential to move our business forward by leveraging the experience and trust we have built through past projects and to swiftly propose and implement optimal solutions to meet this changing environment. That is why we are collaborating with partners around the world, including platform-based companies, to deliver business solutions suitable for the needs of each region.



### Renewable Energy

We plan to consolidate our renewable energy business, both domestically and abroad, around our European base of operations. By partnering with local teams in each region, we aim to establish a “glocal” (global + local) structure. In offshore wind, where significant growth is anticipated, we are also intensifying our efforts in floating wind technology, a new frontier in the field. In addition to offshore wind power, we will actively pursue our solar power generation business in Japan and expand our solar and onshore wind power generation businesses in North America, India, and other countries. At the same time, we will also work on battery storage solutions in each country, which will contribute to stabilize the supply-demand balance.



## Distinguishing Features

### Strengths

- Leading the way in initiatives and insights into decarbonization technologies
- Development, construction, and operation of offshore wind power generation, which is rare among Japanese companies
- Selection of the latest and most optimal measures through collaboration with overseas development groups

### Issues

- Strengthening of specialists and organizational capabilities
- Enhancing the renewable energy supply chain in Japan and Asia
- Expanding the scale of development to gain further bargaining power

### Opportunities

- Increase in demand for electricity due to new demand for AI
- Global trend toward decarbonization
- Expansion and maturation of the renewable energy market
- Increased demand for storage batteries as a balancing force

### Risks

- Inflation and cost increases
- Insufficient coordination with the expansion of renewable energy
- Negative impact of geopolitical risks
- Uncertainty in development due to external factors such as changes in the bidding system, vulnerabilities in the grid at locations suitable for renewable energy, and more

## Utilizing Business Capital

Drawing on experience gained from our projects around the world as well as the global expertise of our diverse team of professionals, we come together to pool our knowledge and ideas. By collaborating with like-minded partners, we are committed to addressing global energy challenges.

### Key Business Capital

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>● <b>Manufacturing Capital</b> <ul style="list-style-type: none"> <li>• Number of Projects: ≈30 projects in more than 10 countries</li> </ul> </li> <li>● <b>Social Capital</b> <ul style="list-style-type: none"> <li>• Leveraging networks developed through projects</li> <li>• Collaborating with platform-based companies</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● <b>Human Capital</b> <ul style="list-style-type: none"> <li>• Achieving a diverse portfolio of talent</li> <li>• Reinforcing renewable energy talent through new hires and M&amp;A</li> </ul> </li> <li>● <b>Intellectual Capital</b> <ul style="list-style-type: none"> <li>• Pioneering insights into decarbonization technologies</li> <li>• Transferring insights and expertise of overseas renewable energy to the domestic market</li> </ul> </li> </ul> |
|--|---|

### Value Provided

- Contributing to decarbonization initiatives tailored to the needs of each country
- Aiding in decarbonization and ensuring stable electricity supply through the introduction and expansion of renewable energy

## Overseas Power Generation and Renewable Energy Business

### Issue Awareness

#### Overseas Power Generation

We are seeking a path toward building an optimal power supply portfolio to realize a decarbonized society amid diverse economic conditions, energy supply and demand, infrastructure development, and other factors in each country and region. To achieve this, we are working with governments and companies worldwide to develop roadmaps and other initiatives toward a decarbonized society.

#### Renewable Energy

We have been proactively working on the introduction of renewable energy. However, over the past two years, we have faced challenges such as rising interest rates and supply chain issues. The decision to invest in projects is carefully evaluated based on strict internal investment criteria, so we have launched a new company called JERA Nex to tackle projects requiring advanced technical skills and engage in projects at earlier stages.

### Positioning within the Value Chain

We are engaged in the development and operation of gas-fired power generation and renewable energy projects in Japan as well as across various regions worldwide, including Asia, the Middle East, Europe, and North America. In our gas-fired power generation development, we are actively involved in the procurement of fuel and supplying LNG in addition to infrastructure development in our goals to achieve a stable energy supply throughout the entire value chain. Furthermore, as we look toward decarbonizing thermal power, we are exploring the use of new fuels such as hydrogen & ammonia, as well as the application of carbon capture and storage (CCS). Alongside our aggressive development of renewable energy both domestically and abroad, we are working to provide optimal solutions tailored to each region.

### Key Business Indicators and Revenue Generation

To effectively conduct our business and consistently meet the expectations of our stakeholders, it is imperative that we continually commit to renewable energy development.

As of 2023, we have developed renewable energy projects totaling 3.4 GW. With the establishment of JERA Nex, a new company specializing in renewable energy, we aim to strengthen our development capabilities further and become a world-class renewable energy provider. Through this growth, we will achieve a robust global expansion of renewable energy projects.

Specifically, as we carefully assess the current market conditions and make disciplined investment decisions in high-quality projects, we have set a target for a renewable energy development capacity totaling 20 GW by 2035. The further expansion of renewable energy domestically and internationally with LNG, hydrogen, and ammonia is expected to create synergy with our other businesses.

**Renewable Energy  
Development Output**  
FY2023 results: **3.4 GW**  
**Renewable Energy  
Development Capacity**  
Goal for 2035: **20 GW**

### The Goal for 2035



**We are committed to providing optimal solutions to ensure stable energy supply, economic viability, and decarbonization with a focus on regions in Asia.**

**Steven Winn**

Chief Global Strategist (CGS)

In line with the global trend toward decarbonization, it is essential that we progressively advance toward energy transition. LNG, a low-carbon fuel, will be a crucial part of the clean energy supply, combining renewable energy and low-carbon thermal power. That is why we are actively promoting the adoption of LNG, particularly in Asia, while advancing conversion toward zero-emission thermal power by switching fuel to hydrogen & ammonia. To achieve our 2035 Vision, we are focusing on developing and securing talent with expertise across the entire value chain, from fuel procurement to power generation. In addition, we will continue to operate and establish projects rooted in various countries and regions through collaboration with our bases in Asia, the Middle East, and North America, including the platform-based companies in each country.



**We will contribute to global decarbonization by leveraging our expertise in renewable energy and creating synergy with other businesses.**

**Nathalie Oosterlinck**

CEO, JERA Nex Ltd.

The launch of JERA Nex marks a significant new step in our renewable energy business. By establishing a company that specializes in renewable energy, we aim to integrate existing projects and our experienced global team to scale up rapidly and achieve our development goal of 20 GW by 2035. As we reflect on this past year, we are pleased to report that we have completed several projects, including a 0.25 GW offshore wind farm in Germany; a 0.112 GW wind farm at Ishikari Bay New Port in Japan, and two critical projects: the offshore wind projects off the coast of Oga, Katagami, and Akita City in Akita Prefecture; and Norway's first offshore wind auction, "Sørlege Nordsjø II Phase 1." We have a strong track record in the field of renewable energy, and we plan to leverage the expertise of JERA Nex while collaborating with our other businesses to provide comprehensive solutions and contribute to global decarbonization.



## Overseas Power Generation and Renewable Energy Business

Scaling up our clean platform of renewables and low carbon thermal power, sparking sustainable development in Asia and around the world.

Through collaboration with platform-based companies in each country, we provide optimal solutions to help countries secure a stable energy supply and economic viability to contribute toward a decarbonized society.

Our overseas power generation businesses are based in Asia, the Middle East, and North America, promoting the operation and development of projects rooted in each region.

JERA Nex serves as the central hub of our renewable energy business, working in collaboration with other bases to develop, operate, and manage projects in each region.



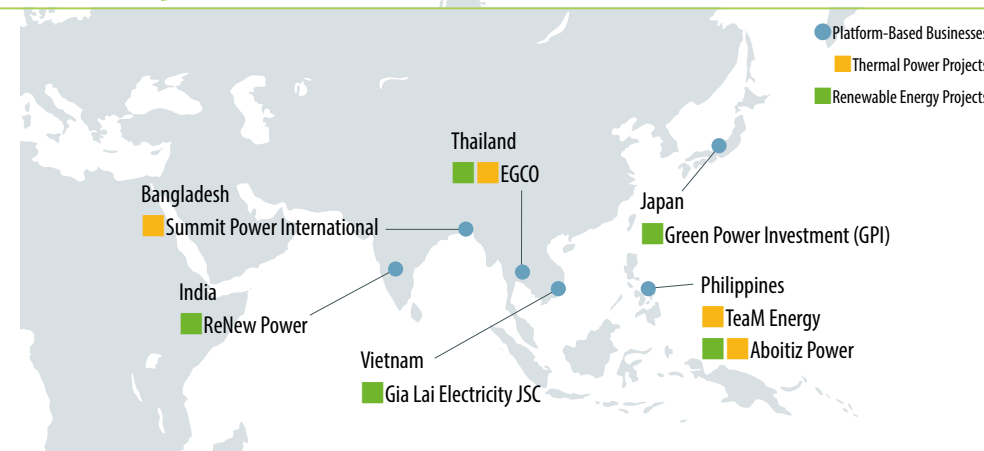
### FOCUS Toward Decarbonization in Asia



**Izumi Kai**

CEO, JERA Asia Pte. Ltd.  
Head of the Platform Business Division

We are advancing research and developing low-carbon emission projects to achieve decarbonization throughout Asia. For example, in response to a request from Indonesia's state-owned electricity company PLN Group, we are assisting in formulating a decarbonization roadmap for thermal power generation in the country. In Bangladesh, we are exploring the expansion of renewable energy and LNG power generation in collaboration with Summit Power International, one of our platform-based companies. Here, we aim to meet the growing electricity demand driven by economic growth while reducing CO<sub>2</sub> emissions. We will continue to contribute to a clean energy supply platform tailored to each country's diverse needs. This will include pursuing optimal solutions such as the potential conversion of thermal power generation fuel to clean ammonia or hydrogen.



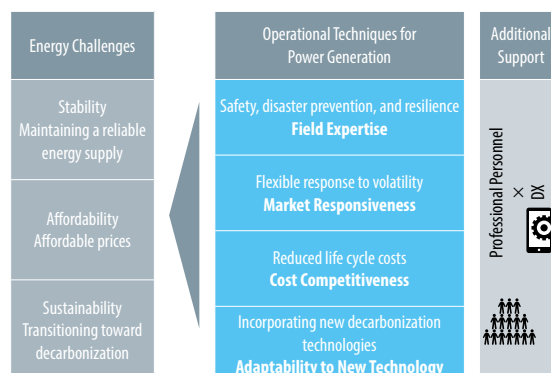
# Domestic Thermal Power Generation and Gas Business

## Business Overview

### Domestic Thermal Power Generation

The domestic thermal power generation business requires both flexibility to meet fluctuating demand and reliability to ensure a stable supply of electricity. We operate Japan's largest-scale power generation facilities and have honed our expertise and operational techniques over many years, enabling us to provide an economical and stable supply of electricity.

In response to the growing need for a decarbonized society, we are also promoting the transition to fuels that do not emit CO<sub>2</sub> when burned.



### Electricity and Gas Sales

JERA's supply capabilities are based on our excellent track record of thermal power generation and operational experience, with our large-scale fuel contracts acting as the linchpin in our efforts to sell electricity and gas to meet the diverse needs of our customers. Furthermore, JERA Power Trading has leveraged its understanding of the market and its trading skills to produce reliable results in electric power trading.

## Distinguishing Features

### Strengths

- Professional teams in each area of technical expertise
- Operational knowledge of thermal power generation cultivated over many years, paired with a wide range of facilities
- Acquisition of pioneering ammonia technologies
- Competitive and flexible fuel procurement portfolio
- Market trading expertise

### Issues

- Workforce shrinkage due to aging population and declining birth rate
- Large fluctuations in resource prices and demand for thermal power
- Efficient use of accumulated tools and techniques

### Opportunities

- Advances in AI and digital technology
- The growing need for a decarbonized society
- Improved liquidity in the domestic electricity market
- Diversifying customer needs in electricity and gas sales

### Risks

- Negative impact of geopolitical risks on fuel procurement
- Risk of natural disasters such as major earthquakes
- Operational disruptions due to issues at facilities

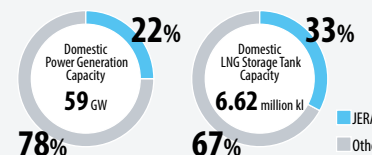
## Utilizing Business Capital

We benefit from a versatile workforce of professionals across a variety of technical fields, such as plant operation, facility engineering, and data analysis, allowing us to leverage our operational expertise across our wide array of thermal power generation facilities. This positions us to provide a distinctly superior level of service compared to our competitors, both at home and abroad.

### Key Business Capital

#### Manufacturing Capital

- Power plants in Japan: 26 stations\*<sup>1</sup>  
(Domestic power generation capacity: 59 GW)
- Number of LNG receiving terminals in Japan: 11\*<sup>2</sup>  
(LNG tank capacity: 6.62 million kl)



#### Social Capital

- Promoting engagement with communities around our power plants

#### Human Capital

- Approx. 3,000 professionals in specialized technical fields

#### Intellectual Capital

- Operational expertise in thermal power generation cultivated over many years of experience
- Knowledge of the electricity market
- Expertise in fuel procurement and power operations

#### Natural Capital

- Total energy consumption: 48 million kl (crude oil equivalent)
- LNG/LPG consumption: 23 million tons
- Coal consumption: 24 million tons\*<sup>3</sup>

\*1 Includes power plants under construction

\*2 Includes jointly operated LNG terminals

\*3 Totaled on a wet basis (arias received)

### Value Provided

- A stable energy supply
- Affordable prices
- Promoting the transition to a decarbonized society
- A stable supply of fuel

## Domestic Thermal Power Generation and Gas Business

### Issue Awareness in the Domestic Thermal Power Generation and Gas Business

#### A Shrinking Workforce due to an Aging Population and a Declining Birth Rate

Japan's declining birth rate and aging workforce make it essential to secure outstanding talent and train the next generation in preparation for the retirement of veteran engineers.

At JERA, we are securing engineers by strengthening our initiatives in mid-career hires and non-Japanese personnel recruitment. We are also promoting digital transformation to improve our operational tools and techniques for power generation, such as by formalizing tacit knowledge held by our veteran engineers in order to better pass it on to the next generation.

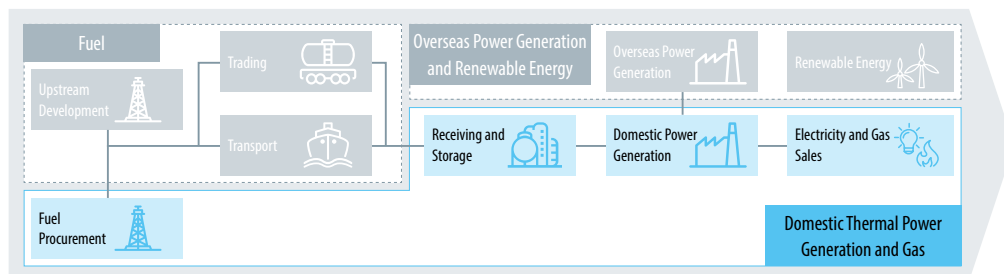
#### Large Fluctuations in Resource Prices and Demand for Thermal Power

Shifts in resource prices and fluctuations in demand for thermal power due to the growing prevalence of renewable energy sources represent challenges for us. Nonetheless, we flexibly adapt to these fluctuating resource prices by utilizing diverse fuel procurement sources and trading strategies. Furthermore, our enhanced flexibility in facility operations and other areas strengthens our market responsiveness, enabling us to address fluctuations in demand for domestic thermal power.

### Positioning within the Value Chain

As Japan's largest power company, we manage our fuel procurement and power generation portfolio for optimal effect, combining this with our technologies for operating and maintaining power generation facilities to maximize asset value and power sales opportunities, thereby ensuring an economical and stable supply.

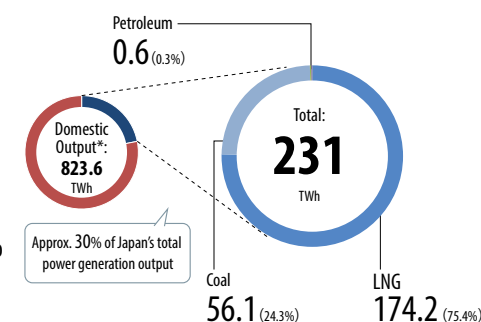
We utilize the electric power market to contribute to overall market growth and development and seek to provide solutions that meet new customer needs. Our initiatives reflect environmental values that include CO<sub>2</sub> emission-free energy and the value related to flexibility in accommodating both short-term fluctuations in supply and demand caused by changing weather over the course of the day and night, as well as long-term fluctuations associated with seasonal changes.



### Key Business Indicators and Revenue Generation

We boast some of the world's largest power generation facilities and supply approximately 30% of Japan's electricity.

We are replacing a total of 4.31 GW at our aging Yokosuka, Anegasaki, and Taketoyo facilities to maintain a stable supply. Beyond FY2024, we also plan to replace a total of 3.52 GW at our Goi and Chita stations. This is our ongoing commitment to maintaining a stable supply while conducting replacements to ensure profitability through improved efficiency.



\* Source: Agency for Natural Resources and Energy website:  
[https://www.enecho.meti.go.jp/statistics/electric\\_power/ep002/](https://www.enecho.meti.go.jp/statistics/electric_power/ep002/) (Japanese)

### Our Goal for 2035



We equip professionals with the skills needed to contribute to the realization of a stable energy supply and a decarbonized society.

#### Tetsuya Watabe

Corporate Vice President, Managing Executive Officer, Chief O&M Engineering Officer (COMEO)

JERA's Domestic Thermal Power and Gas Business supports Japan's access to a stable energy supply. From power generation to fuel procurement and trading, all aspects of our operations enable us to respond flexibly to fluctuations in resource prices and renewable energy output.

We serve an important role in supporting people's lives and encouraging regional development, and JERA's ranks are full of professionals with a strong sense of mission.

Japan's social structure will change as the birth rate declines and the population ages. We will address these changes by expanding on JERA-DPP® to realize new work innovations while further improving our existing on-site operational strengths both domestically and abroad.

At the Hekinan Thermal Power Station, we successfully completed the world's first demonstration of conversion of 20% ammonia fuel in a large-scale commercial power plant. This represents a major step toward making zero-emission thermal power generation a reality, and we will continue our unflagging efforts as we push ourselves to implement new technologies in society.



## FOCUS Digital Power Plant (DPP)

### JERA-DPP®

JERA continues to expand on JERA-DPP® as a solution for transforming the O&M of power plants. We fuse cutting-edge digital technology with the data and knowledge we have accumulated over our long history of operating some of the world's largest power generation facilities, enabling us to combine power plants, head offices, branch locations, and partners into an integrated and advanced digital power plant (DPP) solution.

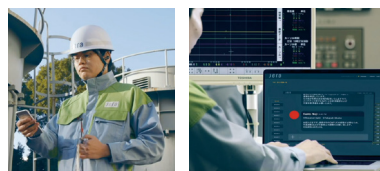
JERA-DPP® consists of "DPP Package," an application we developed in-house, and "G-DAC," our Global Data Analyzing Center that remotely provides advanced data analysis. Our goal is to introduce JERA-DPP® in all power plants by 2025 and encourage the spread of generative AI in our operations, leveraging this technology to achieve major work innovations.



### DPP Package

JERA's DPP Package aggregates data on power plant equipment and personnel in the cloud, visualizing and sharing this data and information in real time. One application, "Technologies of professionals," developed in-house at JERA, also digitally transforms the expertise of our O&M experts to optimize performance management and maintenance at power plants.

Utilizing these applications to visualize all work styles and approaches in our power plant operations contributes to increased profits by ensuring that our operations are data-driven.



Sharing on-site data and facility management information



Applying our expertise to enhance maintenance

### G-DAC

In July 2023, we established the Global Data Analyzing Center (G-DAC) as a remote, integrated division with the purpose of providing information and data analysis in real time, alongside cutting-edge O&M solutions, to domestic and international power generation facilities. G-DAC provides advanced analysis services 24 hours a day, not only for our own power generation facilities in Japan but also for those of our customers, including their overseas locations.



### VOICE



### Human Expertise Goes Digital

#### Hiroaki Kamei

O&M Engineering Advanced Technology Division  
Head of Digital Power Plant Promotion Group

Generative AI holds the potential to reshape the way we engineers work. Generative AI can study past issues at facilities and operational knowledge, synthesizing veteran engineers' work and ideas to provide younger, inexperienced engineers with immediate and practical solutions. In the face of declining birth rates and an aging population, we are committed to delivering solutions that preserve the excellence of the past for a brighter future.

# Initiatives at Thermal Power Plants in Japan

## Accelerating Decarbonization While Ensuring Stable Supply at Hekinan Thermal Power Station

Hekinan Thermal Power Station, located in the southern part of Hekinan City in Aichi Prefecture, is a coal-fired power plant.

Since the start of commercial operations for Unit 1 in October 1991, we have continued to add power generation equipment, and with the commencement of Unit 5 in 2002, Hekinan became the largest coal-fired power plant in Japan and one of the largest in the world, with a total output of 4.1 GW, ensuring a reliable supply of energy in Japan.

At the same time, Hekinan is also tackling the conversion to ammonia fuel, which does not emit CO<sub>2</sub> when burned. Retrofitting the plant for ammonia fuel is being managed efficiently without affecting the normal operations of the existing infrastructure.



## Demonstration Tests and Future Plans

On April 1, 2024, we began the world's first demonstration test of 20% fuel conversion\* to ammonia at Hekinan Thermal Power Station Unit 4, our large-scale commercial coal-fired power plant. By April 10, we had achieved a 20% conversion at the rated output of 1 GW.

Results of this demonstration testing were positive, confirming that the level of nitrogen oxides (NO<sub>x</sub>), which have a negative effect on the ecosystem, generated was no higher than before fuel ammonia conversion (than when firing coal alone); a 20% reduction in sulfur oxides (SO<sub>x</sub>); and that generation of N<sub>2</sub>O, which has a strong greenhouse effect, was below the threshold for detection. In addition, positive outcomes were achieved in both the combustion conditions and operational responsiveness of the boiler and ammonia fuel systems, marking significant progress toward commercialization.

Going forward, we will perform detailed data assessments and start construction aimed at commercial operations using large-volume fuel ammonia conversion, targeting the late 2020s for the commencement of commercial operations.

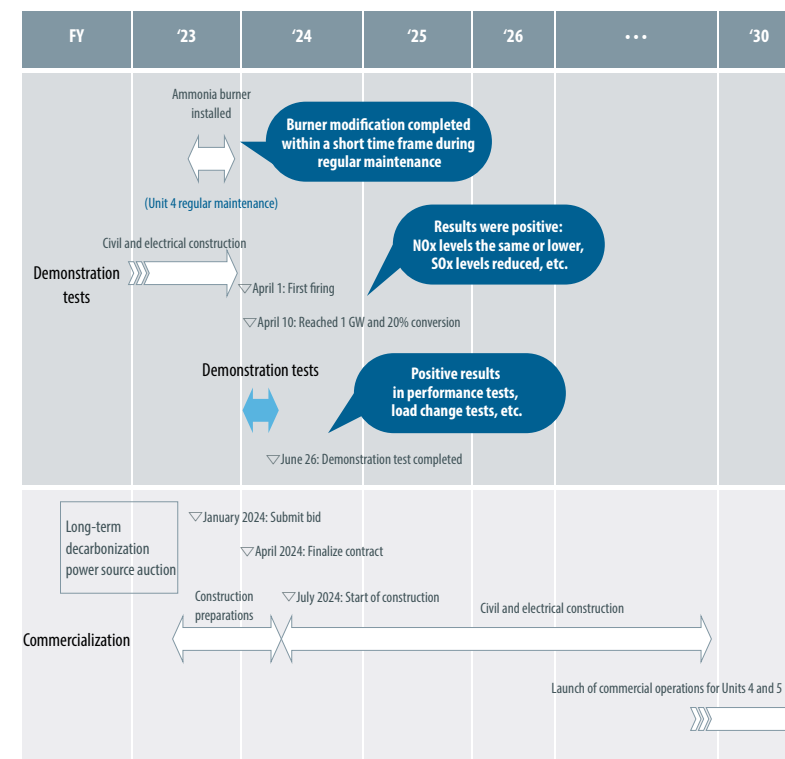
\*Implemented under a project subsidized by the New Energy and Industrial Development Organization (NEDO)

### Featured

### Accumulating Expertise in Fuel Ammonia

Prior to the demonstration testing of 20% ammonia conversion, we conducted verification tests of ammonia burners in an actual combustion environment at Hekinan Unit 5 in FY2021. We are now applying the insights gained from those tests in our 20% ammonia conversion demonstrations, helping us to accumulate expertise in equipment configuration and operation. In addition, because ammonia is classified as a hazardous substance, we have implemented a three-tiered safety manual covering prevention, early detection, and leakage containment. We also have a comprehensive system in place to ensure readiness in case of emergency, which includes working closely with local fire departments and municipalities. We plan to expand this expertise in fuel ammonia across Japan and overseas.

## Demonstration Facility Construction and Test Schedule



### VOICE



**Mitsutaka Ban**  
O&M Engineering Operation Division  
General Manager, Head of the Hekinan Thermal Power Station

## Message from the Head of the Hekinan Thermal Power Station

The large-scale demonstration of ammonia conversion testing has attracted global attention and is a source of great daily focus and motivation for both our power plant staff and partner companies. Above all, we are constantly mindful of ensuring the safety of local residents and everyone working on-site, as well as delivering a stable supply of electricity. Amid new initiatives and significant challenges, we are committed to remain calm, composed, and persistent in our efforts.

# Information Technology (IT) / Digital Transformation (DX)

## Transformation into a Data-Driven Global Company



Chief Information Officer (CIO) and  
Chief Information Security Officer (CISO)

**Celso Guiotoko**

### Positioning of Our Digital Strategy

At JERA, we aim to become Japan's first global energy company by promoting operational efficiency and improvement and by creating new business value through the use of data and cutting-edge technology in pursuit of a decarbonized society.

### Digital Strategy Policy

Our digital strategy is focused on directly contributing to business outcomes by providing a business platform that enables JERA's global business expansion strategy. This includes streamlining the business value chain, optimizing asset portfolios, digitizing power plants, and digitizing the workplace.

We must transform our business into a data-driven model to accelerate decision-making and become more customer-centric and competitive. To that end, we aim to provide a global platform that enables data-driven management across all business operations.

### Major Initiatives for FY2024

- (1) Enterprise transformation: Streamline business processes and data to achieve data-driven management. Utilize data analysis to optimize business processes and foster a culture of data-driven decision-making.
- (2) Globalization: Standardize ICT services globally and connect regions, countries, and locations in a federated format.
- (3) Strengthening our delivery structures: Enhance development and operation structures with partners and build a co-creation structure for business and ICT.

**Focus investments**  
**Strategic Positioning**  
(SP)

**Refine capabilities**  
**Operational Capabilities**  
(OC)



**Data-driven management platform**

**Investment decisions by  
management**

Swift decisions  
enabled by big data



**Employee work practices**

More high-value-added work  
by standardizing business processes

### Major Projects

#### Program4: Contributing to data streamlining and rapid decision-making

At JERA, we are working on introducing S/4HANA, the latest version of SAP, an integrated core business system that enables centralized management of a company's human, material, capital, and information resources. This project, called "Program4," aims to standardize data and business processes and promote information sharing based on S/4HANA, achieving data-driven corporate management based on real-time data.

Many of the global issues that require a solution are closely related to energy. Our company, too, faces challenges such as climate change and geopolitical risks. By building a data platform that aggregates real-time data, we aim to conduct predictive management to anticipate potential problems and enable agile, data-driven management decisions.

As stated in our Growth Strategy, this data platform is essential to driving decisions and achieving both Strategic Positioning and Operational Capabilities.

Once we implement S/4HANA, we can start accumulating data, which will aid us in measuring the JERA Group by the same metrics, both domestically and internationally. With the immediate availability of necessary information for management decisions, the management team can make swift decisions. By standardizing business processes, employees can reduce the time required for information gathering and focus on higher value-added tasks such as analysis and planning.

Through Program4, we will build a data platform that contributes to our Strategic Positioning and Operational Capabilities, thereby increasing corporate agility and enhancing corporate value.



# Digital Innovation (DI)

## Accelerating Decarbonization with AI and Cutting-Edge Technologies



Chief Digital Innovations Officer (CDIO)

Sami Ben Jamaa

### The Importance of Digital Innovation at JERA

At JERA, we must fulfill our social responsibilities in areas such as energy supply while enhancing our global competitiveness. To achieve this, it is essential that we fully leverage our expertise and know-how in power facilities using AI and digital technologies.

### Providing Digital Solutions

As Chief Digital Innovations Officer (CDIO), I am responsible for driving digital innovations through AI and other digital technologies. I am committed to contributing to both operational innovation within the JERA Group and the realization of our growth strategy. Leveraging successful digital transformation (DX) projects across our domestic power generation facilities, we have provided digital solutions to our group companies outside of Japan. As we move forward, we aim to expand our solutions, including generative AI, to enhance our business and thrive in the global energy market. We also plan to explore advanced technologies such as CO<sub>2</sub> emission tracking and virtual power plants (VPP) to support the creation of a decarbonized society.

Case Study: Deployment of digital power plants (DPP) and anomaly detection systems at domestic power plants.

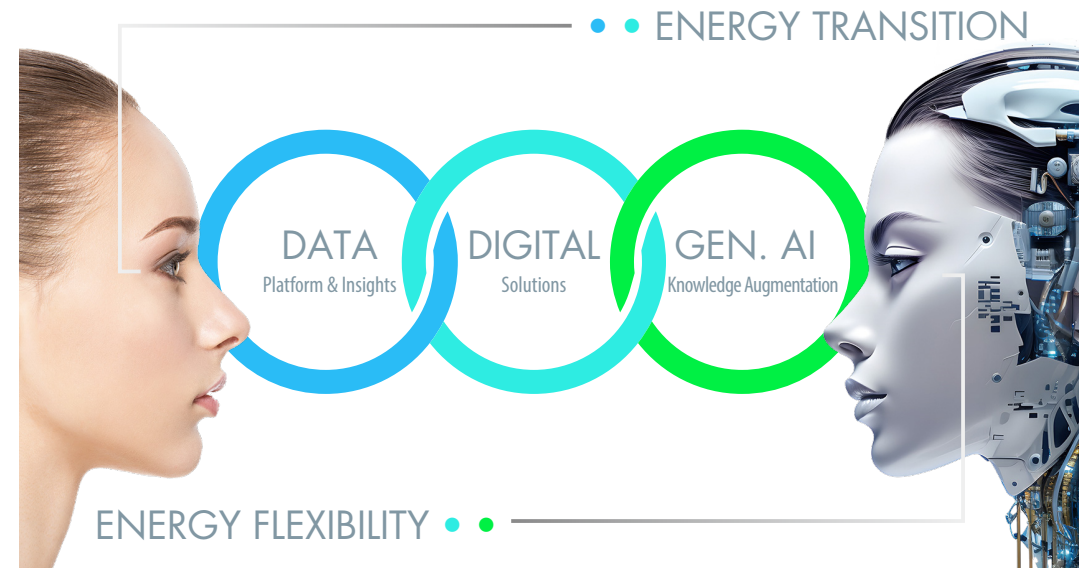
### Strengthening the Global Digital Ecosystem

Achieving these goals requires talent capable of bridging business with the digital side and enhancing our digital ecosystem. We are committed to actively recruiting and developing DX talent within our group, as well as deepening our collaboration with global partners through programs such as Free Electrons\*. In addition, we are considering establishing a digital subsidiary to foster a culture of innovation and promote the rapid and flexible development of advanced technologies to provide cutting-edge digital solutions.

\* Free Electrons: An open innovation program that connects start-ups with world-leading energy utilities

### Strategic Innovation

Utilizing cutting-edge digital technologies to enhance energy flexibility and accelerate the energy transition



### Realization of Our Growth Strategy

#### Enhancing Operational Capabilities

AI and digital technologies are central to the operational capabilities emphasized in our growth strategy. By integrating advanced technologies into our business, we are committed to enhancing these capabilities and contributing to our growth strategy through the digital development of our group's human resources.



## SECTION

# The Infrastructure Behind Our Strategies

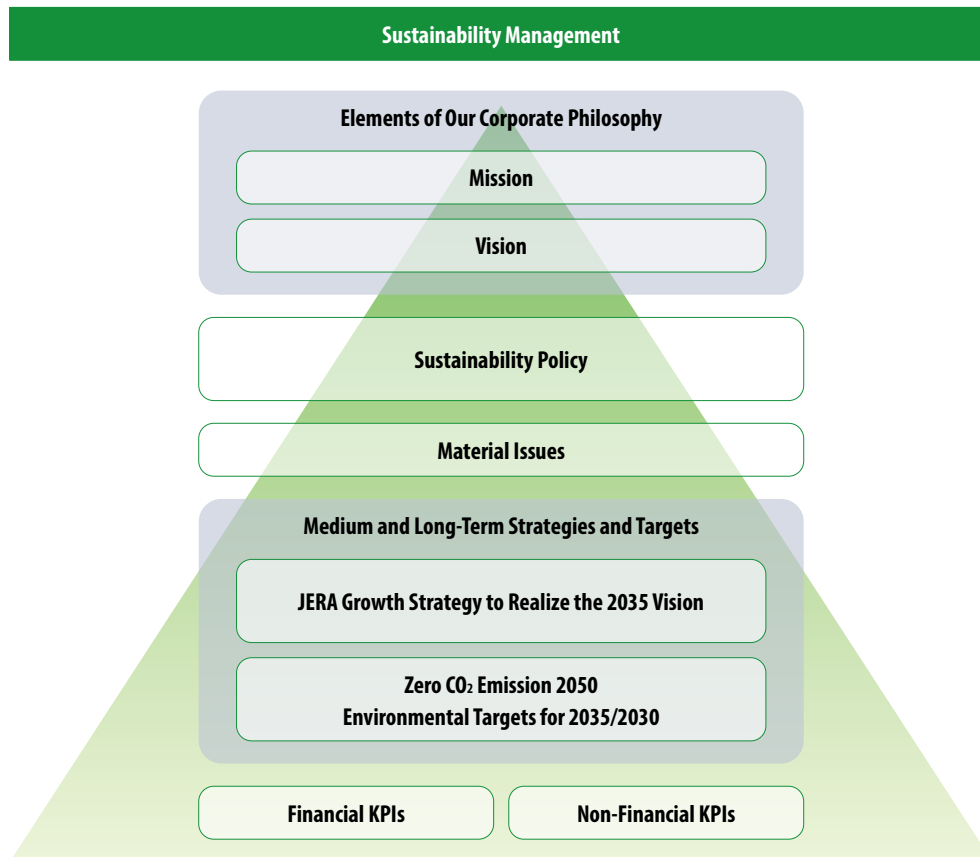
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# Sustainability Management

## Fundamental Approach

At JERA, we recognize the need for a framework to achieve our mission and vision and guide the company toward long-term sustainable growth. As such, we have established a comprehensive sustainability management system, including the formulation of the JERA Group Sustainability Policy, revisions to our material issues, and the expansion of non-financial KPIs. Through our business, we aim to enhance economic value while increasing environmental and social value through sustainability management, reducing capital costs, and maximizing corporate value.



## JERA Group Sustainability Policy

At JERA, we are committed to leading the way in creating a more sustainable society as an energy provider and a responsible corporate citizen. This policy articulates our company's aspiration, strategically pinpointing and prioritizing crucial material issues essential to promoting sustainable management.

- I. As an energy provider, we are committed to delivering the essential energy the world needs, guided by three interlinked principles.
  1. Sustainability: Reducing our environmental impact while coexisting with the planet and society.
  2. Affordability: Providing energy at affordable prices tailored to the needs of each region.
  3. Stability: Ensuring a reliable and continuous energy supply.
- II. Guided by the principle of "Think globally, Act locally," we engage directly with the distinct challenges facing each country and region, particularly in Asia, to offer optimal solutions and address global-scale issues.
- III. As a trusted company among all stakeholders, we conduct our business transparently and fairly to continue being a company that complies with regulations and prioritizes safety.
- IV. We respect diversity and we cultivate a flat and innovative corporate culture to stimulate creativity in each employee. In turn, we continue to enhance our corporate value in the global capital markets.

In 2020, we identified and disclosed 22 material issues, and in 2022, we refined this list to nine, making necessary revisions. We continue to review these issues regularly in response to changes in both internal and external environments. Recently, we have again revised our material issues in line with the JERA Growth Strategy to Realize the 2035 Vision, announced in May 2024, and the newly established JERA Group Sustainability Policy.



For more information on how we identify material issues, please visit our website:

[https://www.jera.co.jp/en/sustainability/](https://www.jera.co.jp/en/sustainability/Home) Home > Sustainability > Material Issues

Material Issues	Why (Our Rationale)	What (Our Aspiration for 2035)
Establish a stable supply platform and system for supply at affordable prices	<ul style="list-style-type: none"> <li>To realize the formation of power supply facilities that provide both affordable prices and a stable supply of electricity, as outlined in Japan's basic energy policy, S+3E perspective (S+3E means first and foremost ensuring stable supply and realizing low-cost energy supply by enhancing efficiency on the premise of safety while making maximum efforts to pursue environment suitability)</li> </ul>	<ul style="list-style-type: none"> <li>Realize energy solutions tailored to the varying environments of different countries and regions</li> </ul>
Create customer value by offering cutting-edge solutions	<ul style="list-style-type: none"> <li>To deliver cutting-edge solutions by developing roadmaps that account for the unique circumstances of each country and region, ensuring the most effective solutions for their specific challenges</li> </ul>	<ul style="list-style-type: none"> <li>Provide solutions that align with the optimal roadmaps for each country</li> </ul>
Contribute to decarbonization and environmental protection by mutual complementation of renewable energy and zero-emission thermal power	<ul style="list-style-type: none"> <li>Because achieving our zero CO<sub>2</sub> emissions while maintaining a stable supply and compensating for the intermittency of renewable energy requires the complementary integration of zero-emission thermal power</li> </ul>	<ul style="list-style-type: none"> <li>Achieve the 2035 vision of “providing a clean energy platform of renewable energy and low greenhouse gas thermal power” and contribute to environmental conservation (including reducing NOx/SOx emissions and protecting the entire ecosystem)</li> </ul>
Innovate a business model through digital transformation	<ul style="list-style-type: none"> <li>To provide new added value through the optimal use of renewable energy and zero-emission thermal power, leveraging digital technologies</li> </ul>	<ul style="list-style-type: none"> <li>Deliver stable, economical, and clean electricity to our customers</li> </ul>
Coexist and thrive alongside local communities in Japan and abroad	<ul style="list-style-type: none"> <li>Because earning the trust of local communities is essential for smooth business operations</li> </ul>	<ul style="list-style-type: none"> <li>Contribute to the prosperity of local communities by helping solve local issues as a member of those communities</li> </ul>
Establish strong governance	<ul style="list-style-type: none"> <li>To gain credibility in the international energy market</li> </ul>	<ul style="list-style-type: none"> <li>Develop a resilient and sound management and financial structure with an autonomous and independent corporate culture and ensure a governance framework that facilitates fair and swift decision-making</li> </ul>
Implement compliance rigorously	<ul style="list-style-type: none"> <li>To establish the infrastructure needed to realize the group's corporate philosophy</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that every individual acts fairly and impartially in line with our Compliance Policy</li> </ul>
Ensure the safety of all people and local communities involved in our business	<ul style="list-style-type: none"> <li>Because ensuring the safety of every individual involved in our business, as well as the safety of the local community, is fundamental to securing business continuity</li> </ul>	<ul style="list-style-type: none"> <li>Properly manage the safety of everyone involved in our business and foster a culture that prioritizes safety above all else</li> <li>Ensure that disaster response efforts are effectively coordinated with local communities to minimize any negative impact on them, even in the event of an accident</li> </ul>
Create innovation through diverse talent	<ul style="list-style-type: none"> <li>Because fostering innovation is essential to continue providing cutting-edge solutions to the world</li> </ul>	<ul style="list-style-type: none"> <li>Create an environment where innovation naturally arises from embracing diversity, encouraging individuality, and fostering a flat and innovative culture</li> </ul>
Achieve happiness for employees and their families	<ul style="list-style-type: none"> <li>Because we must attract talent who can shape a unique identity for JERA that sets it apart from every other energy company in the world</li> </ul>	<ul style="list-style-type: none"> <li>Create an environment where the happiness of employees and their families is made possible by JERA</li> </ul>



# Material Issues and Non-Financial KPIs

## Linkage between Our Sustainability Policy, Material Issues, and Non-Financial KPIs

Sustainability Policy	Material Issues	Non-Financial KPIs (Specific Goals for Realizing Our Aspiration)	Major Initiatives
I. Simultaneously achieve Sustainability, Affordability, and Stability II. Embody “Think globally, Act locally”	Establish a stable supply infrastructure and system for supply at affordable prices	<ul style="list-style-type: none"> <li>• 20% reduction in CO<sub>2</sub> emission intensity by 2030</li> <li>• More than 60% reduction in CO<sub>2</sub> emissions by 2035</li> <li>• Maintaining the world’s highest levels for controlling NOx and SOx emissions</li> <li>• Hydrogen &amp; ammonia transaction volume of 7 MT by 2035</li> <li>• Renewable energy development capacity of 20 GW by 2035</li> </ul>	<ul style="list-style-type: none"> <li>• Improving the reliability of power generation facilities and ensuring flexible supply-demand response through the replacement and proper maintenance of thermal power generation equipment</li> <li>• Promoting the transition to digital power plants to visualize and optimize operation and maintenance (O&amp;M)</li> <li>• Completing a demonstration test for a 20% conversion to fuel ammonia at Hekinan Thermal Power Station</li> <li>• Establishing hydrogen &amp; ammonia supply chains</li> <li>• Engaging in corporate venture capital activities through the establishment of JERA Ventures</li> <li>• Consolidating renewable energy expertise through the launch of JERA Nex</li> <li>• Pursuing carbon capture and storage (CCS) know-how and project opportunities</li> </ul>
	Create customer value by offering cutting-edge solutions		
	Contribute to decarbonization and environmental protection by mutual complementation of renewable energy and zero-emission thermal power		
	Innovate the business model through digital transformation	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> tracking throughout the value chain</li> <li>• Creation of mechanism that can deliver 24/7 carbon-free electricity to customers 24 hours a day</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting and organizing data from major power plants, including those overseas, building a platform for maximizing data utilization and promoting data literacy</li> <li>• Investigating advanced ICT technologies for digital applications and exploring collaborations with leading technology companies</li> <li>• Establishing JERA Cross to promote corporate decarbonization efforts and doing our part in the rollout of 24/7 carbon-free electricity</li> </ul>
	Coexist and thrive alongside local communities in Japan and abroad	<ul style="list-style-type: none"> <li>• Identification of regional issues and collaboration with regions to resolve issues</li> <li>• Global collaboration on and development of local initiatives to solve regional issues</li> </ul>	<ul style="list-style-type: none"> <li>• Taking action to coexist with the environment, educate the next generation, and resolve issues in local communities based on our Social Contribution Activity Policy</li> <li>• Building good relationships with stakeholders through activities that coexist and thrive alongside local communities</li> <li>• Practicing global corporate social responsibility (CSR) at overseas sites tailored to the needs of local communities</li> </ul>
III. We will conduct business in a fair and honest manner with thorough compliance, operating the business in a manner that makes safety the top priority	Establish strong governance	<ul style="list-style-type: none"> <li>• Maintain a third or more independent outside directors</li> <li>• Publish and review a directors’ skills matrix</li> </ul>	<ul style="list-style-type: none"> <li>• Improving board effectiveness</li> <li>• Promoting diversity on the Board of Directors by increasing the ratio of outside directors</li> </ul>
	Implement compliance rigorously	<ul style="list-style-type: none"> <li>• No compliance violations<sup>*1</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Instilling and putting into practice a compliance culture while promoting the JERA Group compliance system</li> <li>• Establishing the JERA Transaction Monitoring Committee</li> </ul>
	Ensure the safety of all people and local communities involved in our business	<ul style="list-style-type: none"> <li>• Maintain a record of zero disaster-related fatalities</li> <li>• Improve the effectiveness of disaster prevention efforts through training in partnership with local communities<sup>*2</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring continuous top-level leadership and establishing a system to promote safety</li> <li>• Strengthening disaster preparedness through business continuity plan (BCP) training</li> </ul>
IV. Respect diversity and create a flat and innovative corporate culture	Create innovation through diverse talent	<ul style="list-style-type: none"> <li>• Step up exchanges of personnel between locations</li> <li>• Ensure diversity based on employee demographic ratios</li> <li>• Foster a flat culture where everyone can realize their full potential</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting personnel exchange with sites overseas</li> <li>• Monitoring globally across the group to ensure that no attributes are excluded and that diversity is guaranteed</li> <li>• Introducing new indicators to measure the extent of cultural integration and monitoring this integration across the global group</li> </ul>
	Achieve happiness for employees and their families	<ul style="list-style-type: none"> <li>• Rigorously ensure and enhance job-based talent management</li> <li>• Promote various measures related to mental and physical health</li> <li>• Promote measures that enable people to experience the happiness of growth</li> </ul>	<ul style="list-style-type: none"> <li>• Developing and expanding systems to attract diverse talent</li> <li>• Strengthening frameworks that promote autonomous career development</li> <li>• Developing a competitive compensation infrastructure, including a job-based personnel framework</li> <li>• Promoting global mobility to achieve a borderless approach to talent acquisition</li> </ul>

<sup>\*1</sup> Noncompliance that constitutes misconduct equivalent to a crisis or emergency <sup>\*2</sup> Covers domestic thermal power plants

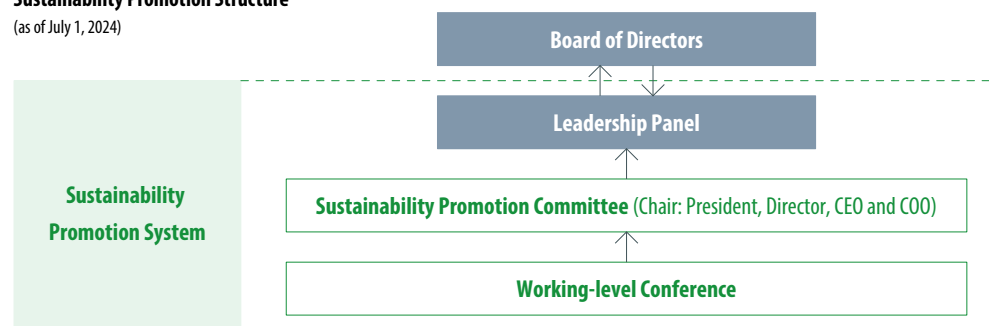
## Sustainability Promotion System

Under the supervision of the Board of Directors, we have established a system where the Sustainability Promotion Committee, chaired by the President, Director, CEO and COO, work together to discuss internal and external issues regarding sustainability and submit important themes to the Leadership Panel.

Starting in FY2023, we established a Working-level Conference under the Sustainability Promotion Committee, centered on a dedicated sustainability organization, bringing together divisions responsible for environmental, social, and governance (ESG) to advance sustainability from a more company-wide and cross-divisional perspective.

### Sustainability Promotion Structure

(as of July 1, 2024)



## Promotion of Sustainability Management



**Tatsuya Tsunoda**

Managing Executive  
Officer (Officer to CFO)

In FY2023, we held multiple discussions\* at both the Sustainability Promotion Committee and the Working-level Conference on the direction of our sustainability management. Through these discussions, which covered the formulation of our sustainability policy, revisions to our material issues, and the expansion of non-financial KPIs, our stakeholders reached a consensus on an aspiration for the company. We have established a comprehensive sustainability management system incorporating these elements, including developing the JERA Group Sustainability Policy. We will continue to implement a rigorous Plan-Do-Check-Act (PDCA) cycle of sustainability management by closely monitoring progress on non-financial KPIs and further enhancing stakeholder engagement. Within this newly outlined sustainability management system, we are committed to sustainably and steadily working toward achieving our mission and vision while maximizing corporate value.

\*Sustainability Promotion Committee meetings and 10 Working-level Conference meetings (from August 2023 to July 2024)

## Initiatives for Internal Sustainability Integration

At JERA, we believe that every employee plays a vital role in advancing sustainability management. As such, we prioritize engaging in dialogue with employees to explore what sustainability issues mean to them personally. In FY2023, employees from our Sustainability Promotion Unit, Global Investors Relations Group, with support from related divisions, conducted online sustainability briefings (power plant tours) targeting all staff at domestic power plants. Workshops were also held at our power plants in Japan to encourage employees to personally reflect on how their daily tasks relate to our sustainability initiatives. As a result, employees reported gaining a deeper understanding of sustainability management.

We also launched an internal portal to inform employees about the expectations of external stakeholders and to provide updates on company-wide sustainability activities. By regularly providing updates like these, we aim to promote a bottom-up approach to sustainability management that starts with each employee.



Power Plant Tour Workshops



## Meeting Global Levels in Sustainability Disclosure

We are committed to continuously improving our ESG and sustainability disclosures by considering the needs of investors and referring to the standards set by global ESG rating agencies. We also closely monitor developments in both domestic and international sustainability disclosure standards and regulations, such as those from the International Sustainability Standards Board (ISSB) and the Corporate Sustainability Reporting Directive (CSRD). Ultimately, we aim to achieve sustainability reporting that aligns with the highest global levels over the medium to long term.

# Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

## Fundamental Approach

As a global company committed to solving energy issues in Japan and around the world, we consider measures to combat climate change and conserve natural capital and biodiversity to be priority issues and have identified the relevant material issues. We have endorsed the Task Force on Climate-related Financial Disclosures (TCFD) recommendations since 2021, when we also joined the TCFD Consortium. In addition, in 2024, we participated in the TNFD Forum, which supports discussions and other activities of the Taskforce on Nature-related Financial Disclosures (TNFD).

With the aim of sustainably enhancing our corporate value, we have identified four elements—governance, risk management, strategy, and metrics and targets—in line with the TCFD and TNFD Recommendations that summarize our systems pertaining to climate change, natural capital, and biodiversity and the initiatives typified by the Three Approaches of JERA Zero CO<sub>2</sub> Emissions 2050.

We will continue to disclose information in line with the TCFD and TNFD Recommendations and further enhance communication with investors and other stakeholders.

## Governance

Decisions about important policies, new and updated targets, and other matters pertaining to measures to combat climate change and conserve natural capital and biodiversity are made by the Board of Directors or the Leadership Panel based on our corporate governance system. We have also established a Sustainability Promotion Committee for the purpose of enhancing sustainability management, this cross-divisional committee is chaired by the President, Director, CEO and COO and reports directly to the Board of Directors. It will examine measures to combat climate change, conserve natural capital and biodiversity, and address other environment-related issues.

Directors hold active discussions with outside experts and specialist organizations to keep pace with the latest information and findings, which they share with the Leadership Panel and other internal groups. We also host seminars regarding sustainability for our employees in addition to providing opportunities for them to have discussions with the directors. We are proactively working to further promote our sustainability activities by continuing to expand our directors' and employees' understanding of information and trends in climate change, natural capital, biodiversity, and other aspects of sustainability management.

Corporate Governance ➡ P. 76

Sustainability Promotion System ➡ P. 47

## Risk Management

We have established a risk management system headed by the President, Director, CEO and COO to understand and mitigate risks associated with corporate activities. The system conducts integrated risk management, categorized into operational, market, and credit risks. We identify risks pertaining to climate change, natural capital, and biodiversity in recognition of their impact on our business activities. Risks to be managed by directors are identified as "significant risks to be managed by management." The Risk Management Committee (chaired by the President, Director, CEO and COO) monitors and reviews the management status and plans for responding to these risks and then reports them to the Board of Directors at scheduled intervals or as needed.

Risk Management ➡ P. 84

## Strategies

To identify risks and opportunities pertaining to climate change, natural capital, and biodiversity and prove our resilience, we conduct analysis with reference to the TCFD and TNFD frameworks.

Regarding climate change, we continue to conduct scenario analysis as in FY2023, identifying major risks and opportunities for our business and evaluating the financial impact to inform subsequent examination and implementation of appropriate measures.

Regarding natural capital and biodiversity, we conducted an analysis based on the LEAP approach\* for the first time in FY2024. We located our interface with nature on a site-by-site basis, analyzed the dependencies and impacts of our business on nature and key risks and opportunities, and then examined measures and defined indicators.

\*LEAP approach: Acronym for Locate, Evaluate, Assess, and Prepare, the TNFD's recommended steps for disclosure.



# Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

## Strategies for Climate Change

### Scenario Configuration

The following two scenarios have been established to analyze the risks and opportunities related to climate change across the entire value chain of our business.

	1.5°C Scenario References: IEA World Energy Outlook 2023 NZE, the Japanese Government's Sixth Strategic Energy Plan, IPCC Sixth Assessment Report SSP1-1.9/SSP1-2.6	4°C Scenario References: IEA World Energy Outlook 2023 STEPS, IPCC Sixth Assessment Report SSP3-7.0/SSP5-8.5	Time Series Variations in Relevant Parameters
Policy/Regulatory Changes	<ul style="list-style-type: none"> <li>Ambitious energy policies are under way in each country to curb a global rise in average temperatures.</li> <li>Carbon pricing has been introduced over a vast range of regions, and prices are rising rapidly in both developed and developing economies that have declared a commitment to net-zero emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Existing energy policies will be maintained in each country, and no ambitious policies will be introduced.</li> <li>Carbon pricing will be implemented only in regions that have already introduced or have plans to introduce this method.</li> </ul>	
Global Changes in Energy Supply and Demand	<ul style="list-style-type: none"> <li>Final energy consumption will decrease in the future due to ongoing energy conservation efforts and improvements in energy consumption efficiency.</li> <li>Conversely, significant progress in electrification rates will result in a steady increase in electricity demand.</li> </ul>	<ul style="list-style-type: none"> <li>Final energy consumption will continue to increase into the future, following existing trends.</li> <li>Electricity demand will increase accordingly, but electrification rates will not show significant growth and will remain below the levels of the 1.5°C scenario.</li> </ul>	
	<ul style="list-style-type: none"> <li>Renewable energy introduction will progress rapidly, replacing fossil fuels as the world's primary energy source by the mid-2030s.</li> <li>As a result, demand for fossil fuels like natural gas will decline rapidly.</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy will be introduced at a moderate pace, with fossil fuels continuing to function as the world's primary energy source in the long term.</li> <li>Demand for fossil fuels, including natural gas, will largely level off.</li> </ul>	
	<ul style="list-style-type: none"> <li>Technological innovations to curb greenhouse gas emissions will lead to a significant increase in the production of new low-carbon fuels such as hydrogen &amp; ammonia.</li> </ul>	<ul style="list-style-type: none"> <li>Development and introduction of new low-carbon fuels such as hydrogen &amp; ammonia will be limited.</li> </ul>	
Global Climate Changes*	<ul style="list-style-type: none"> <li>The Global average temperature increase will stabilize at around 1.5°C.</li> <li>The frequency and intensity of extreme weather events such as heavy rainfall, high temperatures, and droughts will marginally increase worldwide.</li> <li>The average sea level worldwide will rise by 0.4–0.7 meters by the end of the century, but the long-term rise will be more limited compared to the 4°C scenario.</li> </ul>	<ul style="list-style-type: none"> <li>The global average temperature will rise by around 4°C by the end of the century.</li> <li>The frequency and intensity of extreme weather events such as heavy rainfall, high temperatures, and droughts will increase significantly worldwide.</li> <li>The average sea level worldwide will rise 0.8–1.2 meters by the end of the century. Given the uncertainty of ice sheet melting processes, water levels could reasonably rise at a significantly faster pace than in existing trends.</li> </ul>	

\*Numerical values in the scenario descriptions and graphs represent the deviation from values expected prior to the Industrial Revolution. "Extreme" refers to weather events with a probability of occurring once in 10 years.

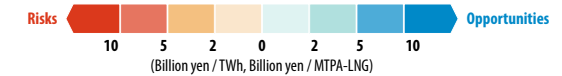


## Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

### Assessment of Impact on Our Business

We listed climate change–related risks and opportunities for our business based on the scenarios on the previous page. We conducted a sensitivity analysis of the potential financial impact on JERA regarding the major risk and opportunity factors identified. The legend on the right side is classified into four colors that indicate the financial impact per unit of activity over the short-term (through 2025), medium-term (2026–2035), and long-term (2036–2050) periods for each risk and opportunity.

We will work to reduce the risks and seize the opportunities through JERA Zero CO<sub>2</sub> Emissions 2050 as well as other efforts and measures.



Risk/Opportunity Categories: Projected Changes in Business Circumstances	Impact on JERA	Analysis of Potential Financial Impact Sensitivity on JERA						JERA's Measures and Examples of Related Initiatives
		Method of Assessment	Corresponding Business	Unit	2025	2035	2050	
▼1.5°C Scenario								
Policy and Regulatory: Stricter Regulation of Fossil Fuel Use	Increased operating costs due to carbon pricing	Sensitivity of carbon cost increase per unit of thermal generation	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Reducing Emissions by Promoting JERA Zero CO<sub>2</sub> Emissions 2050</b> <ul style="list-style-type: none"><li>JERA Zero CO<sub>2</sub> Emissions 2050: ➡ P. 26</li><li>JERA Zero CO<sub>2</sub> Emissions 2050 Roadmap for Its Business in Japan (Blueprint for Achieving Zero Emissions): ➡ P. 27-28</li><li>Emission Indicators and Targets: ➡ P. 27</li></ul>		
		Sensitivity of carbon cost increase per unit of LNG production	Fuel Upstream	Billions yen/ MTPA-LNG	<div><div></div><div></div><div></div></div>	<b>Recommendations and Involvement in Energy and Global Warming Policy</b> <ul style="list-style-type: none"><li>Participation in the GX League</li></ul>		
	More efficient energy consumption through stricter energy conservation regulations	Sensitivity to decreases in operating costs per point of improvement of thermal power generation efficiency	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>More Efficient Energy Consumption through Power Source Renewal</b> <ul style="list-style-type: none"><li>Promoting replacement of obsolete thermal power plants domestically with a total cost of exceeding 1 trillion yen (7.31 GW total)</li><li>Decommissioning of obsolete thermal power plants in operation for more than 50 years (10.63 GW in total)</li></ul>		
Technology: Changes in Energy Supply Structure through the Development and Introduction of Non-Fossil Energy Technologies	Reduced utilization rate of traditional thermal power sources due to an increase in low-carbon energy and grid diversification	Sensitivity to reduced sales due to lower amounts of thermal power generation	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Reducing Power Plant Operation Costs to Improve Price Competitiveness for Power Sources</b> <ul style="list-style-type: none"><li>Improving O&amp;M model efficiency using best practices from both shareholder companies</li><li>Streamlining through procurement and outsourcing of materials and equipment utilizing economies of scale</li><li>Optimizing power plant business and operation by promoting digital power plants</li></ul>		
	Expanded of business opportunities through development and lowered costs for hydrogen & ammonia fuel technology	Sensitivity to operation cost reduction by replacing coal with ammonia	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Promoting the Development of Zero-Emission Thermal Power Technology</b> <ul style="list-style-type: none"><li>Large-scale fuel ammonia demonstration tests at Hekinan Thermal Power Station Unit 4: ➡ P. 40</li><li>Participating in the Green Innovation Fund Projects, promoting demonstration tests for hydrogen power generation technology at LNG thermal power plants.</li></ul>		
		Sensitivity to operation cost reduction by replacing LNG with hydrogen	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Establishing Hydrogen &amp; Ammonia Supply Chains</b> <ul style="list-style-type: none"><li>Promoting collaboration with leading companies, both domestic and overseas, at each stage of the value chain</li><li>Clean hydrogen &amp; ammonia transaction volume target (FY2035 total): Approx. 7 million tons</li></ul>		
	Expanded business opportunities provided by reduced technology costs for renewable energy and storage batteries	Sensitivity to operation cost reduction by lowering construction and operation maintenance costs for offshore wind power	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Promoting the Development of Renewable Energy Sources Centered on Offshore Wind Power</b> <ul style="list-style-type: none"><li>Development output target for renewable energy (FY2035 total): 20 GW, ➡ P. 35</li><li>Establishing a new company (JERA Nex) to expand the development and introduction of renewable energy: ➡ P. 20</li><li>Launching commercial operation of Ishikari Bay New Port Offshore Wind Farm</li></ul>		
		Sensitivity to operation cost reduction by lowering construction and operation maintenance costs for solar and onshore wind power	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Supporting Adoption of Renewable Energy through Storage Batteries</b> <ul style="list-style-type: none"><li>Developing a recycling process for electric vehicle lithium-ion batteries with low carbon impact</li><li>Constructing a large-capacity Sweep Energy Storage System using batteries reclaimed from electric vehicles</li></ul>		

# Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

TCFD  
TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES



Risk/Opportunity Categories: Projected Changes in Business Circumstances	Impact on JERA	Analysis of Potential Financial Impact Sensitivity on JERA						JERA's Measures and Examples of Related Initiatives
		Method of Assessment	Corresponding Business	Unit	2025	2035	2050	
▼ 1.5°C Scenario								
Market and Services: Increased Demand for Electricity Driven by Economic Growth and Electrification	Expanded opportunities to supply power	Sensitivity to increases in sales due to reduced volume of electricity sold	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Flexible Reallocation of Investments based on Market Environment, Technological Innovations, and Policy Trends</b> <ul style="list-style-type: none"><li>Cumulative investment in three strategic positionings (LNG, Renewable Energy, Hydrogen &amp; Ammonia) from FY2024 to FY2035: 5 trillion yen, ➡ P. 24</li></ul>		
	Decrease in fuel sales and trading due to reduced fossil fuel prices	Sensitivity to the decrease in LNG sales due to falling LNG prices	Fuel Upstream	Billions yen/ MTPA-LNG	<div><div></div><div></div><div></div></div>	<b>Maintenance of a Flexible and Competitive Fuel Procurement and Sales Portfolio</b> <ul style="list-style-type: none"><li>Promoting fuel procurement that is highly stable, competitive, and flexible in operation, utilizing upstream interest and fuel transports on hand: ➡ P. 31</li><li>Optimizing flexible procurement, resale, etc., through JERA GM: ➡ P. 33</li><li>Considering collaboration to establish and strengthen the LNG value chain</li></ul>		
Sensitivity to the decrease in LNG trading sales due to falling LNG prices		Transportation and Trading	Billions yen/ MTPA-LNG	<div><div></div><div></div><div></div></div>				
Increased customer demand for green products and services due to the rise in non-fossil value		Sensitivity to carbon costs avoided through green power production	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Provision of Added Value through Clean Energy Supply Platform</b> <ul style="list-style-type: none"><li>Launching demonstrations for 24/7 carbon-free electricity* supply with Shizen Connect Inc.</li><li>Piloting hourly renewable energy data control technology with Flexidao</li><li>Concluding a basic agreement with The University of Tokyo on the real-world implementation of carbon-free electricity by combining digital and energy technology</li><li>Establishing JERA Cross, a new company to help companies accelerate GX</li></ul> <small>*Refers to any electricity source that does not emit CO<sub>2</sub> for 24 hours a day, 7 days a week—in other words, 365 days a year.</small>		
		Sensitivity to carbon costs avoided through green fuel production	Fuel Upstream	Billions yen/ MTPA-LNG	<div><div></div><div></div><div></div></div>			
Market Services and Reputation: Growing Global Awareness of Climate Change	Financial constraints due to limited investment in and divestment from the fossil fuel business	Sensitivity to increased operating costs when the funding procurement cost for power generation businesses worsens by 1 point	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>Active Information Dissemination to Stakeholders</b> <ul style="list-style-type: none"><li>Appropriate information dissemination regarding zero-emission initiatives</li><li>Communicating with local communities through JERA Museum Hekinan, a facility for community engagement</li></ul>		
	Expanded opportunities to invest in clean energy projects and utilize climate transition finance	Sensitivity to increased operating costs when the funding procurement cost for power generation businesses improves by 1 point	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>			
4°C Scenario								
Acute: More frequent/Severe Natural Disasters	Increased cost of disaster response	Sensitivity to increased operating costs from switching power sources due to facility shutdown and output constraints	Power Generation	Billion yen/ TWh	<div><div></div><div></div><div></div></div>	<b>System Reinforcement in the Event of a Large-Scale Disaster</b> <ul style="list-style-type: none"><li>Establishing emergency disaster countermeasure regulations and related manuals: ➡ P. 86</li><li>Implementing periodic disaster drills: ➡ P. 86</li><li>Improving JERA's BCP and BCM: ➡ P. 86</li></ul>		
Chronic: Chronic Changes in Climate Patterns	Increased operational restrictions on facilities due to factors like drought				<div><div></div><div></div><div></div></div>			

## Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

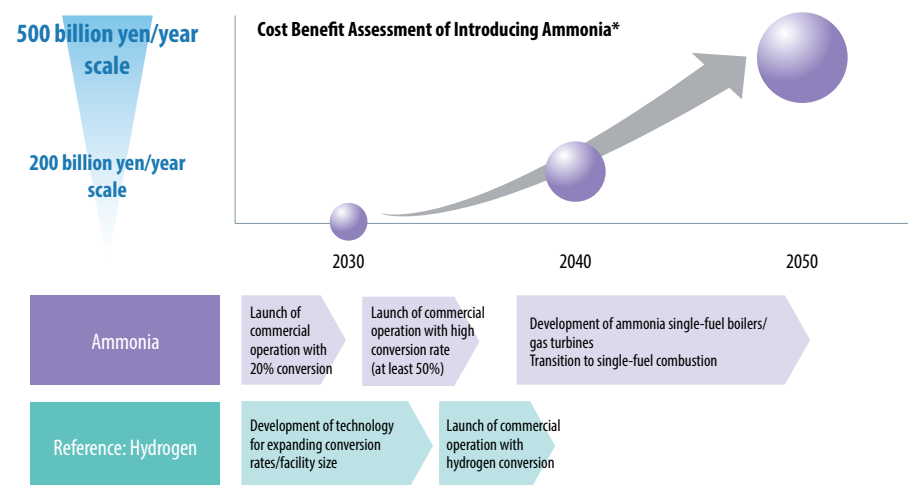
### Assessment of Impact on Our Business: A Deep Dive into the 1.5°C Scenario

In light of the steady progress we have made in our business toward achieving JERA Zero CO<sub>2</sub> Emissions 2050 since announcing it in October 2020, and due to changes in business circumstances, we formulated a new long-term vision for 2035, unveiling a set of new environmental targets for achieving the new vision: JERA Environmental Target 2035. We will update the JERA Zero CO<sub>2</sub> Emissions 2050 Roadmap for its Business in Japan based on the new targets and present our updated plan for introducing hydrogen & ammonia conversion in Japan.

As with the previous deep dive into scenario analysis in line with the TCFD Recommendations in FY2023, we analyzed the financial impact on JERA, targeting the introduction of ammonia into our power generation business ahead of technology development, assuming the 1.5°C scenario and the upstream plan for introducing ammonia in Japan.

Our analysis revealed potential cost advantages on the order of 200 billion yen per year by 2040 and 500 billion yen per year by 2050 compared to the scenario in which we continue using coal.

We will continue to proactively develop large-scale fuel ammonia power generation technology and other decarbonization technologies in addition to devoting energy to ensuring the economic viability of the technologies so that they can help the world move away from carbon as a source of energy.



\*All figures are calculated based on assumed parameters (e.g., reference scenarios). Actual cost-effectiveness might differ as business circumstances change. The sizes of the circles in the graph illustrate ammonia amounts. Hydrogen is not included in the scope of this impact assessment. The plan for introducing hydrogen is provided here for reference.



## Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)

### Strategies for Natural Capital

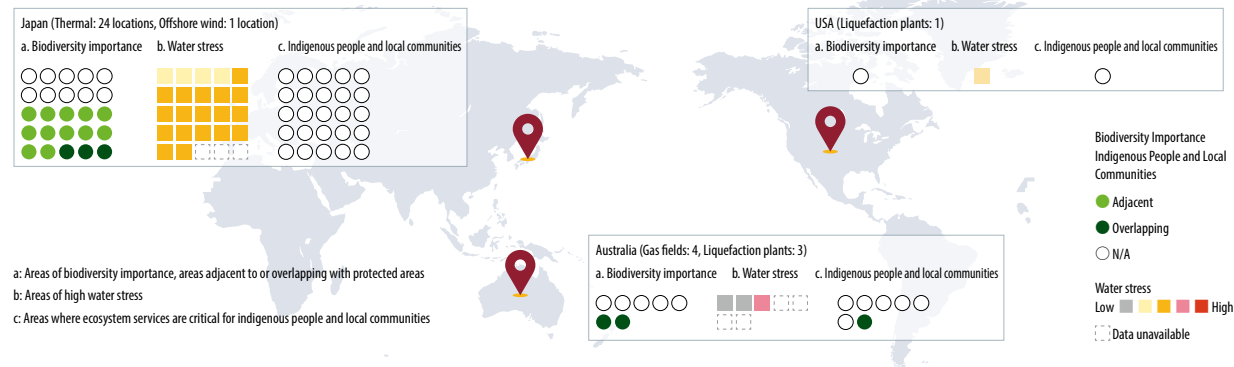
We adopted the LEAP approach advocated in the TNFD disclosure framework to ascertain the relationship between the dependencies and impacts of our business on nature and assess risks and opportunities.

### Locating Our Interface with Nature














In the L (Locate) stage of LEAP, we used IBAT<sup>\*1</sup> and other tools to identify whether our business locations are in areas susceptible to the impacts of natural capital and biodiversity. We set the scope of evaluation to upstream LNG fuel development business and thermal and offshore wind power generation business in our value chain.

#### Areas Identified as High-Stress/Critical at Each Location



In addition to the results from IBAT and other analytical tools, we identified five priority locations warranting special consideration given the operating status of facilities and the actual usage of natural capital (especially water resources) at each location. We will continue to take proper measures in accordance with laws and regulations and engage with our stakeholders.

Value Chain Stage	Location Name		Eco-Sensitive Areas			Description <sup>*2</sup>
			Biodiversity Importance	Water Stress	Indigenous People and Local Communities	
Direct operation (Upstream development business)	Gas field	Wheatstone LNG, Australia				The largest gas field in our upstream development business in terms of LNG procurement, overlaps with a protected area.
Direct operation (Upstream development business)	Liquefaction plant	Wheatstone LNG, Australia				Ashburton North—the location of the liquefaction plant—has a confirmed overlap with land managed by indigenous people.
Direct operation (Upstream development business)	Liquefaction plant	Gorgon LNG, Australia				Barrow Island—the location of the liquefaction plant—has a confirmed overlap with an area of biodiversity importance and a protected area, as well as high water stress.
Direct operation (Power generation business)	LNG power generation	Futtsu Thermal Power Station				Our largest LNG thermal power plant in terms of power generation, dependent on water resources (industrial water and seawater).
Direct operation (Power generation business)	Coal power generation	Hekinan Thermal Power Station				Our largest coal-fired power plant in terms of power generation, dependent on water resources (industrial water and seawater).

<sup>\*1</sup> IBAT: A biodiversity assessment tool developed by the International Union for Conservation of Nature (IUCN) and others.

<sup>\*2</sup> We used tools to analyze the integrity and rapid degradation of ecosystems, and took the results into account when identifying priority areas.

### Analyzing Dependencies and Impacts



In the Evaluate stage of LEAP, we used ENCORE<sup>\*3</sup> to elucidate the relationship between the dependencies and impacts of our value chain on nature. With ENCORE, we can select the relevant business or production process and analyze its dependencies and impacts on nature in five levels.

Dependencies/Impacts		Coal Procurement	LNG Procurement	Thermal Power Generation	Solar Power Generation	Wind Power Generation	Biomass Power Generation
Dependencies	Supply Services						
	Textiles and other raw materials <sup>*4</sup>						■
	Groundwater	■	■	■	■		■
	Surface water	■	■	■ <sup>*5</sup>	■		■
	Water volume control	■		■			■
	Water purification		■	■			■
	Biodegradation		■	■			■
	Filtration		■	■			■
	Climate control	■	■	■	■	■	■
	Flood and storm control		■	■	■	■	■
	Erosion control	■	■	■	■	■	■
Impacts	Land Use						
	Use of land areas	■	■		■	■	
	Use of freshwater areas	■	■	■		■	
	Use of marine areas		■			■	
	Resource Extraction						
	Water use	■	■	■ <sup>*5</sup>	■		■
	Climate Change						
	GHG emissions	■	■	■			■
	Pollution						
	Air pollution	■	■	■			■
	Water contamination	■	■	■	■	■	■
	Soil contamination	■	■	■	■	■	
	Solid waste	■	■	■			■
	Disturbance						
	Invasive species, etc.	■	■	■		■	

<sup>\*3</sup> ENCORE: An analytical tool for visualizing how business activities depend on and could impact nature, developed jointly by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), financial institutions, and others. The analysis is based on data as of March 2024.

<sup>\*4</sup> Refers to textiles and other raw materials derived from plants and animals; does not include fossil fuels.

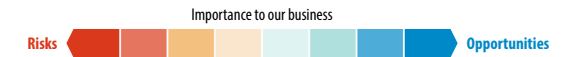
<sup>\*5</sup> Although the ENCORE results indicated "Very High" dependency on rivers, other surface water and the impact on water use for thermal power generation, we consider it to be "Moderate" based on actual usage in the context of our business.



# Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)



## Assessing Risks and Opportunities and Preparing to Take Action



In the Assess and Prepare stages of LEAP, we exhaustively identified nature-related risks and opportunities in our business based on the results of dependencies and impacts on nature from the Evaluate stage. We divided the risks and opportunities into three time frames: short-term (through 2025), medium-term (2026–2035), and long-term (2036–2050). In addition, we evaluated importance to our business based on the likelihood of occurrence and magnitude of the risks and opportunities.

Description of Business	Risks/Opportunities	Impact on JERA	Power Sources	Importance	Period	JERA's Measures and Examples of Related Initiatives
Fuel Procurement	Risks	Suspending or limiting thermal power generation operations due to the development/strengthening of environmental regulations during the fuel procurement phase	Coal	■	Medium- to long-term	<b>Environmentally Responsible Fuel Procurement</b> <ul style="list-style-type: none"> <li>Monitoring regulatory trends and complying with laws and regulations</li> <li>Launching a joint initiative with KOGAS to reduce methane emissions in the LNG value chain</li> <li>Using pellets certified by the Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC)</li> <li>Using scrap wood from sawmills (e.g., wood that cannot be used in construction or to make furniture) as a raw material for pellets</li> <li>Engaging with stakeholders</li> </ul>
			LNG	■	Medium- to long-term	
			Biomass	■	Medium- to long-term	
Power Generation	Risks	Emergence of reputational risks and cost of response in thermal power generation due to impacts on the environment, local communities, and indigenous people during the fuel procurement phase	Coal	■	Medium- to long-term	
			LNG	■	Medium- to long-term	
			Biomass	■	Medium- to long-term	
	Risks	Increased cost of compliance with, and fines/penalties from stricter environmental regulations and laws on waste, water contamination, land development, etc.	Thermal (all types)	■	Medium- to long-term	<b>Prevention of Air and Water Pollution</b> <ul style="list-style-type: none"> <li>Complying with laws and regulations to prevent air pollution and other types of environmental pollution</li> <li>Preventing air pollution by installing exhaust gas denitration and desulfurization equipment, electrostatic precipitators, and the like, and improving combustion methods: → P. 59</li> <li>Implementing water quality conservation measures: → P. 60</li> </ul> <b>Resource Recycling</b> <ul style="list-style-type: none"> <li>Reusing limestone from thermal power plants as a raw material for cement and the like</li> <li>Reducing waste from and recycling plastic products</li> </ul> <b>Promotion of Environmental Conservation Activities</b> <ul style="list-style-type: none"> <li>Properly maintaining green spaces in accordance with the Factory Location Act and other legislation</li> <li>Conserving and maintaining rare species (low-noise construction in consideration of falcons, installing birdhouses for habitat conservation)</li> <li>Participating in the Inochi-wo-Tsunagu (Life Sustaining) PROJECT and carrying out activities aimed at improving biodiversity and creating an ecosystem network (Chita Thermal Power Station)</li> <li>Participating in the Keidanren Initiative for Biodiversity Conservation declared by Keidanren (Japan Business Federation)</li> <li>Sustainability Promotion System: → P. 47</li> <li>Providing environmental education for power plant employees</li> </ul>
			Offshore wind	■	Medium- to long-term	
			Solar	■	Medium- to long-term	
	Risks	Increased reputational risk and cost of response from impacts on nature	Thermal	■	Medium- to long-term	
			Offshore wind	■	Medium- to long-term	
			Solar	■	Medium- to long-term	
	Risks	Stricter reporting requirements on nature-related impacts and risks, increased cost of monitoring and reporting	All	■	Short- to long-term	
	Opportunities	Expansion of environmental green bonds and other fundraising opportunities	All	■	Medium- to long-term	
	Opportunities	Improved reputation among investors, NGOs, and local communities through activities that have a positive impact on nature (e.g., protected areas) and coexisting with local communities	All	■	Short- to long-term	
Fuel Procurement	Risks	Supply chain disruptions due to natural disasters, increased costs associated with response	Coal	■	Short- to long-term	<b>Business and Supply Chain Diversification</b> <ul style="list-style-type: none"> <li>Promoting power source portfolio diversification through zero-emission thermal power development and the expansion of renewable energy sources</li> <li>Promoting diversification of procurement sources and business regions (Overseas power generation projects: approx. 30 projects in more than 10 countries; Upstream investment projects: 6 projects in 2 countries, LNG cargo fleet: 23 vessels)</li> </ul>
			LNG	■	Short- to long-term	
			Biomass	■	Short- to long-term	
	Risks	Production stoppages and increased water management cost due to reduced supply from water resources	Coal	■	Short- to long-term	
			LNG	■	Short- to long-term	
			Biomass	■	Short- to long-term	
Power Generation	Opportunities	Diversify suppliers, ensure resilience in procurement by improving resource efficiency, reduce and stabilize procurement costs	Coal	■	Short- to long-term	
			LNG	■	Short- to long-term	
			Biomass	■	Short- to long-term	
	Risks	Increased costs associated with dealing with shutdowns, reduced sales, and other problems caused by natural disasters	Thermal (all types)	■	Short- to long-term	<b>System Reinforcement in the Event of a Large-Scale Disaster</b> <ul style="list-style-type: none"> <li>Establishing emergency disaster countermeasure regulations and related manuals: → P. 86</li> <li>Implementing periodic disaster drills: → P. 86</li> <li>Improving JERA's BCP and BCM: → P. 86</li> </ul>
			Offshore wind	■	Short- to long-term	
			Solar	■	Short- to long-term	
	Risks	Restricted water supply to factories and decrease in production and sales due to drought, water contamination, etc.	Thermal (all types)	■	Short- to long-term	

## Climate- and Nature-related Disclosures (Response to TCFD and TNFD Recommendations)



Taskforce on Nature-related  
Financial Disclosures

### Metrics and Targets

We view JERA Zero CO<sub>2</sub> Emissions 2050 as a long-term goal and have developed a roadmap for achieving it as well as interim targets for CO<sub>2</sub> emission intensity by 2030 and CO<sub>2</sub> emissions by 2035. In addition, we continue to calculate and assess actual results each year to manage our progress. We have also formulated the JERA Group Sustainability Policy and expanded non-financial KPIs for 2024. We will continue to promote initiatives toward sustainable management.

#### Climate- and Nature-related Targets for Non-Financial KPIs

20% reduction in CO<sub>2</sub> emission intensity by 2030

More than 60% reduction in CO<sub>2</sub> emissions by 2035

Maintaining the world's highest standards for controlling NO<sub>x</sub> and SO<sub>x</sub> emissions

Hydrogen & ammonia transaction volume of 7 MT by 2035

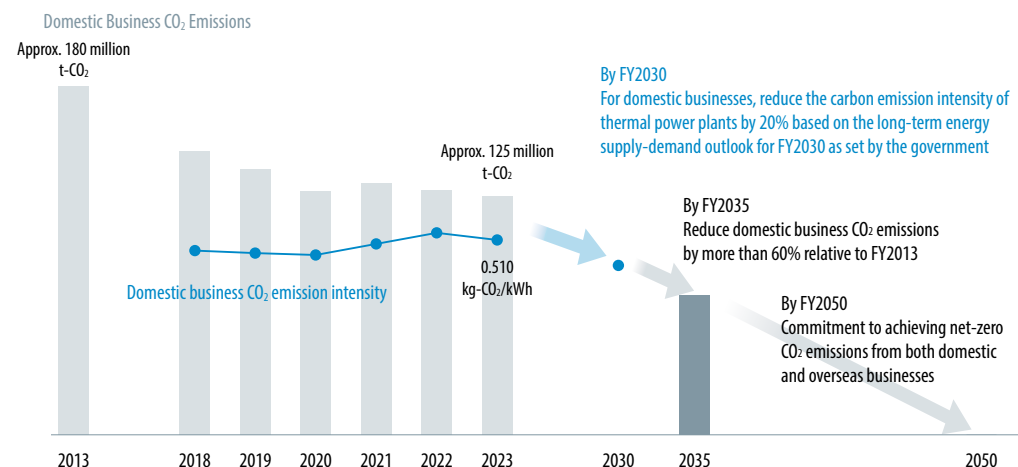
Renewable energy development capacity of 20 GW by 2035

CO<sub>2</sub> tracking throughout the value chain

Creation of mechanism that can deliver carbon-free electricity to customers 24 hours a day

Identification of regional issues and collaboration with regions to resolve issues

Global collaboration on and development of local initiatives to solve regional issues



# Avoided Emissions



## What Are Avoided Emissions?

Avoided emissions refer to a metric that evaluates how much a company contributes to reducing greenhouse gas (GHG) emissions across society through the solutions it provides, such as its products and services.

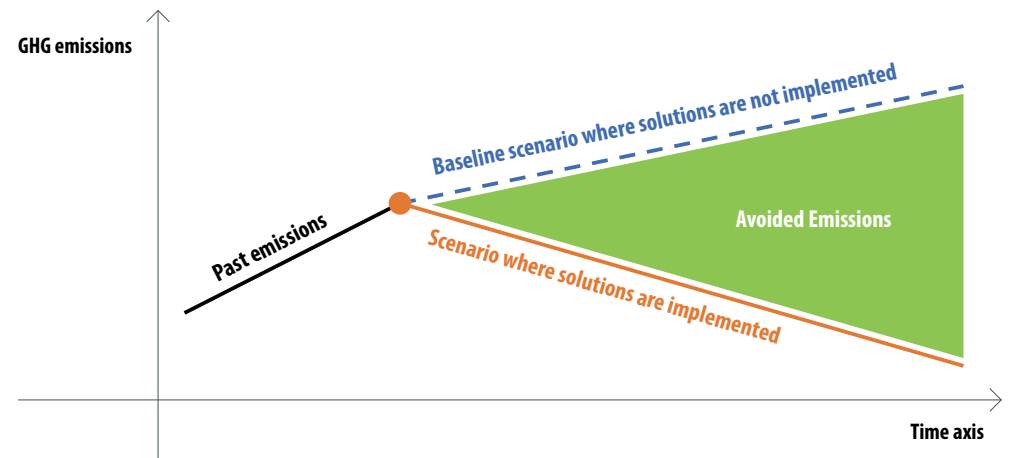
Avoided emissions are evaluated based on a different concept than Scope 1, 2, and 3 emissions, which measure a company's own emissions.

Scope 1 represents a company's direct emissions; Scope 2 refers to indirect emissions from the use of electricity, heat, or steam supplied by other companies; and Scope 3 includes all other indirect emissions in the supply chain, excluding those covered by Scope 1 and 2.

In contrast, avoided emissions reflect the greenhouse gas (GHG) reductions that occur when comparing a baseline scenario with a scenario in which the company's solutions contribute to lowering emissions. This approach clarifies how much a company's business activities have contributed to reducing GHG emissions across society and enables the assessment of the emission reduction effects of new technologies and solutions. To promote these initiatives and support accurate calculation, organizations such as the World Business Council for Sustainable Development (WBCSD) and the GX League are advancing the development of methodologies for utilizing avoided emissions.

While referring to these frameworks, we calculate and disclose the reduction contributions from our business activities in addition to the traditional Scope 1, 2, and 3 emissions. This allows us to explain to our stakeholders how we are contributing to the realization of a sustainable society.

### Image of Avoided Emissions



Source: Based on the WBCSD's "Guidance on Avoided Emissions"

## Avoided Emissions

### Avoided Emissions from Our Business Activities

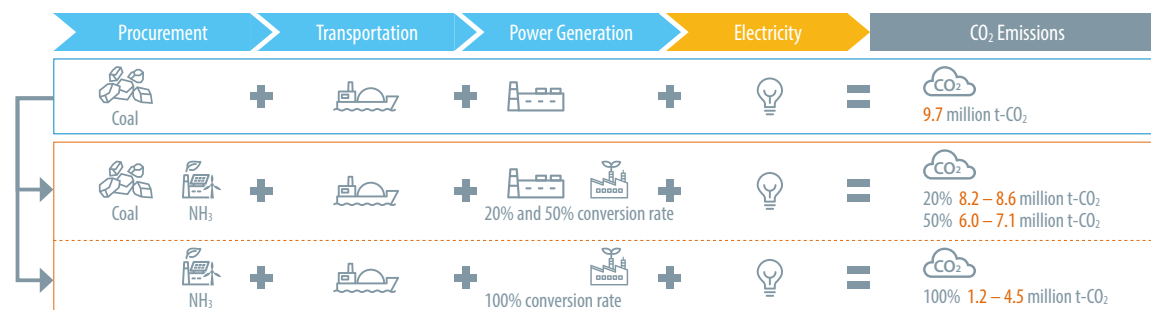
We evaluated the avoided emissions of our solutions related to power and fuel supply, such as fuel conversion to ammonia at thermal power plants, development of renewable energy, and provision of hydrogen & ammonia, by referring to WBCSD guidance and the GX League's basic guidelines.

Our Business

Usage by Customers

#### Fuel Conversion to Ammonia at Thermal Power Plants

Avoided Emissions: up to **8.5** million t-CO<sub>2</sub>



#### How We Calculate Avoided Emissions

We calculated the avoided emissions for Hekinan Thermal Power Station, where fuel conversion to ammonia is ongoing, at each stage of conversion rates—20%, 50%, and 100%—by estimating the reduction achieved through avoiding the use of traditional coal.

#### Calculation Conditions

##### Baseline Scenario

Subject: Hekinan Thermal Power Station Units 4 and 5

Duration: 1 year

Fuel: Coal

Boundary: From procurement to power usage

##### Implementation Scenario

Subject: Hekinan Thermal Power Station Units 4 and 5

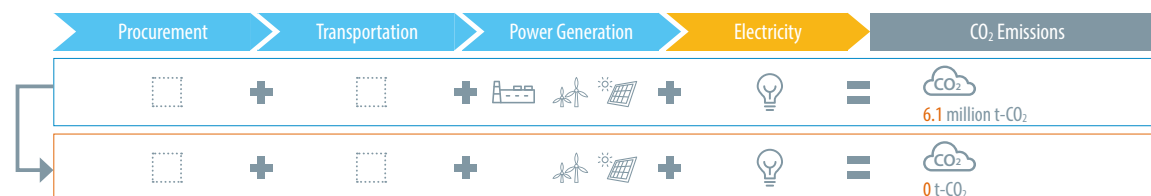
Duration: 1 year (conversion rates: 20%, 50%, 100%)

Fuel: Ammonia (blue or green)

Boundary: From procurement to power usage

#### Development of Renewable Energy

Avoided Emissions: up to **6.1** million t-CO<sub>2</sub>



#### How We Calculate Avoided Emissions

We calculated the avoided emissions achieved by reducing the emission intensity\* of grid power through the development of 20 GW of renewable energy by FY2035, as outlined in the JERA Growth Strategy.

#### Calculation Conditions

##### Baseline Scenario

Duration: 1 year (FY2035)

Boundary: From generation to power usage

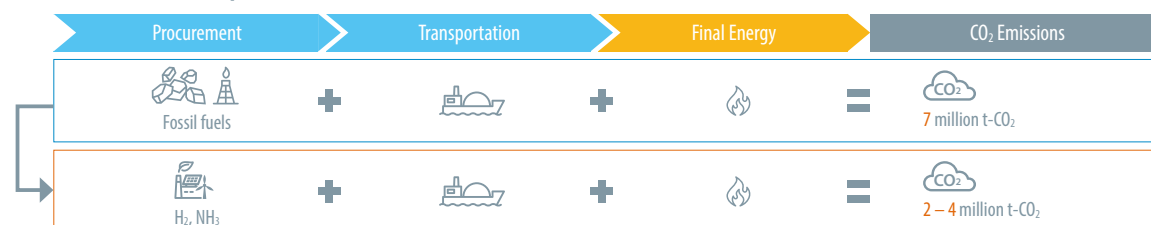
##### Implementation Scenario

Duration: 1 year (FY2035)

Boundary: From generation to power usage

#### Provision of Hydrogen & Ammonia

Avoided Emissions: up to **5** million t-CO<sub>2</sub>



#### How We Calculate Avoided Emissions

We calculated the avoided emissions achieved by avoiding the use of fossil fuels through the handling and supply of approximately seven million tons of hydrogen & ammonia (in ammonia equivalent) by FY2035, as outlined in the JERA Growth Strategy (excluding the ammonia consumption assumed in "Fuel Conversion to Ammonia at Thermal Power Plants").

#### Calculation Conditions

##### Baseline Scenario

Duration: 1 year (FY2035)

Fuel: Fossil fuels\*

Boundary: From procurement to final energy use

##### Implementation Scenario

Duration: 1 year (FY2035)

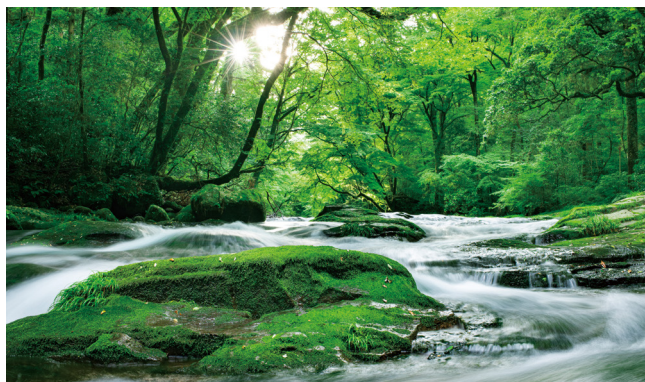
Fuel: Hydrogen & ammonia (blue or green)

Boundary: From procurement to final energy use

\*Estimated based on IEA World Energy Outlook 2023 APS (Japan)



# Environment



## Issue Awareness

As the world's population grows and the global economy develops, we see increasingly severe environmental issues on a global scale, including overuse of resources, waste and pollution, and loss of biodiversity. Global warming, in particular, is progressing due to increased greenhouse gas emissions, and disasters caused by extreme weather events are becoming more frequent and intense worldwide.

Given this context, the adoption of the SDGs and the Paris Agreement by the international community has accelerated the development of targets and frameworks aimed at addressing climate change, the conservation of biodiversity, and the creation of a recycling-oriented society. As a result, there are increasing demands and expectations for governments and companies to take action.

We are committed to taking the initiative in working to solve environmental issues while coordinating with our stakeholders by utilizing our technologies and know-how to realize a sustainable society that works for the environment and the economy.

## Fundamental Approach

As a leader in the domestic thermal power generation industry, we respect energy and environmental policies such as the Strategic Energy Plan and

actively promote renewable energy development.

Furthermore, as we seek to become a global energy company, we are acutely aware of the need to protect the environment on a global scale. We strictly observe the environmental laws and regulations of each country and region where we do business and are committed to reducing our environmental footprint. This involves not only reducing CO<sub>2</sub> emissions and preventing air and water pollution but also striving for biodiversity conservation to realize a sustainable environment, society, and economy.

## Environmental Management System

To minimize resource consumption and the generation of environmentally hazardous substances, we are actively working to improve power generation efficiency, reduce CO<sub>2</sub> emissions, remove air and water pollutants, recycle waste, and preserve biodiversity.

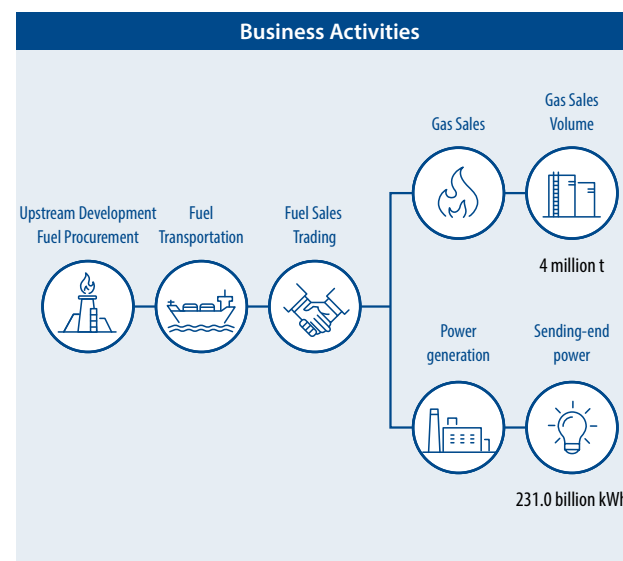
We have also established the Sustainability Promotion Committee to enhance our Sustainability management. Chaired by the President, CEO and COO, this cross-divisional committee oversees the entire company and examines environment-related issues and their corresponding measures, with significant issues brought to the Leadership Panel for resolution. We will continue to improve our environmental management and contribute to the development of a sustainable society. (Sustainability Promotion Structure: p.47)

## Environmental Education

We provide training for employees involved in environmental operations at our power plants and other facilities so that they can acquire the necessary knowledge and skills concerning the environment. Training levels correspond to job class and proficiency, and we are working to develop environmental education programs for employees.

### Material Balance (FY2023\*)

INPUT	
<b>Fuel consumption</b>	
Biomass	0.46 million t
LNG & LPG	23.05 million t
Utility gas	1.7 billion Nm <sup>3</sup>
Coal	20.03 million t
Petroleum	0.22 million kl
<b>Total energy consumption</b>	
48.44 million kl (crude oil equivalent)	<b>Purchased electricity</b>
	179.69 million kWh
<b>Water usage</b>	
Total water intake	21,246 thousand m <sup>3</sup>
Industrial water intake	19,299 thousand m <sup>3</sup>
Tap water intake	1,855 thousand m <sup>3</sup>
Groundwater intake	62 thousand m <sup>3</sup>



OUTPUT	
<b>GHG emissions (CO<sub>2</sub> equivalent)</b>	
Scope 1	113,756 thousand t-CO <sub>2</sub>
Scope 2	70 thousand t-CO <sub>2</sub>
Scope 3	31,709 thousand t-CO <sub>2</sub>
Total	145,534 thousand t-CO <sub>2</sub>
<b>SO<sub>x</sub> emissions</b>	
6 thousand t	<b>Gross wastewater volume</b>
	10,682 thousand m <sup>3</sup>
<b>NO<sub>x</sub> emissions</b>	
15 thousand t	<b>COD emissions</b>
	30 t
<b>Disposal by reclamation</b>	
19 thousand t	

\*Figures for JERA operations in Japan and joint ventures with Hitachinaka Generation Co., Inc., JERA Power TAKETOYO LLC., JERA Power YOKOSUKA LLC., and JERA Power ANEGASAKI LLC., Green Power Ishikari GK.

## Environment

### Reducing CO<sub>2</sub> Emissions

In October 2020, we announced JERA Zero CO<sub>2</sub> Emissions 2050 as our commitment to curbing CO<sub>2</sub> emissions for the future. With our mission to provide cutting-edge solutions to the world's energy issues, we will take on the challenge of achieving net-zero CO<sub>2</sub> emissions from our operations in Japan and abroad by 2050 in order to realize a sustainable society.

As part of our initiatives in the field of renewable energy, in December 2023, a consortium of four companies, of which JERA is a member, was selected as the operator for a large-scale offshore wind power generation project planned for development off the coast of Oga City, Katagami City, and Akita City in Akita Prefecture. In January 2024, we also began commercial operation of the Ishikari Bay New Port Offshore Wind Farm, which we own through Green Power Ishikari GK, a joint venture company, together with Green Power Investment Corporation (GPI). This offshore wind farm is Japan's largest and the first in the country to adopt large 8,000 kW wind turbines.

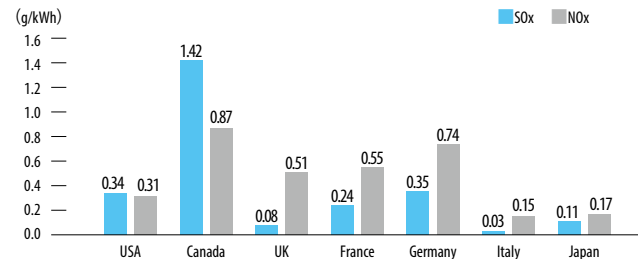
As part of our initiatives to reduce CO<sub>2</sub> emissions from thermal power generation, we have completed demonstration tests at Hekinan Thermal Power Station, achieving a world-first by converting 20% of a large-scale commercial coal-fired power generator to ammonia combustion (Initiatives at Thermal Power Plants in Japan: p.40). We are also working on multiple projects related to the production of low-carbon hydrogen & ammonia, as well as investigating the feasibility of projects related to the separation and recovery of CO<sub>2</sub> emitted from thermal power plants.

We will promote the adoption of greener fuels and pursue zero-emission thermal power during power generation. We aim to achieve zero emissions by supplementing the introduction of renewable energy, which is susceptible to natural conditions, with zero-emission thermal power, which can generate electricity in a stable manner without CO<sub>2</sub> emissions.

### Ecosystem Conservation Initiatives

Air pollutants emitted from our thermal power plants include sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), soot, and dust, primarily from boiler exhaust. To comply with emission standards set by laws and ordinances as well as environmental conservation agreements with municipalities, we are improving combustion methods and working to reduce emissions by installing exhaust gas desulfurization equipment, exhaust gas denitration equipment, electrostatic precipitators, and other equipment. In FY2023, our SO<sub>x</sub> and NO<sub>x</sub> emissions per unit of production were 0.03 g/kWh and 0.07 g/kWh, respectively, which are extremely low compared to emissions per unit of production in Japan and major Western countries.

#### SO<sub>x</sub> and NO<sub>x</sub> Emissions per Unit of Power Generation Output in Major Countries for 2021 (Thermal power plant)



Source: Federation of Electric Power Companies of Japan (FEPC), "Energy and Environment," p.26 (SO<sub>x</sub> and NO<sub>x</sub> emissions data: OECD Stat Extracts; Power generation data: Compiled by FEPC based on IEA "WORLD ENERGY BALANCES")

### Featured

#### Independent Assurance on Environmental Data

To enhance the credibility of our environmental data, starting with values reported for FY2021, we have received independent third-party assurance from KPMG AZSA Sustainability Co., Ltd., for certain environmental data, including GHG emissions, which is available on our corporate website.



E Environmental Data

<https://www.jera.co.jp/en/sustainability/data/e>



Independent Assurance Report on Environmental Data

<https://www.jera.co.jp/en/sustainability/report>

#### Participation in the TNFD Forum

The Taskforce on Nature-related Financial Disclosures (TNFD) is an international framework for companies to assess the impact of their economic activities on natural capital and biodiversity and to disclose risks and opportunities. The TNFD Forum is an organization that supports the objectives of the TNFD by endorsing and participating in discussions and other related activities.

We are committed to actively contributing to TNFD-related initiatives while promoting efforts toward sustainable management.  
(Our disclosures in line with TNFD: p.48)



## Environment

### Water Quality Conservation Measures (Consideration for Marine Environments)

Wastewater generated by our thermal power plants is purified using wastewater treatment facilities to comply with the effluent standards set by laws and ordinances, as well as environmental conservation agreements we have with municipalities. We properly discharge this wastewater while continuously monitoring it with water quality measurement instruments. In addition, to keep the temperature of the seawater used in the condenser from rising, we take it in slowly from the deeper layers where the temperature is lower. When discharging it, we do so slowly to the surface by reducing the discharge velocity, giving full consideration to the environmental impact on the surrounding sea.

### Initiatives Related to Resource Recycling

We are actively engaged in recycling to make effective use of limited resources. We are promoting the effective use of coal ash, a byproduct of our coal-fired power plant, as a raw material for cement and land development because of its excellent properties, which include fine grain, light weight, and increased strength. Our effective utilization rate of coal ash in FY2023 was 99.99%.

Furthermore, in compliance with the Act on Promotion of Resource Circulation for Plastics (commonly referred to as the Plastic Resource Circulation Act), we are proactively working to reduce and reuse industrial plastic waste generated from our business activities. The amount of waste plastic discharged was 472 tons and the effective utilization rate in FY2023 was 96.88%.



### State of Waste Treatment Facility Maintenance

The Act on Waste Management and Public Cleansing requires that information on the status of the maintenance and management of waste

treatment facilities be made public. We properly maintain and manage our waste treatment facilities and provide online reports regarding facility maintenance, including details such as the type and amount of waste disposed of, results of water quality measurements performed on discharged water, facility inspection results, and more.

**WEB** State of Waste Treatment Facility Maintenance  
<https://www.jera.co.jp/sustainability/environment/waste/maintenance> (Japanese)

### Control of Chemical Substances

We observe the requirements of the Pollutant Release and Transfer Register Act (PRTR; Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement) for chemical substances used at thermal power plants and are working on strict control and reduction of emissions based on internal rules.

### Compliance with Environmental Legislation

We make efforts toward environmental conservation by conducting business in accordance with environmental laws and regulations as well as local ordinances and environmental conservation agreements with municipalities. In FY2023, there were no cases involving fines or sanctions for violations of environmental laws and regulations.

### Environmental Impact Assessments and Consideration of Environments Surrounding Power Plants

When constructing or replacing power plants, we conduct assessments of the environmental impact on the surrounding environment both during construction and after the plant is operational in accordance with the Environmental Impact Assessment Act. We then explain the results to the municipality and community members and engage in dialogue with them.

Based on the results of these environmental impact assessments, we strive to conserve the surrounding environment by implementing appropriate noise, vibration control, and other measures, taking into consideration the impact on the surrounding environment.

### Primary Measures

Measure	Description
Noise and Vibration Control	Our noise and vibration control measures include choosing the proper placement of buildings and equipment, adopting equipment for reducing noise and vibration, and installing silencers and sound barriers.
Industrial Waste Control	We take steps to properly treat waste by creating manuals tailored to the operations of individual thermal power plants.
Landscape Preservation	We make efforts to ensure that power plants blend in with local scenery while considering costs.

### Featured

#### Successful Bid in the Long-Term Decarbonized Power Source Auction

Japan's long-term decarbonization power source auction is a system designed to provide stable, long-term revenue to energy producers using decarbonized power sources that do not emit CO<sub>2</sub> when generating electricity. This includes converting existing thermal power plants to use ammonia & hydrogen. We submitted a bid in the first auction and successfully secured contracts for Hekinan Thermal Power Station Units 4 and 5, which will undergo ammonia conversion, as well as Chita Thermal Power Station Units 7 and 8\*, where we aim to introduce hydrogen into LNG operations. To achieve JERA Zero CO<sub>2</sub> Emissions 2050, we will work to secure a stable supply and achieve carbon neutrality through the development of decarbonized power sources such as ammonia & hydrogen.

\*In light of the short-term need to prevent power supply shortages, LNG-fired thermal power plants are also included for the three-year period from FY2023 to FY2025.

#### Decarbonized Power Sources

Project Name (Power Source)	Power Source (Power Generation Method)	Awarded Capacity (kW)
Hekinan Thermal Power Station Unit 4	Modification (Ammonia Conversion)	187,334
Hekinan Thermal Power Station Unit 5	Modification (Ammonia Conversion)	187,315

#### LNG-Fired Thermal Power

Project Name (Power Source)	Awarded Capacity (kW)
Chita Thermal Power Station Unit 7	589,836
Chita Thermal Power Station Unit 8	589,836



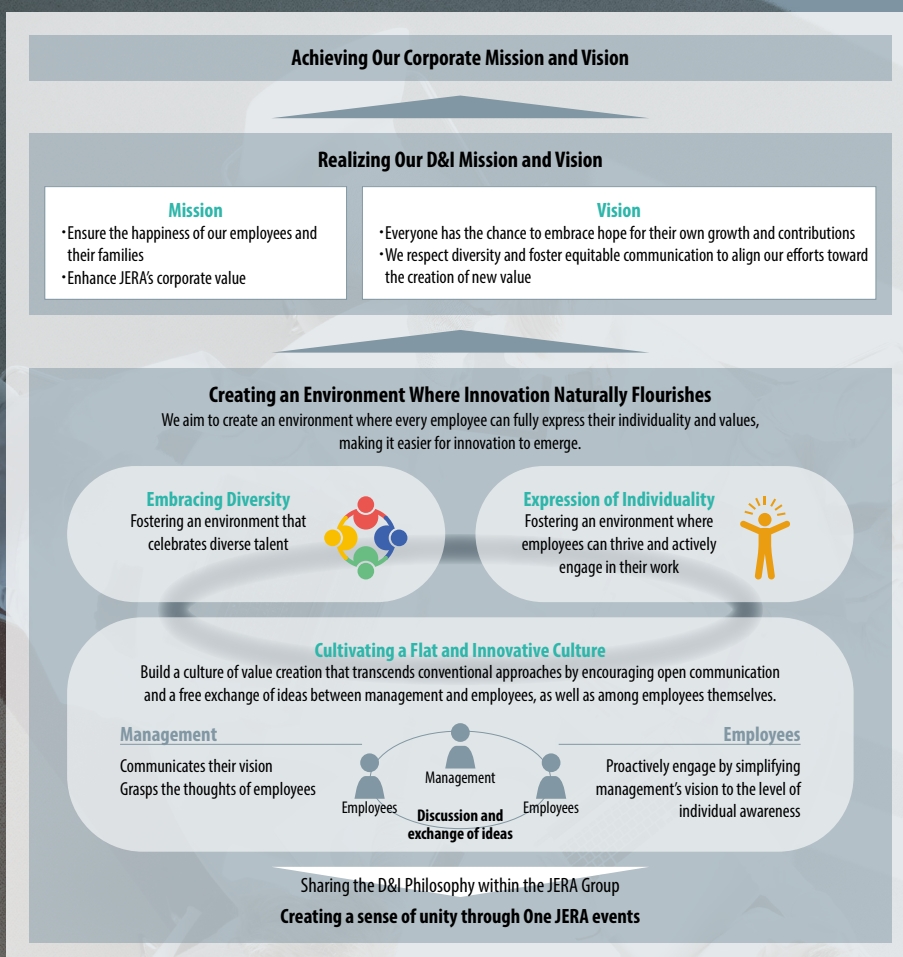
# Diversity and Inclusion

## Overview of D&I Promotion

### Fostering Innovation through Diverse Talent

Cutting-edge solutions, like those highlighted in our mission, require innovation that is capable of creating entirely new products, services, and processes.

Cultivating a flat and innovative culture. Expression of Individuality. Embracing diversity. The chart below shows our ongoing initiatives in these areas, aiming to create an environment where every employee can fully express their individuality and values, creating an environment where innovation can flourish.



## Promoting Diversity and Inclusion to Achieve Our Mission and Vision

Managing Executive Officer for Enterprise Value Creation  
**Minako Fujiie**

At JERA, the Enterprise Value Creation Division, which reports directly to the president, is currently driving diversity and inclusion (D&I). Top management emphasizes the importance of diversity in their communications and frames our D&I initiatives as vital to achieving our mission and vision.

D&I in Japan often focuses on superficial metrics, such as the percentage of female managers and the employment rates of individuals with disabilities. However, we are prioritizing a deeper understanding of diversity centered on the cultivation of a flat and innovative culture that embraces both minorities and majorities.

In other words, we believe it is essential to move beyond simply establishing a system that enables everyone to thrive regardless of gender, nationality, or religion and take that extra step to foster new innovations driven by the full expression of each employee's individuality and values in creating a vibrant new culture.

At JERA, we prioritize cultivating a flat and innovative culture where everyone takes a leading role in enhancing productivity, which is a distinctive feature of our D&I initiatives.

It is also true that as a power generation business, we have long valued the principle of uniform treatment, ensuring that a stable supply is maintained regardless of who is generating power and that quality is preserved no matter who is performing maintenance.

Our company, which is now committed to expanding globally with the convention-shattering goal of achieving zero-emission power generation, recognizes that relying solely on this long-held value is not enough to advance further. Power plants are also rapidly changing through digitalization and the implementation of generative AI, among other next-generation transformations. Although a group might appear tightly unified, there will always be inherent differences in individuality and values. Now is the time to leverage those differences to cultivate a culture where innovation can thrive naturally.



## Diversity and Inclusion

### Initiatives to Promote D&I

**We strive to foster an environment where every employee can fully express their individuality and values, thus encouraging innovation.**

#### Cultivating a Flat and Innovative Culture

We strive to cultivate a culture of value creation that transcends conventional approaches by encouraging open communication and the free exchange of ideas between management and employees, as well as among employees themselves.

#### ● Events hosted by JERA and JERA Overseas Sites

We host an annual forum where members from Japan and overseas sites gather in person to advance our D&I initiatives and foster mutual understanding between these regions. A sense of unity is fostered through the exchange of information and ideas that transcends barriers such as country, language, and position within the company.



Group photo of overseas office and head office employees

#### ● Lectures and Discussions Featuring Guest Experts

To encourage new value creation in our business, we host internal salons designed to expose employees to a variety of perspectives. We bring together experts from various fields, including specialists and artists outside the domain of power generation, to foster innovation through unconventional connections.



Dialogue between external experts and Hisahide Okuda (President, Director, CEO and COO)

#### ● World Café

These sessions bring employees who do not usually have the chance to interact in their daily work together in small groups to discuss themes such as D&I, company culture, and workplace development. These discussions help generate new ideas and solutions for various challenges.



Participants engaged in discussion

#### ● Events with Families

Family Days are held to bring together the families and partners of our employees. These events help deepen their understanding of the company, foster a sense of connection with JERA, and contribute to enhancing employee engagement satisfaction.



Group photo at D&I Family Day

#### Expression of Individuality (Creating an environment where employees can thrive)

#### ● Employee Satisfaction Survey

We conduct an annual employee satisfaction survey aimed at enhancing employee engagement and strengthening our corporate value. We quantitatively assess the following areas: the company (including management policies and strategies), the working environment (such as working hours and teamwork), skill development (like personal achievement and skill enhancement), and diversity and inclusion. Looking ahead, we will expand the survey to include our overseas sites and establish an index to measure the depth of cultural integration, aiming to enhance both this integration and employee engagement.

### ● D&I Suggestion Box

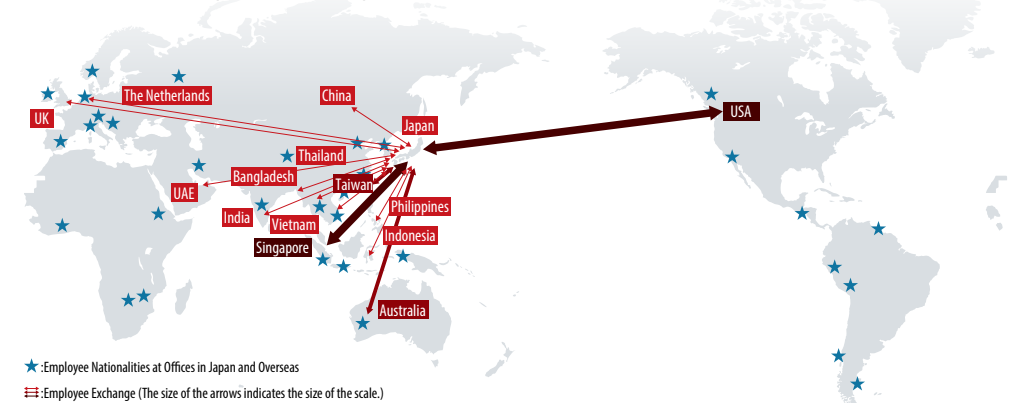
We have implemented a process that allows employees to freely share their thoughts—either anonymously or openly—regarding requests for improvements related to diversity and inclusion and initiatives to advance D&I in their workplaces. This process aims to foster two-way communication that bridges the intentions and feelings of both the company and its employees.

#### Embracing Diversity (Fostering an environment that celebrates diverse talent)

To achieve our mission and vision, we believe that the JERA Group must have the necessary diversity in its workforce. To that end, we are working to encourage personnel exchanges between our offices in Japan and those overseas while ensuring a diverse environment that is inclusive of all individual attributes.

#### ● Number of Employee Exchanges between Locations and the Number of Nationalities Represented

We have a diverse roster of personnel from various backgrounds working at our Japanese and overseas sites, with 48 different nationalities represented in our operations worldwide\*1\*2.



\*1 Personnel exchanges are based on the scale of the number of temporary assignments as of July 1, 2024, including those from overseas offices to Japan and from Japan to overseas offices.

\*2 Employee nationalities are based on employee data for offices in Japan as of July 1, 2024, and for the five main overseas offices as of the end of June 2024.

Through these initiatives, we aim to cultivate an even stronger sense of unity across our locations in Japan and overseas by developing and promoting a cohesive D&I philosophy.

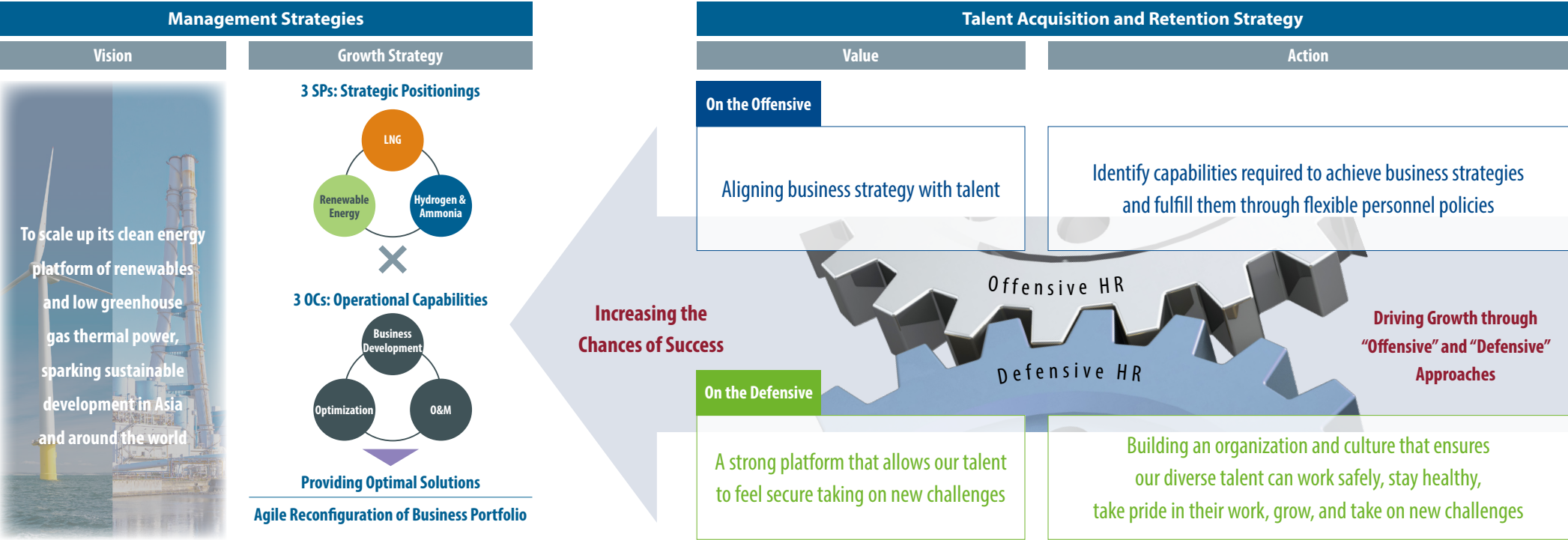
#### External Recognition



JERA was awarded “Best Workplace,” the highest among four levels of the D&I AWARD 2023, presented by JobRainbow, Inc., to companies committed to diversity and inclusion. Furthermore, we were recognized externally for our initiatives related to LGBTQ+ issues, receiving a “Gold” award in FY2023 from the PRIDE Index, which evaluates corporate initiatives in this area.

# Our People

## Management Strategies and Talent Acquisition and Retention Strategy



### Driving Growth through "Offensive" and "Defensive" Human Resources



Taisuke Yokota  
Senior Managing Executive Officer  
Chief Human Resources Officer (CHRO)

At JERA, the Human Resources (hereafter “HR”) division upholds the policy of being a world-class company that ensures the well-being of both our employees and their families. We believe that to genuinely enhance employee engagement, we must focus not only on our employees but also on their families. With this commitment, we aim to drive corporate growth and value creation through both “offensive” and “defensive” approaches to talent management.

By “offensive,” we mean serving as a business partner to the operational divisions, ensuring that the quality and quantity of talent, which is the platform of our competitiveness, aligns with our business strategies across the group. Our new growth strategy for realizing our vision involves delivering optimal solutions by combining three Strategic Positionings (SPs) with three Operational Capabilities (OCs) and calls for agile adjustments to our business portfolio to adapt to changes in the business environment. The HR division will identify the skills needed to achieve our business goals and implement agile HR strategies to enhance our likelihood of success.

On the other hand, going on the “defensive” is not just about enhancing the routine administrative operations of our globally expanding group but also about establishing a solid foundation where our diverse talent can work and feel secure in taking on new challenges. We are committed to promoting health management to ensure a safe and healthy workplace and creating an environment where every employee can thrive in their own way. By creating a safe and healthy work environment and fostering a culture that encourages people to take on challenges, we believe that each employee will take pride and initiative in their work, enabling the team to maximize its potential. Talent is at the heart of our group’s growth. The HR division will shape an environment where employees can enhance their abilities, feel their growth, and work proactively with a sense of purpose.

## Our People

### Offensive Approach to Talent Acquisition and Retention Strategy

#### ► Aligning Business Strategy with Talent

Our talent acquisition and retention strategy begins with defining and understanding the capabilities required, both qualitatively and quantitatively, to achieve our business strategies. Leveraging job-based talent management, we deliver a variety of solutions to flexibly meet the required capabilities. By implementing a cycle that optimizes our talent portfolio through these efforts, we aim to enhance the likelihood of achieving our business strategies, even as the group's business environment continues to evolve.

#### Identifying Capabilities

We define capabilities by thoroughly analyzing each division's operations and classifying the expected roles and required skills by level. We then assess the capabilities necessary to achieve our business strategies, evaluate and compare them against the existing talent's capabilities, and identify required capabilities both qualitatively and quantitatively.

##### Capabilities for Achieving Business Strategies

###### Envisioned Future

		Lv5	Lv4	Lv x
Professional ability	Building Xxx	20	50	130
	Xxx Operations	30	30	120
	Xxx	40	30	200
General ability	Accounting	20	30	150
	Analytics	30	40	180
	Xxx	15	20	140

###### Gap

		Lv5	Lv4	Lv x
Professional ability	Building Xxx	▲15	▲10	20
	Xxx Operations	▲20	▲15	10
	Xxx	▲35	▲15	0
General ability	Accounting	▲15	▲20	▲10
	Analytics	▲25	▲10	20
	Xxx	▲5	0	10

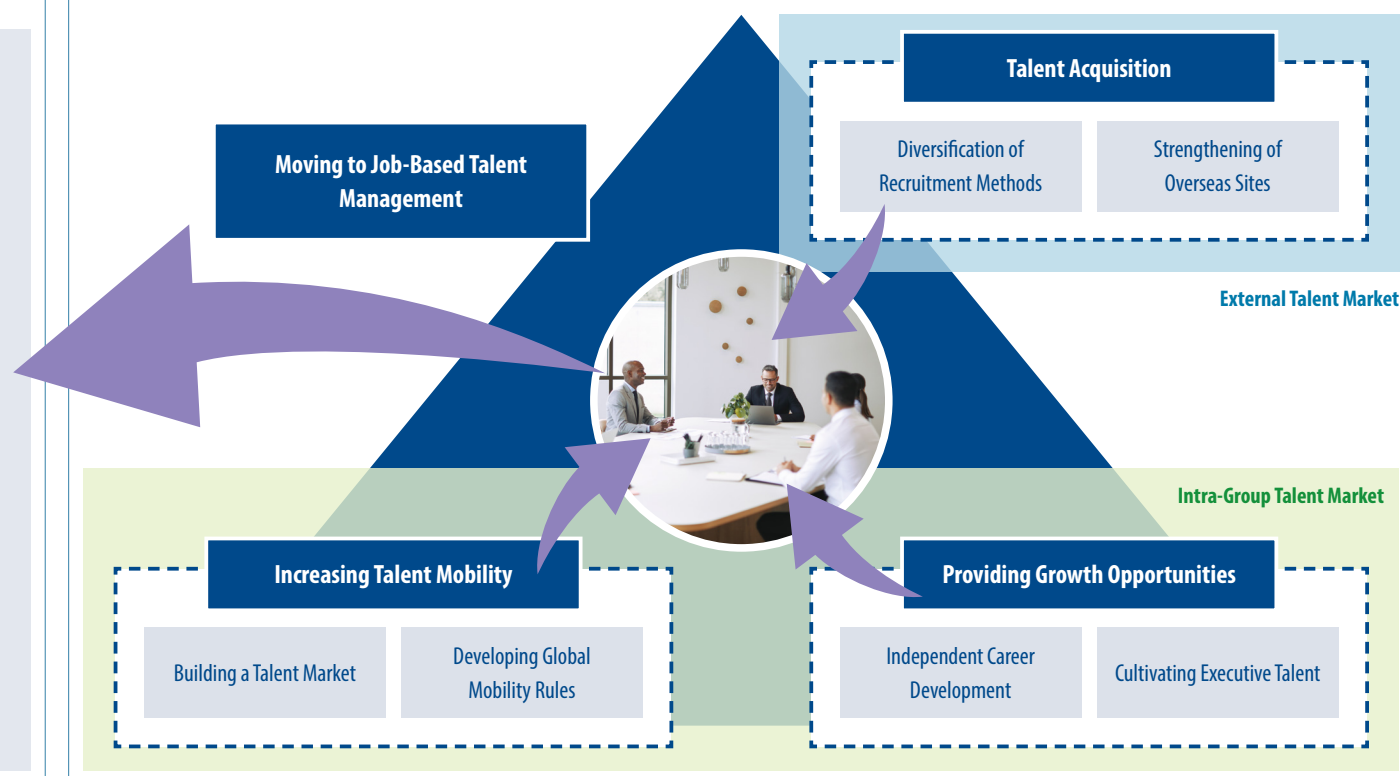
##### Capabilities of Current Talent

###### Current Status (Issues)

		Lv5	Lv4	Lv x
Professional ability	Building Xxx	20	50	130
	Xxx Operations	30	30	120
	Xxx	40	30	200
General ability	Accounting	5	10	140
	Analytics	5	30	200
	Xxx	10	20	150

#### Fulfilling Needs with Flexible HR Efforts

After identifying the required capabilities, we will fulfill them dynamically through three core HR measures: talent acquisition, increasing talent mobility, and providing growth opportunities. We are also shifting toward job-based talent management, which serves as a platform of these efforts.



## Moving to Job-Based Talent Management

Acquiring top talent capable of fulfilling the capabilities required to enhance the likelihood of achieving our business strategies is one of our key challenges. The competition for talent is intensifying not only on a global scale but also within Japan, where societal issues such as rapid population aging and labor market rigidity are significantly impacting the talent acquisition landscape. In addition, on an individual level, the diversification of lifestyles and working styles, as well as changing personal values and career awareness, have made talent management increasingly complex and multifaceted.

In response to these circumstances, we are shifting toward a job-based talent management system to both maintain and improve our high level of market competitiveness and boost employee engagement.



## Shift to Job-Based Talent Management

Our job-based talent management considers the unique characteristics of the Japanese labor market, such as limited talent mobility and the potential-focused hiring of new graduates, and structures the entire employee life cycle—including compensation levels, employment types, recruitment processes, performance evaluations, and career development—based on the job itself rather than seniority or individual attributes. As of April 2024, we have applied a job-based compensation system to all management positions.

### Job-Based Management System

	Japanese Market	Job-Based Talent Management	Global Market
Employment Practices	Lifetime employment Obligation to employ until age 65	Lifetime employment Obligation to employ until age 65	Career changes for upward mobility Termination due to performance
Hires	Employment based on potential	New Graduates: Hired based on potential Mid-Career: Hired for specific positions	Hired for specific positions
Evaluation and Promotion	Emphasis on internal fairness (Pay for person)	Manager: Linked to a specific position (Pay for job) General Employee: Reflects ability development (Pay for person)	Linked to a specific position (Pay for job)
Compensation	Non-market related	Industry-specific market alignment	Role-specific market alignment
Career Development	Company-initiated	Individual-driven	Individual-driven

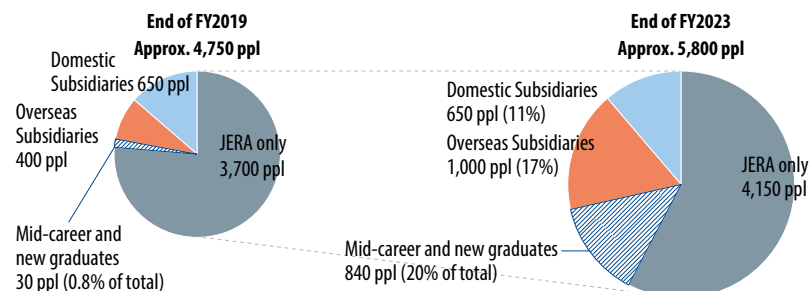
## Talent Acquisition

We are focused on acquiring top talent across the entire group to qualitatively and quantitatively meet the capabilities required to achieve our business strategies. In mid-career hiring, we actively implement position-specific recruitment that aligns with business needs, as well as referral hiring. For new graduate recruitment, which we fully launched in 2022, we are working to secure talent with specialized skills and international perspectives by introducing course-specific hiring and offering October start dates for overseas university graduates. In addition, at our overseas sites (overseas subsidiaries), we are strengthening systems by expanding local hiring and business acquisitions.

Diversification of Recruitment Methods		Strengthening of Overseas Sites
Mid-Career Hires	New Graduates	
<ul style="list-style-type: none"> <li>Hiring for positions that match business needs</li> <li>Use of referral hiring</li> </ul>	<ul style="list-style-type: none"> <li>Course-specific hiring</li> <li>International students from overseas universities joining the company in October</li> </ul>	<ul style="list-style-type: none"> <li>Expand local hiring</li> <li>Progress in business acquisitions</li> </ul>

Through these efforts, our consolidated workforce increased by approximately 1,000 employees compared with FY2019\*. Of these, 600 were hired at our overseas sites. In addition, at JERA itself, the proportion of mid-career and new graduate hires has grown to about 20%. Our focus will continue to be on securing outstanding talent to reach our business strategy objectives, generate new value, and sustainably enhance corporate value.

### Employee Composition of Headquarters and Branch Offices



\*FY2019: Established management and organizational structure by integrating existing thermal power generation businesses from TEPCO Fuel & Power Inc. and Chubu Electric Power Co., Inc.



## Our People

### Improving Talent Mobility

We are working to improve talent mobility across the group to achieve agile alignment between business strategies and talent and to optimize our talent portfolio. We aim to create a portfolio that maximizes the value of our talent by **building a platform that enables the seamless discovery and matching of talent both within and outside the group (intra-group human resources market)** and by **developing a system (global mobility rules) for smooth placement**, without being constrained by recruitment locations.

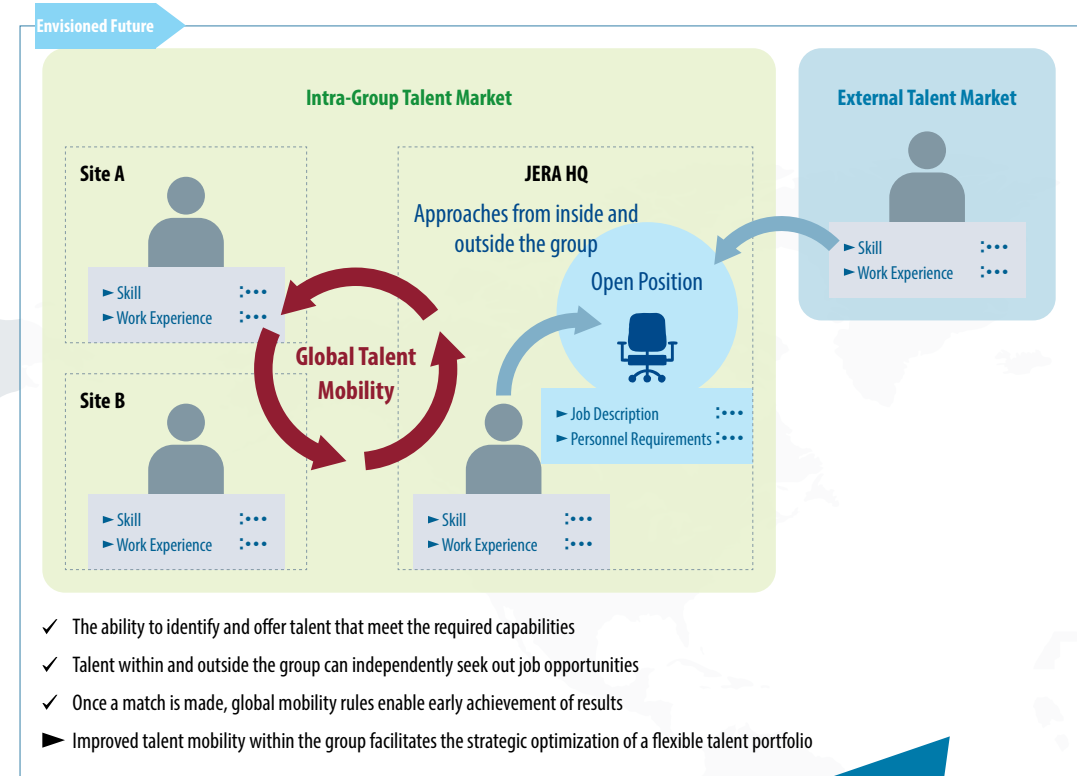
### Building a Market for Talent within the Group

We are developing a platform that visualizes information on all the talent within the group, enabling the discovery and offering of individuals who possess the capabilities needed to execute the strategies of each business.

We are also working on establishing a system that encourages both internal and external talent to actively pursue job opportunities by sharing enticing job information in the external talent market. We aim to build a talent market that enables mutual growth based on an equal relationship between the company and our employees.

### Developing Global Mobility Rules

As part of our effort to facilitate talent and job matching within the group's talent market, we are developing global mobility rules that systematically organize the placement process, ensuring a smooth transition and early success in new roles. By establishing guidelines that encompass not just mobility between regions and sites but also rules based on the job's purpose, duration, and content, we seek to promote greater talent mobility.



#### Current Status (Issues)

- Understanding what kinds of talent and jobs exist, especially at overseas sites
- Talent mobility between locations is predominantly from HQ to other sites, with minimal movement elsewhere
- ▶ A talent portfolio that maximizes talent value in alignment with business strategy has yet to be developed

## Our People

### Providing Growth Opportunities

#### Talent Development Policy

The JERA Group considers every employee an essential asset and conducts talent development as described below.

#### Talent Development Objectives

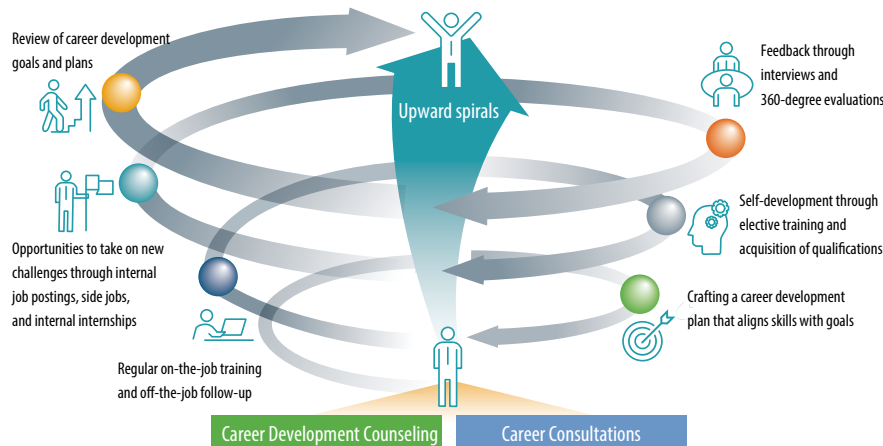
- 1 To allow employees to grow and live their lives to the fullest
- 2 To enhance the JERA Group's corporate value and to help us achieve our mission and vision through employee growth

We actively support the growth of all JERA Group employees, including those working overseas.

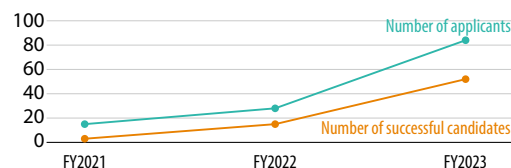
### Independent Career Development

#### ► Supporting the Career Development of Every Employee

We support the independent career development of our employees based on our concept of talent management, which emphasizes employee-driven career development and the ability to choose one's own job. To help employees bridge the gap between their career goals and their current abilities, we provide a comprehensive environment that includes career development planning, career development discussions, and a diverse range of training programs aimed at skill enhancement skills. We also offer internal job postings, opportunities for side jobs, and regular reviews of career development plans, all designed to empower employees to achieve their personal and professional aspirations.



We are steadily fostering a culture where employees take ownership of their careers, as demonstrated by the growing number of transfers each year through the internal job posting system, which offers employees the chance to choose their career path.



Our training system supports skill development from multiple angles to support independent career development. Currently, there are roughly 70 training programs with 130 different lectures to choose from, allowing employees to choose their courses according to their envisioned career paths.

#### ► Fostering Global Talent

To meet the demands of increasing globalization and the growing global mindset among our employees, we have established various programs, including opportunities for language acquisition, study abroad programs, and short-term training at overseas sites. For new graduates joining the company in 2024, we have introduced a global start-up training program aimed at fostering the commitment and drive needed to become global talent. In response to the rising number of non-Japanese employees, we have also implemented Japanese-language training for non-native speakers, as well as online training conducted in English.

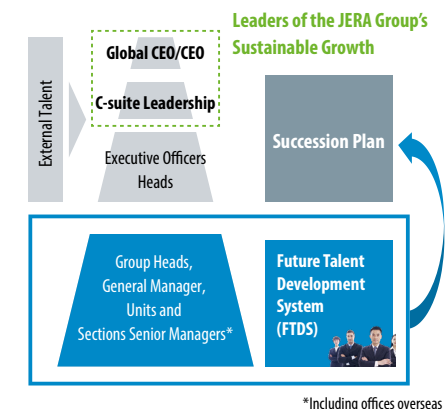
We are also focused on enhancing talent exchange within the group. Starting in July 2023, we launched a talent exchange program with Aboitiz Power in the Philippines, where engineers are dispatched between the two companies to enhance their technical skills.

<b>Study Abroad Programs in Japan and Overseas</b> Earning an MBA or other postgraduate degree	<b>Language Acquisition</b> Online English conversation courses and Japanese-language training for non-Japanese employees	Talent exchange with Aboitiz Power
<b>Global Start-up Training</b> Instilling commitment and ambition in new employees to become global professionals	<b>Short-Term Overseas Training</b> Engaging in overseas operations for several months	

### Cultivating Executive Talent

We are also engaged in the systematic development of management talent. Our approach to cultivating management talent consists of two key components: the succession plan and the Future Talent Development System (FTDS).

The FTDS is a management talent development program designed to foster the necessary capabilities for management roles from an early stage. It emphasizes tough assignments and external training tailored to individual traits from early in one's career, encouraging the early acquisition of essential management skills. The program was officially launched in August 2023.



## Our People

### Defensive Approach to Talent Acquisition and Retention Strategy

#### ► A Strong Platform That Allows Our Talent to Feel Secure Taking on New Challenges

Through efforts such as health management, improving workplace environments, and encouraging flexible work styles, we are building an organization and culture where all of our diverse talent, regardless of nationality or gender, can work safely, stay healthy, take pride in their work, and grow sustainably. We aim to create an environment where each individual can take on challenges with greater autonomy and fully realize their potential.

### Promoting Health Management

#### ► Creating a Platform That Allows Our Talent to Stay Healthy and Feel Secure Taking on New Challenges

We believe that maintaining and improving employee health contributes to corporate value and are promoting health management activities aimed at creating a strong platform that allows our talent to stay healthy and feel secure taking on new challenges. Recognized for our efforts, such as reducing overtime, encouraging employees to take leave, and hosting health-related events, we have been recognized for the 2024 Certified KENKO Investment for Health Outstanding Organizations Recognition Program in the large companies category. We plan to further develop our health management efforts by considering systems that leverage health data to support well-being.



#### ► Establishment of the JERA Health Insurance Association

In April 2024, the JERA Health Insurance Association was established. In our commitment to providing high-quality health support for employees, we took the opportunity of this establishment to replace the annual health checkups with comprehensive Ningeng Dock health exams, which employees can now receive free of charge. These exams are available at approximately 400 medical institutions across the country contracted by the JERA Health Insurance Association.



#### ► Promoting Health Management Across the Group

We are also working to promote health management throughout the Group. At each of our overseas sites, we partner with local clinics to provide prompt and appropriate medical services and introduce security services to create a safe working environment for our employees. We will continue to build an organization and culture where all Group employees can take on challenges in good health and with peace of mind.

### Safe and Secure Work Environment

#### ► Uniform Renewal

We introduced new uniforms in May 2024. In addition to safety, the new design features a more inclusive silhouette, ensuring comfort for all employees, along with improved pocket shapes and sizes, enhancing usability on the job.

In addition, as part of the rollout, we have implemented a recycling and reuse system for used uniforms to reduce environmental impact.



### Flexible Approaches to Work

#### ► Creating an Accepting and Understanding Work Environment

Amid the diversification of perspectives on work and lifestyle, we are establishing an environment that supports the diverse lifestyles and life stages of our employees and their families, allowing them to maximize their abilities.

Our efforts encompass a variety of flexible work options. We offer hybrid remote work and full-time remote work for specific situations, such as childcare, caregiving, or to prevent being transferred away from one's family. In addition, we provide telework or leave options for employees who are accompanying a spouse on overseas assignments. Starting in FY2024, we will introduce a remote work system specifically designed for non-Japanese employees, enabling them to work from their home countries.

#### Choose How to Work

- Hybrid system that leverages the benefits of both the office and remote work
- Full-time remote work is possible under special circumstances



#### Choose When to Work

- Flexi-time system (7:00–22:00)
- No core period



#### Choose Where to Work

- Work from any site as long as security is not an issue



### Fostering a Culture of Mutual Recognition and Praise

#### ► Commendation System

Our commendation system fosters a culture of mutual recognition and praise in order to motivate employees to take on new challenges and create an organization that can maximize performance.

The number of awards in FY2023 increased to 885, almost double that in FY2022, due to factors that included the review of award amounts in response to employee feedback.

#### Purpose of the Commendation System

- 1 To recognize a wider range of behaviors and mindsets
- 2 To boost employee motivation
- 3 To cultivate a culture of encouragement



# Human Rights

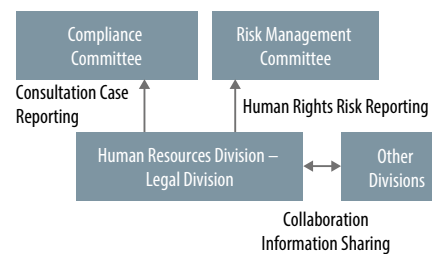
## Fundamental Approach

We strongly recognize the importance of promoting human rights efforts for us to meet our responsibilities of maintaining and expanding a value chain that supports Japan's energy and helps solve the world's energy issues. We also believe that employees can only reach their full potential in a welcoming work environment free from discrimination and harassment. We are committed to acting with integrity and respect for human rights based on the highest ethical sense to fulfill our mission as a global company.

## JERA Group Human Rights Policy and Structure

In April 2022, we established the JERA Group Human Rights Policy. This policy was founded in accordance with international rules regarding human rights, such as the UN's Universal Declaration of Human Rights and Guiding Principles on Business and Human Rights. We recognize the potential impact of our activities on the human rights of stakeholders, including customers and local communities, and this policy mandates a sustained effort to avoid complicity in any human rights violations. In accordance with this policy, we undertake the identification, prevention, mitigation, monitoring, and rectification of human rights risks and report our findings at internal committee meetings. Information regarding this policy and our human rights initiatives is published on our website and other platforms as we continue to engage in open dialogue with our stakeholders.

### Management Committee (Leadership Panel)



## Human Rights Education and Training

In August 2023, we conducted human rights training for all employees. Through such educational efforts, we strive to create a welcoming work environment free from discrimination and harassment and raise awareness of human rights to the level required for global business development. In December 2023, we invited instructors from outside the company to hold a seminar on human rights, which was attended by approximately 400 managers. The seminar focused on harassment-free communication in the workplace, a human rights issue for which there is a strong need, and included case examples. We aim to continue these educational and training activities to enhance and establish a deeper understanding of human rights within the organization.

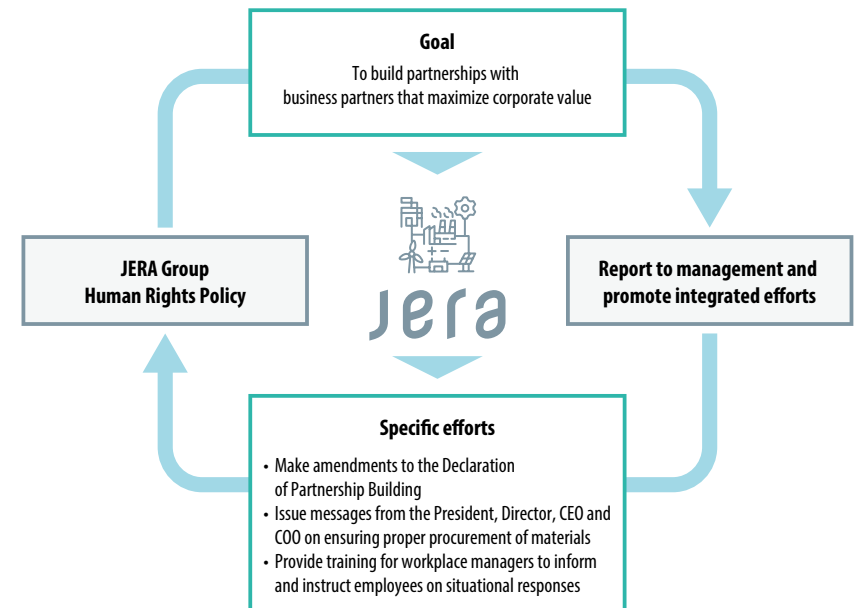
## Relief Mechanisms for Human Rights and Other Issues

We have established internal whistleblower hotlines to quickly detect and resolve human rights violations concerning the JERA Group and maintain a safe and comfortable work environment for our employees. We are dedicated to preventing any inappropriate behavior that infringes upon human rights, including sexual harassment and abuse of power. We respond with careful attention to all matters for which consultations are sought and take appropriate corrective action while ensuring the complete anonymity of the whistleblower. We also work to prevent the recurrence of inappropriate behavior through the types of education and training described above.

## Promotion of Human Rights Due Diligence (DD) and the Establishment and Operation of a Human Rights Structure

With the aim of promoting respect for human rights across our entire supply chain, we are working to establish a human rights due diligence framework that is based on the UN Guiding Principles on Business and Human Rights, the OECD Due Diligence Guidance for Responsible Business Conduct, and Japan's Guidelines on Respecting Human Rights in Responsible Supply Chains. In FY2023, we identified and evaluated human rights risks through a survey of workplace compliance managers and promotion leaders. In addition, to promote mutually beneficial relationships within the supply chain, we continue to implement fair trade initiatives for small and medium-sized companies aimed at encouraging our business partners to improve the working environments for their employees. Under the JERA Group Human Rights Policy, we are committed to regularly reviewing human rights issues and continuously working to resolve and rectify them as we move forward.

### Examples of Fair Trade Practices to Reduce Human Rights Risks





# Coexistence and Shared Prosperity with Local Communities

## Fundamental Approach

With a strong presence around the globe, JERA's mission is to offer cutting-edge energy solutions and contribute to solving global energy issues. We believe that the following initiatives are crucial to ensure smooth business development and operations in each country and region.

- Build strong, trusting relationships with local governments and communities in each region to gain the understanding and cooperation of local residents
- Collaborate with residents to resolve issues in each region
- Work proactively to solve the problems facing society as a whole

## Realizing a More Sustainable Society through Our Social Contribution Activity Policy

We established our Social Contribution Activity Policy in 2021 in order to strengthen these efforts. Our social contribution activities respect the cultures, customs, nature, history, and other characteristics of individual countries and regions in line with this policy. At the same time, we will expand global collaboration while contributing to society and community development through activities that leverage the strengths of the entire JERA Group.

### Social Contribution Activity Policy (Excerpt)

<b>Purpose of Activities</b>	The purpose of our social contribution is the creation of a continuous virtuous cycle in which trust between JERA and our stakeholders contributes to the realization of a sustainable society, which in turn enhances corporate value.	
<b>Areas of Focus</b>	<b>Coexisting with the Environment</b>	We will contribute to better conservation of the global environment by working to reduce the environmental burden of our business activities together with measures such as promoting greening and environmental protection.
	<b>Educating the Next Generation</b>	We will pass on the skills and expertise gained through business operations to the next generation and contribute to the education of individuals who can lead the future of energy globally.
	<b>Resolving Community Issues</b>	We will help resolve the many issues facing countries and regions where we do business, including increasing disaster preparedness, creating jobs, and reducing the number of communities without electricity.



Social Contribution Activity Policy

<https://www.jera.co.jp/en/sustainability/contribution>

## Regional Response System

To strengthen relationships with local communities and other stakeholders, we have established a system for strategic activities, including the formation of the Stakeholder Strategy Conference under the Chief Business Support & Solutions Officer (CBSSO).

In areas surrounding our domestic thermal power plants, the heads of the stations take the lead in building trust with local communities through regular collaborative activities. For wider areas spanning multiple prefectures, the managing executive officer and branch heads are responsible for carrying out these initiatives. Additionally, for new projects such as expansions, replacements, and transitions to hydrogen & ammonia, as well as offshore wind power initiatives aimed at achieving a decarbonized society, the Power Plant Regional Affairs Group leads deeper collaborations with local communities. We are constructing an integrated response framework and striving to gain an understanding of local communities through detailed explanations of our business activities, as well as enhancing trust by solving issues in the local community.

Going forward, we will collaborate with our overseas subsidiaries to share our efforts to resolve local issues in each country and region and explore the global expansion of our unique activities aimed at coexistence and prosperity with society.

### KPI

- Identify regional challenges and work together with local communities to resolve issues
- Coordinate and expand local efforts globally to resolve regional challenges

## Featured

### Collaboration with Local Communities

Each thermal power plant leverages its unique strengths to foster collaboration with local communities.

During the renovation of a tunnel on the premises of the Hirono Thermal Power Station in Fukushima Prefecture, students from the local Futaba Future School and cooperating companies participated in the creation of a mural to raise awareness of safety and disaster prevention. In addition, Kawasaki Thermal Power Station has been involved with the community, such as becoming a filming location for a night photography tour of Kawasaki's factories, organized by the Kawasaki-City Industrial Tourist Promotion Council.

We will continue to actively engage in activities in collaboration with the local communities.



## Coexistence and Shared Prosperity with Local Communities

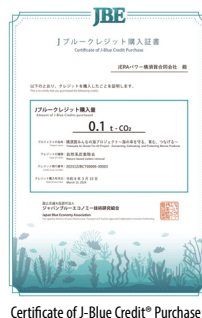
### Progress on Specific Initiatives

#### Coexisting with the Environment

##### Blue Carbon Initiatives

We participate in Blue Carbon initiatives in Yokosuka City, which is home to some of our power plants, collaborating with local stakeholders to restore and conserve seaweed beds in the surrounding sea area.

In March 2024, through a subsidiary, we purchased the CO<sub>2</sub> absorption capacity of seaweed beds off the coast of Nagai, Yokosuka City, which is certified as J Blue Credit® by the Japan Blue Economy Association.



Certificate of J-Blue Credit® Purchase

##### Cleanup and Environmental Beautification Activities

As a token of our appreciation to local residents, we collaborate with partner companies and local governments at our thermal power plants and other facilities to carry out cleaning and various environmental beautification activities in surrounding areas.

At the Yokosuka Thermal Power Station, which began operation in FY2023, we also conducted beach cleanup activities in the neighborhood in cooperation with local residents, power plant employees, and their families. In addition, from 2020 onward, we have conducted beach cleanup activities in Akita Prefecture in cooperation with local residents and the players and staff of the Aranmare women's basketball team, of which JERA is an official sponsor.



#### Educating the Next Generation

##### Private Training for Teachers

At JERA, we offer power plant tours for children and conduct SDGs classes for high school students to nurture young people who will lead the next generation. In addition to these activities, starting in FY2023, we launched a new initiative offering training sessions for elementary and junior high school teachers. After a tour of the power plant and a lecture on the global energy situation, participants deepen their understanding through discussions on future energy use.

We are committed to continuing activities aimed at next-generation training and development.



##### Continuing Our Scholarship Program

In December 2020, JERA established the JERA Asia Scholarship program for international students from Asian countries to study at Japanese universities and graduate schools to contribute to the education of the next generation who will lead economic growth in Asia. Since FY2021, we have provided scholarships to students from Asian countries studying at the International University of Japan, which has long been involved in developing global human resources, with a total of 15 students receiving scholarships to date.

#### Resolving Community Issues

##### Community Development Using “Locally Produced Energy for Local Consumption and Local Disaster Prevention”

We are promoting “Locally Produced Energy for Local Consumption and Local Disaster Prevention®,” in which locally produced energy using local resources is utilized for disaster prevention. In the event of an emergency, we cooperate with each local government to help create safe and secure towns.

In Atsuma Town, which sustained damage in the Hokkaido East Iburi Earthquake, we have continued to provide support for energy management efforts by installing renewable energy power generation equipment and battery storage in public facilities.

##### Overseas/Affiliate Initiatives and Contributions to SDGs

TeaM Energy Corporation, a JERA affiliate (50% owned by JERA and 50% by Marubeni Corporation), has long been involved in various initiatives in the Philippines through the nonprofit organization TeaM Energy Foundation, Inc. These efforts include poverty alleviation, environmental conservation, educational and medical assistance, and support for drug eradication, primarily through the provision of electricity to underserved areas and households.

In addition, our affiliate Reliance Bangladesh LNG & Power (49% owned by JERA and 51% by Reliance Power) has been making contributions to communities based on local needs, such as donating equipment to elementary schools in the area, providing courses on protecting the environment and promoting employment, and offering free health checkups.



## Fundamental Approach

### Safety Philosophy

Safety is the foundation of our business and the source of our corporate value.  
We give the highest priority to safety in all our business activities.

### JERA Safety Vision

Every JERA employee and associate can enjoy a physically and mentally healthy  
and safe workplace and go home satisfied.

### Safety: The Highest Priority in Everything We Do

Our mission is to provide cutting-edge solutions to the world's energy issues. Power generation and fuel facilities operate under high pressures and temperatures, handling many hazardous materials. It is essential to eliminate accidents among all personnel involved in facility operation and maintenance and deliver energy in a safe and stable manner.

That is why we operate on the basic premise of safety first throughout our supply chains, from upstream fuel procurement to electricity sales, in accordance with our safety philosophy.

### Safety Activities Reaching All Involved in Our Operations

Our projects cannot be implemented solely by our employees. They require the collaboration of group and partner companies in the workplace, which is why our safety activities cover everyone involved in the JERA Group's operations. As the business domain grows, we intend to expand our business areas including those overseas, all while giving the highest priority to safety.



### Working with Group Companies and Partners to Foster an Integrated Safety Culture

Realizing our safety goals means making sure everyone involved in the JERA Group's operations is aware of safety as the highest priority, including at our group companies and business partners.

The JERA Safety Vision was established to give everyone, regardless of nationality, race, or affiliation, the ability to talk about safety goals using a common language. We are also developing activities to build a culture of safety that brings JERA employees together with everyone from group companies and partner companies.

#### In Pursuit of Zero Accidents



**Kazuyuki Arita**  
Executive Officer, Head of the General  
Affairs Division

We do business in many countries and regions, and our workplaces are staffed by people of many different nationalities who bring diverse customs and ways of thinking.

We are also exploring new technologies, such as the fuel conversion to hydrogen & ammonia. As the workplace environment undergoes significant changes, it might be difficult to achieve zero accidents across all our business sites by simply maintaining the status quo in our safety activities.

Therefore, we are committed to further refining the safety management and technologies we have developed over many years in Japan, while also incorporating global safety management techniques and cutting-edge safety technologies to enhance their effectiveness. At the same time, we are working to foster a safety culture where each employee actively engages in raising their own safety awareness and ensuring both their own safety and that of their colleagues. Through these activities, we aim to reduce the number of accidents to zero and earn people's trust as a dependable member of the community.

## Safety

### Our Safety Action Strategy

#### A Safety Action Strategy to Implement Our Safety Philosophy

In 2021, we underwent a safety activity assessment by a third party and received recommendations focusing on leadership, organizational structure, and business operations as key areas for improvement to implement our safety philosophy.

To reflect these recommendations, we formulated our Safety Action Strategy in FY2022 to set medium-term action items for our group's safety and will formulate annual action plans based on this strategy.

Our Safety Action Strategy for FY2023–25	Major FY2023 Initiatives
<b>Leadership</b> Continuous leadership from management and raising individual safety awareness	<ul style="list-style-type: none"> <li>Leadership by example from management to promulgate our Safety Philosophy and Safety Vision</li> <li>Heightened safety awareness via increased opportunities for participation in safety activities</li> </ul>
<b>Organizational System</b> Constructing a robust management system to lead our safety efforts	<ul style="list-style-type: none"> <li>Building an integrated system to promote safety</li> <li>Establishing operational procedures for the effective implementation of the Plan-Do-Check-Act (PDCA) cycle</li> </ul>
<b>Measures</b> Effective safety activities to address changes in the environment	<ul style="list-style-type: none"> <li>Effective safety activities to achieve safe, zero-accident workplaces</li> <li>Improved support in all divisions to promote safety</li> </ul>

### Featured

#### Annual Safety Awards

We hold a Safety Awards Ceremony annually for the people working at our power plants and other areas in our group.

During the 2023 awards ceremony, a total of 47 organizations and 32 individuals from sites in Japan and overseas were honored, including the Mekong Energy's Phu My 2.2 Power Plant in Vietnam and TeM Energy in the Philippines.

Many of the award winners commented that learning about the initiatives of other locations was helpful and motivating and appreciated that the awards led to the sharing of safety activities and culture.



### Safety Promotion System

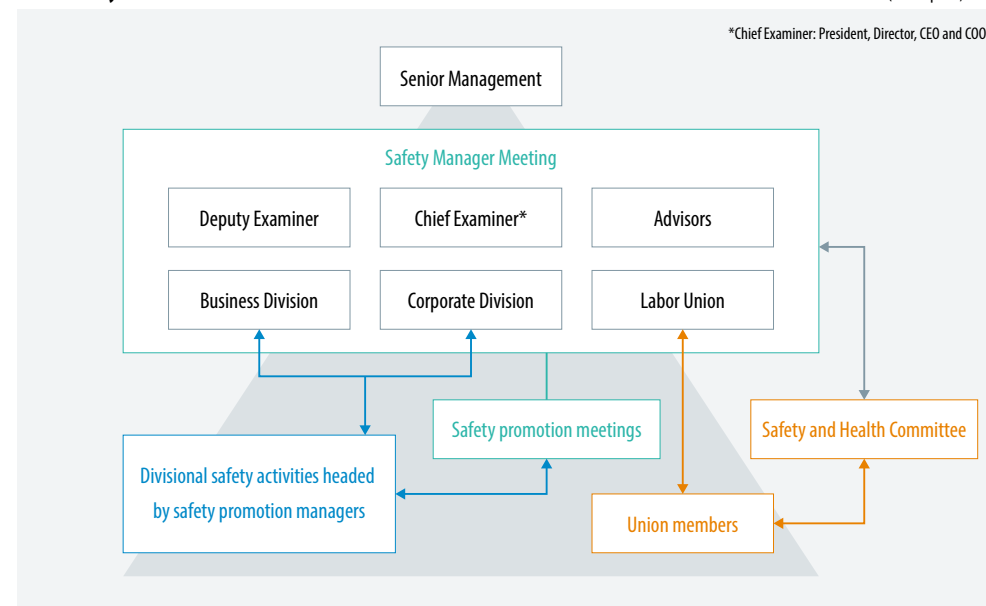
#### Establishment of a Safety Promotion System with Management-Level Participation

To advance company-wide safety initiatives and reinforce our safety promotion system, we established the Safety Manager Meeting, which is chaired by the President, Director, CEO and COO and attended by safety promotion leaders from each division.

As the number of our overseas subsidiaries increases, we plan to establish a group-wide safety promotion system that includes affiliated companies.

#### JERA's Safety Promotion Structure

(as of April 1, 2024)



#### Pragmatic Discussions at the Safety Manager Meeting

The safety manager meeting includes the labor union chairperson representing employees and external experts who offer third-party perspectives on the company's safety measures.

In FY2023, eight sessions focused on specific measures to achieve zero accidents. The discussions assessed the thoroughness of the investigation into the fatal accident that occurred during the fiscal year and evaluated the effectiveness of preventive measures. They also highlighted the key steps necessary to ensure that individuals can consistently prioritize safety in emergency situations.



## Accident Prevention Efforts

### Expanding Integrated Safety Activities in Japan and Abroad to Ensure Zero Accidents in the Workplace

In Japan, our safety practices include daily inspections of thermal power plants to identify any potential hazards and to ensure safety through maintenance and other measures. We also check each work process and operational procedure of operators and workers, conducting operations only when all necessary safety measures are in place.

At our overseas power plants, we also implement safety activities tailored to each workplace while complying with the safety laws and regulations of each country and region.

We will continue to share safety initiatives from these diverse workplaces internally to establish common codes of conduct for the entire JERA Group.



Safety patrol at Mekong Energy's Phu My 2.2 Power Plant (Vietnam)

### Facility Safety Measures for Emergency Readiness

We must be able to bring facilities back online quickly, even in the event of natural disasters or other major emergencies. We, therefore, manage our thermal power plants appropriately in accordance with all relevant laws and regulations, and conduct drills and training in cooperation with local communities to be fully prepared for any emergencies.

### Earthquake Countermeasures

We design and build new thermal power plants in keeping with all relevant earthquake laws and regulations, as well as the Japan Electric Association Code (JEAC), and conduct periodic facility inspections after completing construction to ensure earthquake resistance. In addition, we take into account any earthquakes announced by official government bodies such as the Cabinet Office, evaluating the seismic resistance of key facilities and implementing measures such as seismic reinforcement to avoid long-term shutdowns due to damage or destruction.

Whenever earthquake predictions or other new information becomes available, we will act on these insights to assess the adequacy of our current earthquake preparedness and implement any required measures.

## Safety Measures in LNG Handling

Our thermal power plants and LNG terminals handle vast quantities of LNG, so in preparation for the unlikely event of an LNG leakage, we implement safety measures based on the following three concepts: (1) leakage prevention, (2) early leakage detection, and (3) prevention of leakage expansion. We also make considerations for the handling of fire. For example, we adopted explosion-proof structures for electrical equipment surrounding LNG facilities and restricted the use of products that might cause fire by designating control zones.

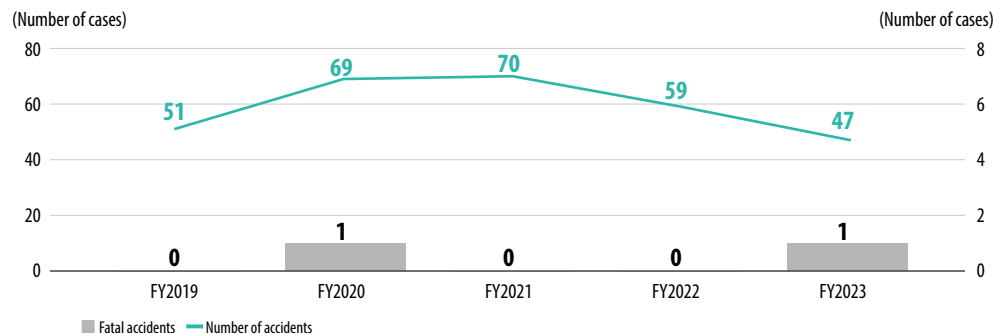
## Safety Record

### Safety Target (KPI): Zero fatalities

We have set “zero fatalities” as a KPI and are engaged in a range of activities to achieve this goal.

As a result, the total number of accidents at the principal entity of JERA in FY2023 was the lowest since the integration of thermal power generation operations in FY2019. However, one fatal accident occurred at a group company in Japan in FY2023.

### Number of Accidents\*



Note: The number of accidents includes employees of our company and our group's contractors and subcontractors, and includes accidents not accompanied by lost workdays.

## Thoroughly Implementing Measures to Prevent the Recurrence of Fatal Accidents

The day after the fatal accident, the President, Director, CEO and COO sent a message to the entire group emphasizing the importance of strict adherence to basic safety practices. The causes of the accident were investigated and preventive measures were reviewed at the safety manager meeting. These measures were subsequently implemented across all business sites.

We will continue to monitor the implementation and effectiveness of these preventive measures as we strive to develop even more robust solutions to prevent future accidents.

# Stakeholder Engagement

## Fundamental Approach

At JERA, our business activities are committed to proactive communication with our stakeholders, including customers, business partners, local communities, shareholder companies, and investors. To fulfill our social responsibilities, achieve sustainable growth, and enhance our corporate value over the medium to long term, we strive to build good relationships with our stakeholders that lead to effective partnerships.

In FY2023, we held discussions on the theme of stakeholder engagement at the Directors' Discussion, where we examined our relationships with diverse stakeholders at the director level to develop a shared understanding of key issues. Healthy two-way communication with our stakeholders will continue to inform and improve our operations and services. Furthermore, our efforts to disclose both financial and non-financial information in a timely, appropriate manner lead to proper assessment by our stakeholders in addition to helping us achieve sustainable growth and maximize our corporate value.



Multi-Stakeholder Policy

<https://www.jera.co.jp/sustainability/multistakeholder> (Japanese)

## Featured

### JERA Hosts Community Outreach Event "CHALLENGE FES HEKINAN"

On May 11, 2024, JERA held the CHALLENGE FES HEKINAN event at JERA park HEKINAN, a facility for community engagement adjacent to the Hekinan Thermal Power Station, to raise awareness about the start of fuel ammonia use at the power station. The event offered a variety of activities for parents and children, drawing in more than 2,600 attendees. We are committed to engaging with the local community and fostering stronger support for our business.



A snapshot from CHALLENGE FES HEKINAN

Main Stakeholders	Demands and Expectations	Initiatives	Outcomes
Customers	<ul style="list-style-type: none"> <li>Stable supply of electricity</li> <li>Supply of energy in pursuit of customer satisfaction</li> <li>Adoption and expansion of low-carbon and renewable energies</li> <li>Assistance in designing a future vision and strategy for green transformation (GX)</li> <li>Promotion of sustainability initiatives</li> </ul>	We deliver a stable energy supply to customers worldwide by building a platform undeterred by geopolitical factors and climate changes that can upset the supply-demand balance, leveraging cutting-edge value chain solutions spanning fuel procurement, power generation, and electric and gas sales. Our services promote transitioning to a decarbonized energy model based on sustainability-conscious business operations in order to meet customer expectations and earn their trust.	<ul style="list-style-type: none"> <li>Sales Activities</li> <li>Website</li> <li>Establishment of JERA Cross and delivery of 24/7 carbon-free electricity*</li> </ul> <p>*24/7 Carbon-free electricity refers to the supply of 100% of electricity demand comprised of CO<sub>2</sub> zero-emission power sources in accordance with the Ministry of Economy, Trade and Industry's Guidelines for Retail Sales of Electricity, along with environmental value provided through the use of non-fossil certificates.</p>
Business Partners	<ul style="list-style-type: none"> <li>Environmentally and socially responsible procurement and outsourcing</li> <li>Fair and equitable trade</li> <li>Stronger collaboration</li> </ul>	We promote environmentally and socially responsible procurement and partnership practices, which help us fulfill our corporate social responsibility and engage in fair, equitable trade with suppliers. Mutual understanding and close communication are the cornerstones of growth and development with our suppliers and partners.	<ul style="list-style-type: none"> <li>Contract compliance review</li> <li>Procurement policy briefings</li> <li>Domestic and international business collaborations</li> </ul>
Local Communities	<ul style="list-style-type: none"> <li>Environmentally responsible business operations</li> <li>Respect for human rights in local communities</li> <li>Local economic contribution</li> <li>Local job creation and skills development</li> </ul>	We build and maintain trust through active dialogue with local stakeholders to achieve sustainable growth alongside communities in Japan and abroad, including those that host our power plants. We are committed to meeting all our stakeholders' expectations through the development of society via social contributions and business activities that respect the nature, history, culture, and customs of each country and region in which we conduct business.	<ul style="list-style-type: none"> <li>Participation in local community events</li> <li>Cleanup and environmental beautification activities</li> <li>Next-generation development support</li> </ul>
Shareholder companies & Investors	<ul style="list-style-type: none"> <li>Enhanced corporate value</li> <li>Strengthened earning power</li> <li>Improved information disclosure level</li> </ul>	We are enhancing company reporting and seek to expand and deepen understanding through dialogue with capital market participants, including shareholder companies, investors, rating agencies, securities firms, and ESG evaluation providers. We will incorporate feedback from the capital markets throughout our management to inform managerial improvements as we continue to enhance corporate value.	<ul style="list-style-type: none"> <li>Shareholders meetings</li> <li>IR briefings</li> <li>One-on-one and group IR interviews</li> <li>Issuing of reports</li> <li>Issuing of integrated reports</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Creating a culture where every employee can thrive and realize their potential</li> <li>Attractive compensation base</li> <li>Career development support</li> <li>Promoting health management</li> <li>Elimination of discrimination and harassment</li> <li>More effective reporting systems</li> </ul>	We aim to create a culture where every employee can thrive and maximize their individual potential by embracing diversity, expressing individuality and cultivating a flat and innovative culture. In addition, we develop and provide an attractive compensation base and support independent career development based on our policy of "realizing the happiness of employees and their families." We also work to create a supportive environment where employees can feel confident about taking on new challenges, including through the promotion of health management initiatives. All of these initiatives are founded on our respect for human rights.	<ul style="list-style-type: none"> <li>Various events to activate flat communication between management and employees and between employees and each other</li> <li>Employee satisfaction surveys conducted annually since 2019</li> <li>Surpassed 2.5% of the legally mandated employment rate for persons with disabilities, gold certification in the PRIDE Index 2023, and "Best Workplace" certification in the D&amp;I AWARD 2023</li> <li>Compensation packages in line with market standards</li> <li>Expansion of internal recruitment (recruitment positions in FY2023 increased by about 4 times compared to the previous fiscal year)</li> <li>A safe working environment that empowers diverse talent</li> <li>Selection under the 2024 Certified Health &amp; Productivity Management Outstanding Organizations Recognition Program</li> <li>Harassment consultation service</li> </ul>

# Corporate Governance

## Fundamental Approach

Our fundamental corporate governance philosophy is to maintain a strong and sound management and financial structure trusted by the international energy market while ensuring an autonomous and independent corporate culture and a management system that allows us to make fair and prompt decisions.

Toward this end, we established our Corporate Governance Guidelines in October 2019 for building and implementing an appropriate corporate governance system and are continuously working to strengthen and enhance it.

## Issue Awareness

To achieve sustainable corporate growth and enhance corporate value over the medium to long term, companies must implement corporate governance to support accurate decision-making by management. The environment surrounding our company is changing rapidly amid the acceleration of global trends toward energy security and decarbonization. As this happens, we are expected to work on various governance issues with a sense of urgency through such means as facilitating a better functioning Board of Directors, empowering diverse talent, and enhancing initiatives to address issues related to sustainability.

We will strive to continuously enhance governance to earn the trust of our stakeholders.

 Corporate Governance Guidelines  
<https://www.jera.co.jp/en/sustainability/governance/about>

\*These guidelines set out our fundamental approach to and system for our corporate governance and serve as a code of conduct for our officers in pursuit of sustainable growth and enhancement of corporate value.

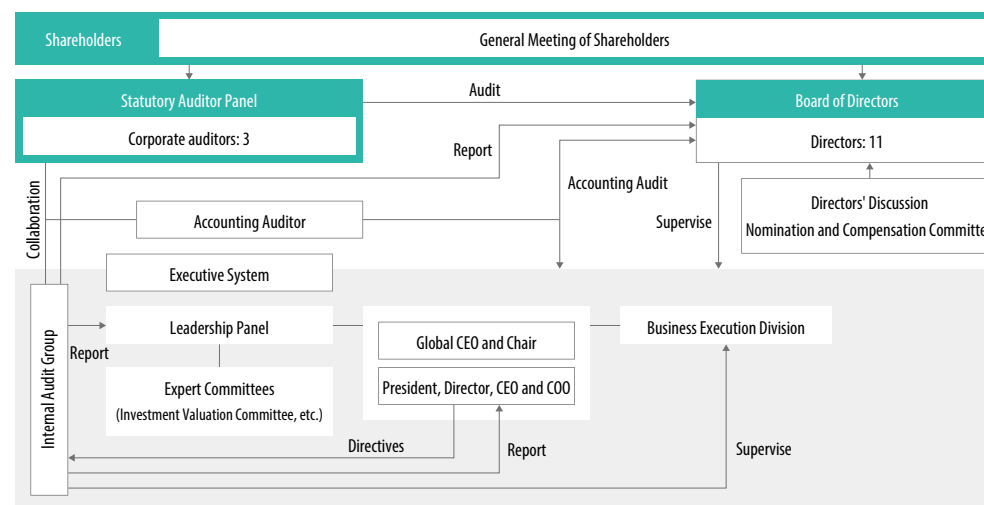
## Governance System

In order to expand business throughout the world in a wide range of fields, the Board of Directors—consisting of directors from JERA who are intimately familiar with our business and outside directors who bring a wealth of insights—make material business decisions and supervise the execution of business operations. Furthermore, JERA has corporate auditors as independent officers who are responsible for auditing the execution of the Directors' duties. In addition, we have established the Statutory Auditor Panel to ensure effective communication among the corporate auditors. This panel facilitates the exchange of opinions and provides relevant information on audits, management, business, and other related matters.

We have also adopted a system in which executive officers are responsible for business execution based on the decisions made by the board. This separates important decision-making and supervision of management from business execution and produces accurate, prompt decision-making and efficient business execution.

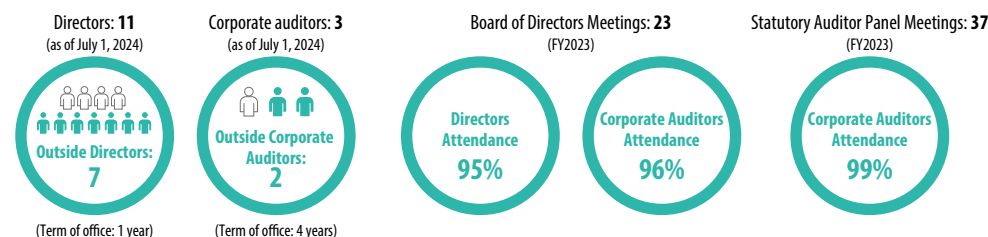
## Corporate Governance Structure

(as of July 1, 2024)



## Overview of Corporate Governance

### Organizational Design: Company with Corporate Auditors



## Roles, Responsibilities, and Diversity of the Board of Directors

The Board of Directors makes decisions on management targets, business strategies, and other important management matters based on applicable laws and regulations, our Articles of Incorporation, and our internal rules. It also supervises the execution of business operations.

In addition, we believe that in order to expand our business throughout the world in a wide range of fields, we will have to respond quickly and appropriately to the business environment and ensure the objectivity and soundness of our decisions. As such, in addition to directors who work for JERA, we hire independent outside directors to ensure diversity of knowledge, experience, and other attributes among the board. The Board of Directors, chaired by Yukio Kani, Global CEO and Chair, ensures that the proceedings are conducted smoothly and effectively.

## Key Deliberations of the Board of Directors

The Board of Directors generally convenes once a month and is responsible for formulating JERA's basic management policies, including our business strategies and plans. In addition, it makes decisions on significant large-scale investments related to our strategic direction and supervises the execution of business operations. In determining basic management policies, detailed discussions are held at the Directors' Discussion, which is attended by all our directors. This ensures that we consider a multifaceted range of opinions brought by our diverse board, adapting to the ever-changing international situation, business environment, and the roles JERA ought to play. For the oversight of business execution, we have established a reporting framework where directors responsible for business execution provide both regular and ad-hoc reports as needed. This ensures timely and accurate information sharing and appropriate response. The primary agenda items in FY2023 were as follows.

### Key Discussion Points of the Board of Directors

Category	Description
Crisis Response	Measures in response to the invasion of Ukraine and energy security
Management Strategies	New long-term vision, new environmental targets, financial strategy, new management goals, growth strategy, and safety measures
Regional Strategies	Regional business strategies across the globe
Decarbonization Strategy	Development of a for zero-emission thermal power and the establishment of a hydrogen & ammonia value chain
Investment Decisions	Business investments and M&A decisions in Belgium, the United States, and Japan, as well as in countries throughout Asia and other regions

## Leadership Panel and Expert Committees

We have established the Leadership Panel, which consists of the Global CEO and Chair, the President, Director, CEO and COO, and C-suite executives and officer, as a forum for deliberating on and deciding important management matters and receiving necessary reports based on the company's internal rules.

Moreover, expert committees have been established as subsidiary bodies to the Leadership Panel—in principle, one for each major field—to provide advice to the Leadership Panel from an expert perspective and support its deliberations. In principle, matters to be proposed and reported to the Board of Directors are discussed and decided by the Leadership Panel based on advice from the relevant expert committees. The results of deliberations by the Leadership Panel are reported to the Board of Directors, along with advice from the expert committees.

## Role of the Nomination and Compensation Committee and Its Discussion Topics

We have established the Nomination and Compensation Committee, which comprises three or more directors, including two outside directors. The Committee is formed to discuss matters related to the appointment and compensation of directors and executive officers. In FY2023, the Nomination and Compensation Committee met eight times. Attendance details for each of these meetings are as follows:

### Nomination and Compensation Committee Attendance\*

Position	Name	Meetings Attended
Global CEO and Chair	Yukio Kani	8 of 8 meetings
President, Director, CEO and COO	Hisahide Okuda	8 of 8 meetings
Outside Director	Satoru Katsuno	8 of 8 meetings
Outside Director	Daisuke Sakai	6 of 6 meetings

\*1. The above officers and their positions are as of the end of FY2023.

\*2. The attendance details for outside director Daisuke Sakai cover the Nomination and Compensation Committee meetings from his appointment in June 2023 onward.

Specific matters examined by the Nomination and Compensation Committee include the appointment, roles, and responsibilities of directors and executive officers, as well as the setting of compensation amounts, which are then separately approved by the Board of Directors.

## Strengthening of JERA Group Governance

We are committed to developing a group company management system with the aim of creating lasting corporate value for our Group. We respect the business traditions of our group companies in their respective countries and support swift and autonomous decision-making while granting appropriate authority and management resources. In accordance with this approach, we have adopted a resolution on an internal control structure to ensure appropriate business operations across the group. The JERA Group Compliance Policy and JERA Group Compliance Code of Conduct ensure we can provide appropriate support to group companies so that they can autonomously develop and operate structures suitable to their business. We have implemented framework agreements with our group companies and established mechanisms to determine compliance requirements for consulting, reporting, and monitoring activities. Specifically, by clarifying responsibilities and authority through internal rules, we strive to enable our group companies to make efficient decisions and conduct business activities swiftly and appropriately. In accordance with the Affiliate Management Regulations, JERA has established a system for prior consultation and reporting from group companies on important matters concerning consolidated management. In addition, to review management matters, including legally required actions and critical risks related to group management, we conduct regular and periodic monitoring of our group companies.





## Support for Directors

We have established a system that provides directors with the support they need to perform the duties expected of them. Among other benefits, the system provides each director with comprehensive, accurate information, as well as opportunities to learn more about our company's core businesses from outside experts around the world. We strive to provide materials to each director several days ahead of scheduled meetings. In addition, for our outside directors, we organize pre-meeting briefings and Q&A sessions regarding agenda items, ensuring that thorough deliberations can occur based on ample information, thereby optimizing the limited time allotted for discussions.

In FY2023, we covered a wide range of topics carried over from FY2022 during several discussions of key management issues. These included revisiting critical areas such as decarbonization strategies, financial strategies, and regional strategies, placing particular emphasis on safety efforts, our most critical material issue.

## Compensation Structure for Officers

The compensation for our directors is determined within the limits approved at the General Meeting of Shareholders, based on the deliberations of the Nomination and Compensation Committee and the resolutions of the Board of Directors.

Director compensation utilizes performance-based rewards in addition to fixed compensation. This approach stems from our intent to provide sound incentives that align with our aspirations for sustained growth.

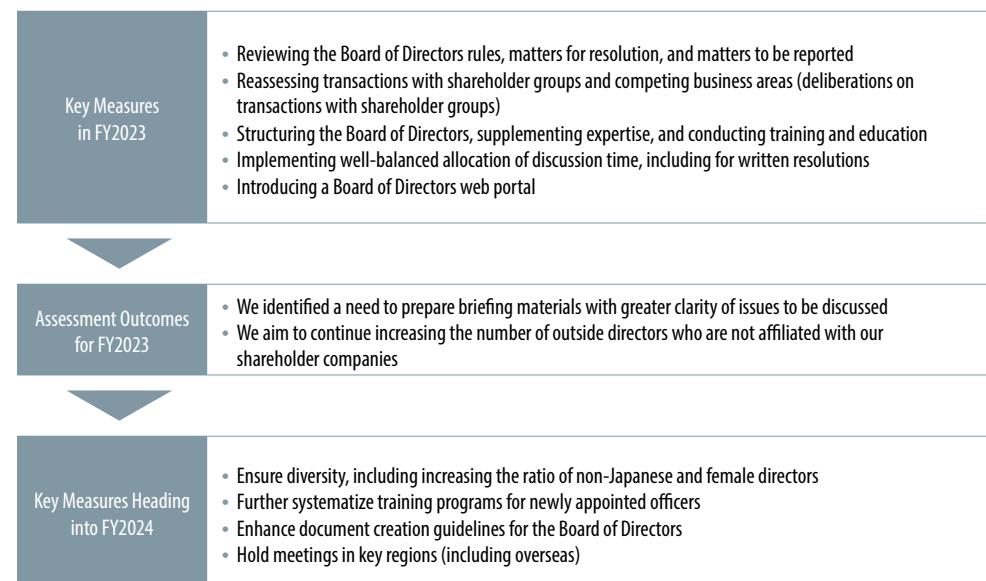
## Total Officer Compensation in FY2023\*

Officer Classification	Total Compensation (Million yen)	Compensation Breakdown by Type (Million yen)		Number of Officers
		Compensation	Rewards	
Directors	314	253	60	13
Corporate Auditors	75	75	—	4

\* The above rewards include one director who resigned during FY2023. The rewards are not allocated to outside directors.

## Evaluating Board Effectiveness

In order to tie our efforts to continuous improvement of the effectiveness of the Board of Directors, we conduct an annual survey among all directors and corporate auditors, asking them to consider the state of deliberations and operations of the Board of Directors. The Board of Directors analyzes and evaluates the results of these surveys, considers and implements measures to address the issues identified, and constantly strives to improve the effective functioning of the Board of Directors.



# Directors and Officers

## Appointment of Directors

Candidates for the Board of Directors are determined by the resolution of the board after consultation at the Nomination and Compensation Committee, taking into consideration each person's qualities and abilities necessary to serve as a JERA director in addition to the diversity and composition of the board. The Nomination and Compensation Committee comprises three or more directors, including two outside directors from JERA's shareholder companies. The Committee forms to discuss compensation and other personnel affairs relating to directors, corporate auditors, and executive officers.

\*1. Indicates an outside director as defined in Article 2-15 of the Companies Act

\*2. Indicates an outside auditor as defined in Article 2-16 of the Companies Act

\*3. Indicates an independent outside director as defined in JERA's independence criteria

\*4. Indicates an independent outside auditor as defined in JERA's independence criteria

## Directors



Reappointed

**Global CEO and Chair  
Yukio Kani**

Board meetings attended:  
23/23 (100%)  
Term of office: 8 years

Apr. 1986: Joined Tokyo Electric Power Co., Inc.  
Apr. 2013: Executive Officer, Tokyo Electric Power Co., Inc.  
Apr. 2015: Executive Officer, Tokyo Electric Power Co., Inc.  
Vice President, TEPCO Fuel & Power, Inc.  
Apr. 2016: Managing Director, JERA  
July 2016: Managing Director and Chief Strategy Officer, JERA, Director (Non-Executive), TEPCO Fuel & Power, Inc.  
Apr. 2019: Corporate Vice President, Chief Operating Officer, and Director of the Business Development Department, JERA  
Apr. 2020: Corporate Vice President, Chief Operating Officer, and Director of the Business Development Department, JERA  
Apr. 2022: Corporate Vice President, Managing Executive Officer, and Director of Business Development, JERA  
Apr. 2023: Global CEO and Chair of JERA



Reappointed

**President, Director, CEO and COO  
Hisahide Okuda**

Board meetings attended:  
22/23 (96%)  
Term of office: 4 years

Apr. 1988: Joined Chubu Electric Power Co., Inc.  
July 2017: General Manager, Strategies & Alliances Office, Head of Corporate Planning & Strategy Division, Chubu Electric Power Co., Inc.  
Apr. 2019: Managing Executive Officer and Chief Operating Officer of the Corporate Strategy Department, JERA  
Apr. 2020: Managing Executive Officer, Director, and Chief Operating Officer of the Corporate Strategy Department, JERA  
Apr. 2021: Corporate Vice President, Managing Executive Officer, Director, and Chief Operating Officer of the Corporate Strategy Department, JERA  
Apr. 2022: Corporate Vice President, Managing Executive Officer, and Director of Corporate Strategy, JERA  
Apr. 2023: President, Director, CEO and COO of JERA



Reappointed

**Corporate Vice President, Managing Executive Officer, Director, and Chief Financial Officer (CFO)  
Kazuo Sakairi**

Board meetings attended:  
23/23 (100%)  
Term of office: 5 years

Apr. 1987: Joined Bank of Tokyo (now MUFG Bank, Ltd.)  
Jan. 1995: Vice President, Bank of Tokyo Trust Company (New York)  
Nov. 2002: M&A Team Head Corporate Advisory Department, Mitsubishi Securities (now Mitsubishi UFJ Morgan Stanley Securities)  
June 2006: Senior Director, GCA Corporation (now Houlihan Lokey, Inc.)  
Jan. 2015: Executive Officer, Managing Director, and Head of Asia Region, GCA Corporation (now Houlihan Lokey, Inc.)  
Apr. 2019: Director, Managing Executive Officer, and CFO, JERA  
Apr. 2022: Corporate Vice President, Managing Executive Officer, and CFO of Finance and Accounting, JERA  
July 2023: Director, Corporate Vice President, Managing Executive Officer, and CFO, JERA



Reappointed

**Corporate Vice President and Chief O&M Engineering Officer (COMEO)  
Tetsuya Watabe**

Board meetings attended:  
20/20 (100%)  
Term of office: 1 year

Apr. 1987: Joined Chubu Electric Power Co., Inc.  
July 2011: General Manager, Head of Operation & Maintenance Section, Thermal Power Department, Power Generation Division, Chubu Electric Power Co., Inc.  
July 2013: General Manager, Head of Operation & Maintenance Section and Head of Project Planning Section, Thermal Power Department, Power Generation Division, Chubu Electric Power Co., Inc.  
July 2014: General Manager and Chief Operating Officer of Hekinan Thermal Power Station, Chubu Electric Power Co., Inc.  
Apr. 2016: General Manager and Chief Operating Officer of the Business Planning Office, Chubu Electric Power Co., Inc.  
Apr. 2018: Executive Officer and Chief Operating Officer of the Business Planning Office, Chubu Electric Power Co., Inc.  
Apr. 2019: Managing Executive Officer and Senior Operating Officer of the Optimization Department, JERA  
Apr. 2021: Senior Managing Executive Officer and Chief Operating Officer of the O&M Engineering Department, JERA  
Apr. 2022: Senior Managing Executive Officer in charge of O&M Engineering, JERA  
June 2023: Director (Non-Executive), JERA  
July 2023: Director, Corporate Vice President, Managing Executive Officer, and COMEO, JERA



Reappointed

**Director<sup>1,3</sup>  
Joseph M. Naylor**

Board meetings attended:  
23/23 (100%)  
Term of office: 3 years

Sep. 1982: Joined Chevron (California)  
July 2006: CEO/COO, Sasol Chevron (UK)  
Mar. 2009: General Manager – Business Development, Projects, Upstream Strategy and Planning at Chevron (California)  
Aug. 2013: Corporate Vice President – Strategic Planning, Chevron (California)  
Apr. 2016: Corporate Vice President – Policy, Government and Public Affairs, Chevron (California)  
Apr. 2021: Director (Non-Executive), JERA



Reappointed

**Director<sup>1,3</sup>  
Miyuki Suzuki**

Board meetings attended:  
23/23 (100%)  
Term of office: 3 years

Mar. 2002: Executive Vice President and Head, Consumer Business, Japan Telecom Co. Ltd.  
June 2004: CEO Asia Pacific, LexisNexis  
Jan. 2007: President and CEO, KVH Co. Ltd.  
Dec. 2011: CEO and Representative Director, Jetstar Japan KK  
May 2015: President and General Manager, Cisco Systems Japan  
Jan. 2018: President, Asia-Pacific, Japan and China, Cisco Systems (Singapore)  
Apr. 2021: Director (Non-Executive), JERA  
July 2021: Director (Non-Executive), Western Digital Corporation (current)  
Aug. 2022: Director (Non-Executive), Twilio Inc. (current)



Reappointed

**Director<sup>1,3</sup>  
John Rittenhouse**

Board meetings attended:  
17/20 (85%)  
Term of office: 1 year

Aug. 1980: Arthur Young & Co. (USA)  
Sep. 1983: Brandeis Intsel (USA)  
Nov. 1986: Intermarket Capital Partners (USA)  
Oct. 1989: Louis Dreyfus Energy (UK)  
Oct. 1998: CFO/Managing Director, EDF Trading Limited (UK)  
July 2008: CEO & Board Director, EDF Trading Limited (UK)  
Dec. 2020: Board Director (Non-Executive), D. Trading BV (Netherlands) (current)  
Jan. 2022: Outside Director, JERA Americas Holdings Inc. (USA) (current)  
May 2022: Board Director (Non-Executive), DTEK Renewables Int. BV (Netherlands) (current)  
Feb. 2023: Board Director (Non-Executive), Spearmint Energy LLC (USA)  
June 2023: Director (Non-Executive), JERA

## Directors and Officers



Reappointed Outside Independent

**Director<sup>1,3</sup>**  
**Lim Hwee Hua**Board meetings attended:  
12/20 (60%)  
Term of office: 1 year

Dec. 1996: Member of Parliament, Republic of Singapore  
Aug. 2000: Managing Director, Temasek Holdings (Private) Limited  
Apr. 2002: Deputy Speaker of the Parliament of Singapore and Chair of the Public Accounts Committee  
Aug. 2004: Minister of State for Finance and for Transport  
Apr. 2008: Senior Minister of State for Finance and for Transport  
Apr. 2009: Minister in the Prime Minister's Office in Singapore, concurrently Second Minister for Finance and for Transport  
July 2011: Non-Executive Independent Director, Jardine Cycle & Carriage Limited (current)  
July 2020: Vice Chair, International Valuation Standards Council (current)  
Mar. 2022: Non-Executive Independent Director, Nippon Paint Holdings Co. Ltd (current)  
Apr. 2023: Non-Executive Independent Chairman, Japfa Ltd (current)  
June 2023: Director (Non-Executive), JERA

New Appointment Outside  
**Director<sup>1</sup>**  
**Akihiro Watanabe**Board meetings attended:  
—

Oct. 1980: Joined Heiwa Kyodo Accounting Office, Japan  
May 1982: Joined Peat Marwick Mitchell & Co. New York Office  
July 1990: Partner (Co-Chief Executive Officer), Peat Marwick Mitchell & Co.  
July 1994: Director, CEO, KPMG Corporate Finance  
Oct. 2002: Visiting Professor, Graduate School of Business Administration and School of Business Administration, Kobe University  
Apr. 2004: Director, CEO, GCA  
Aug. 2004: Director (Non-Executive), Acologix Inc., (USA)  
Apr. 2005: Visiting Professor, Graduate School of Law, Hitotsubashi University  
Apr. 2008: Visiting Professor, Chuo Graduate School of Strategic Management  
Nov. 2008: Director (Non-Executive), Ranbaxy Laboratories Ltd  
Dec. 2015: Director (Non-Executive), Maruho Co., Ltd. (current)  
Sep. 2016: Director (Non-Executive), Uny FamilyMart HD Co., Ltd.  
Feb. 2022: Chairman, Houlihan Lokey Corp. (current)  
June 2022: Director (Non-Executive), Toshiba Corporation  
June 2024: Director (Non-Executive), JERA

### Reason for Appointment

With extensive experience and a proven track record in corporate governance as a director of various companies both in Japan and abroad, Akihiro Watanabe is considered an ideal candidate for the board of directors. He has led numerous M&A advisory projects and corporate valuation services, which positions him to significantly contribute to the enhancement of JERA's corporate value.

New Appointment Outside  
**Director<sup>1</sup>**  
**Kazuhiro Nabeta**Board meetings attended:  
—

Apr. 1986: Joined Chubu Electric Power Co., Inc.  
July 2015: Executive Officer, General Manager of Electronics & Telecommunications Department, Chubu Electric Power Co., Inc.  
Apr. 2016: Executive Officer, General Manager of Group Corporate Planning & Strategy Division, Chubu Electric Power Co., Inc.  
Apr. 2018: Executive Officer, General Manager of Corporate Headquarters, Chubu Electric Power Co., Inc.  
Apr. 2020: Senior Managing Executive Officer, General Manager of Research & Development Division, Chubu Electric Power Co., Inc.  
Apr. 2023: Senior Managing Executive Officer, General Manager of Research & Development Division, CTO, CSO, Chubu Electric Power Co., Inc.  
Apr. 2024: Executive Vice President, General Manager of Corporate Planning & Strategy Division, CIO, Chubu Electric Power Co., Inc.  
June 2024: Director (Non-Executive), JERA  
June 2024: Director, Executive Vice President, General Manager of Corporate Planning & Strategy Division, CIO, Chubu Electric Power Co., Inc.

### Reason for Appointment

We anticipate that Kazuhiro Nabeta's shareholder perspective, combined with his extensive experience in the power industry, will significantly contribute to the advancement of our management strategy and technological development. For these reasons, we believe he is exceptionally qualified to serve as a director on JERA's board.

Reappointed Outside  
**Director<sup>1</sup>**  
**Daisuke Sakai**Board meetings attended:  
16/16 (100%)  
Term of office: 1 year

Apr. 1994: Joined Tokyo Electric Power Co., Inc.  
Apr. 2016: General Manager, Business Planning Office, TEPCO Fuel & Power, Inc.  
Apr. 2019: President, TEPCO Logistics Co., Ltd.  
Apr. 2021: General Manager, Corporate Planning Office, Corporate Management & Planning Unit, TEPCO Holdings, Inc.  
Apr. 2022: Managing Executive Officer, Corporate Planning and Business Reorganization Manager, TEPCO Holdings, Inc.  
Jointly in charge of Business Development and Alliances  
President, TEPCO Fuel & Power, Inc. (current)  
Apr. 2023: Executive Vice President, TEPCO Holdings, Inc.  
Jointly in charge of Corporate Planning and Business Reorganization  
June 2023: Director (Non-Executive), JERA  
June 2023: Representative Executive Vice President, TEPCO Holdings, Inc.  
Jointly in charge of Corporate Planning (current)

## Corporate Auditors



Reappointed Outside Independent

**Auditor<sup>2,4</sup>**  
**Hideo Oishi**Board meetings attended:  
20/23 (87%)  
Auditor panel meetings attended:  
37/37 (97%)  
Term of office: 5 years

Apr. 1985: Joined the Japan Development Bank (now the Development Bank of Japan Inc.)  
June 2015: Member of the Board of Directors and Managing Executive Officer at the Development Bank of Japan Inc. (until June 2018)  
June 2016: Executive Director, Research Institute of Capital Formation at Development Bank of Japan Inc.  
Apr. 2019: Corporate Auditor, JERA

**Auditor**  
**Shuichi Kimura**  
Board meetings attended:  
20/20 (100%)  
Auditor panel meetings attended:  
29/29 (100%)  
Term of office: 1 years

Apr. 1991: Joined Chubu Electric Power Co., Inc.  
Apr. 2018: General Manager, Maintenance Group, Thermal Power Generation Business, Power Generation Company, Chubu Electric Power Co., Inc.  
Apr. 2019: General Manager, Kawasaki Thermal Power Station, O&M Department, JERA  
Apr. 2021: General Manager, Nuclear Safety Research & Development Center, Research & Development Division, Chubu Electric Power Co., Inc.  
(Seconded from the O&M Engineering Group, JERA)  
Apr. 2023: Senior Supervisor, the Auditor's Section, JERA  
June 2023: Corporate Auditor, JERA

New Appointment Outside  
**Auditor<sup>2</sup>**  
**Masahiro Onodera**  
Board meetings attended:  
—  
Auditor panel meetings attended:  
—

Apr. 1986: Joined Tokyo Electric Power Co., Inc.  
Sep. 2012: Secretariat of Corporate Management Reform Division, and Secretariat of the Nuclear Reform Special Task Force, Tokyo Electric Power Co., Inc.  
June 2013: General Manager of Nuclear Fuel Cycle Department, Nuclear Power & Plant Siting Division, and Secretariat of the Nuclear Reform Special Task Force, Tokyo Electric Power Co., Inc.  
June 2017: General Manager of Resource Aggregation Office, TEPCO Research Institute, and Secretariat of the Nuclear Reform Special Task Force, Nuclear Reform Unit, Tokyo Electric Power Co., Inc.  
Feb. 2018: Nuclear Power & Plant Siting Division, TEPCO Holdings, Inc. (Seconded to Nuclear Fuel Transport Company, Ltd.)  
June 2018: Corporate Auditor, Nuclear Fuel Transport Company, Ltd.  
June 2024: Corporate Auditor, JERA

### Reason for Appointment

We anticipate that Masahiro Onodera's extensive experience in the power industry, developed during his tenure at TEPCO Holdings, as well as his experience as an auditor for companies in Japan, will significantly contribute to the improvement of our audit processes. For these reasons, we believe he is exceptionally qualified to serve as a corporate auditor.

### Independence of Outside Directors

At JERA, we designate outside directors and corporate auditors who meet specific criteria as being independent of the company. We expect these independent officers to act impartially, free from influence by major shareholders and executives, and to consider the interests of all stakeholders in the management and operations of our company. Their participation ensures meaningful and effective board discussions. Although JERA is an unlisted joint venture, we aim for a board composition and deliberation process that ensures transparency, fairness, and impartiality.



Independence Criteria for Outside Directors and Outside Corporate Auditor of JERA Co., Inc.  
[https://www.jera.co.jp/en/sustainability/governance/independence\\_criteria](https://www.jera.co.jp/en/sustainability/governance/independence_criteria)

## Messages from the Outside Directors

- 81 Joseph M. Naylor  
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John Rittenhouse  
83 Lim Hwee Hua  
Akihiro Watanabe

### JERA Growth Strategy from Stakeholder Perspective

**Joseph M. Naylor** Outside Director, JERA Co., Inc.

Joseph previously served as Corporate Vice President of Chevron, covering Policy, Government and Public Affairs. He joined JERA in April 2021 as a member of the Board of Directors.



In May 2024, JERA announced its 2035 Growth Strategy, unveiling its strategic business pillars, organizational structure, and long-term financial and emissions targets. I'd like to discuss this growth strategy through the lens of sustainability and the role of the board of directors in helping formulate the strategy and monitor its implementation.

The term "sustainability" has many dimensions. One can look at sustainability in terms of the company's impact on the global environment, customers, investors, and employees. Ultimately, the goal is to ensure a balance across all these dimensions to ensure a robust strategy.

On the global scale, JERA's 2035 Growth Strategy was formulated specifically to help the company achieve its goal of having net zero carbon emissions by 2050. Significant capital investments are being made in renewables, hydrogen & ammonia, and LNG. JERA recognizes that new value chains and new technologies need to be developed to achieve this net zero goal. In addition to its own investments, JERA is also committed to working with emerging countries to aid them in the development of their own decarbonization roadmaps.

For customers, sustainability means access to stable, affordable, and ever-cleaner energy. This is particularly important for JERA in its home market of Japan. JERA recognizes its unique role in supplying roughly one-third of Japan's electricity demand and meeting its customers needs. As such, there is a critical balance between the speed at which the company pursues its decarbonization goals and the need to provide stable, affordable, and cleaner energy to its customers.

There are many companies with a financial interest in JERA, either through equity participation or debt. Part of their consideration of sustainability is to ensure that JERA remains a viable commercial concern, one that generates sufficient profit to provide a return on their investments over the longer term. This requires JERA to make sound decisions on new investments and to be a good steward of the capital that is entrusted to it.

For employees, sustainability includes a safe working environment, job security, and equal opportunities to contribute and advance. JERA is making great strides in each of these areas. Over the past several years, they have collaborated with external experts to assess JERA's safety practices and then implemented their recommendations on how it can improve further. There has also been great progress in improving diversity and inclusion across the company to ensure that everyone feels respected and valued.

The Board has been involved in discussions in all of these areas, providing input based on their experience and helping the company find the right balance for the many dimensions of sustainability.



## Looking Forward to JERA's Next Decade of Growth and Transition

**Miyuki Suzuki** Outside Director of JERA Co., Inc.

Raised in Australia, the UK, and Italy, Miyuki experienced cultural diversity living and working in eight countries across Europe, the Middle East, North America, and the Asia-Pacific region. She is a business leader with experience in sales, marketing, and general management roles in the IT and aviation industries.



Having served on the Board of JERA for the past three years, I am excited by the announcement of our new growth strategy for the next 10 years, which comes at a time of unprecedented challenges and opportunities. As the world grapples with the imperative to address climate change, JERA must lay out a clear, measurable roadmap toward carbon neutrality by 2050, where sustainability, affordability, and stability are essential pillars of a successful strategy, built on a bedrock of utmost accountability for safe operations.

As the largest single power generation entity in Japan, with an expanding international platform and footprint, JERA is uniquely positioned to lead this transition by developing solutions that leverage LNG, blue and green hydrogen & ammonia, and renewable energy sources such as wind and solar power. The company is also investigating the possibilities offered by new fields such as CCS and battery storage. The recent successes of tests for substituting ammonia in thermal power plants shows promise as one of several methods of achieving our net zero goals.

The current leadership continues to refine JERA's organizational structure into three broad functions—business development, optimization, and O&M—in order to navigate this transition profitably and effectively. I have faith that this will help focus our attention on investments that add the most return and value to our journey, ensure stable supply to match demand, and harness digitization and AI to drive greater efficiency, predictability, and safety. Above all, I hope to see JERA build key centers of excellence that will ensure our achievement of ESG goals while enhancing our financial health so we can continue to make investments that allow us to track, or accelerate, our 10-year roadmap, above and beyond.

JERA has constructed an unparalleled end-to-end supply chain structure that should help us weather geopolitical and market uncertainty. However, we cannot do this without developing a network of collaborative partnerships, not just with suppliers and operators but also with governments and customers. JERA has contributed significantly to the stabilizing of prices through its expertise in global asset-backed trading, and I anticipate this skill will become important as markets for power trading and other derivative transactions mature.

I am also thrilled to see the establishment of JERA Nex in Europe, a hotbed of innovation in renewable energy, the ultimate holy grail of clean power production. By embracing the three business pillars of its growth strategy, JERA will forge a balanced path that addresses environmental concerns, economic realities, and reliable energy to meet the needs of today while safeguarding the prospects of tomorrow.

## LNG's Role in the Energy Transition

**John Rittenhouse** Outside Director, JERA Co., Inc.

John has a 40-year career in the commodities industry and has expertise in global corporate governance. He joined JERA in June 2023 as a member of the Board of Directors.



In May 2024, JERA published its long-term Growth Strategy, which addresses three objectives for the future of the Group's electricity supply: sustainability, affordability, and stability. At the same time, it sets out ambitious goals to decarbonize its current, mostly fossil fuel-based, power generation. To achieve these sometimes-competing priorities, JERA has defined three business pillars: liquefied natural gas (LNG), renewables, and hydrogen & ammonia, in which broadly equal investment will be made over the next 10 years.

So why is LNG a core pillar of the strategy when it is a fossil fuel that emits CO<sub>2</sub>? While JERA is making large investments in renewables and clean hydrogen & ammonia supply chains, and converting coal-burning power plants in Japan to be able to use ammonia, it must be recognized that before moving to 100% sustainability with zero emissions, the reality of affordability and stability must be addressed. This is crucial not only for Japan but for many Asian countries that currently rely entirely on low-quality, high-emission coal and oil.

During the time that these low and zero-carbon fuel technologies and facilities are developed and scaled up, LNG is critical to bridge the gap as a transition fuel because LNG has lower emissions compared to other hydrocarbon fuels; LNG complements wind and solar by providing flexible and reliable power supply that ensures grid stability and security of supply; LNG can be stored for extended periods and used during high-demand periods or when renewable energy supply is limited; and JERA has a well-established infrastructure for production, transportation, and wholesale marketing of LNG, making the energy transition more cost-effective.

JERA's Growth Strategy aims to use its expertise and infrastructure in the LNG supply chain to provide a compelling, cost-effective opportunity for countries in Asia to move away from high-emission coal and oil-fired generation and toward zero carbon emissions. For these growing countries with fast-increasing energy demands, achieving affordability and reliability requires baseload generation, which cannot be immediately accomplished with 100% renewables. Therefore, LNG is the best choice for the first step in this process, as it can provide affordability and reliability while moving toward full sustainability.

## Multi-Pronged Strategy Toward Decarbonization

**Lim Hwee Hua** Outside Director, JERA Co., Inc.

She has extensive knowledge and experience of the evolving political and economic trends in Asia, including a long career as a member of Singapore's Parliament and as a corporate executive. She joined JERA in June 2023 as a member of the Board of Directors.



JERA adopts a multi-pronged strategy to lowering greenhouse gases while ensuring that the path toward decarbonization is sustainable, that access to energy remains affordable and, most importantly, that there is security in the energy supply. This goal holds true regardless of where JERA operates, be it in Japan, Asia, or anywhere else the world.

To achieve these decarbonization goals, JERA focuses on building renewable energy power plants and scaling energy platforms in a meaningful way. Currently, JERA operates both offshore and onshore wind farms, as well as solar power plants, in conjunction with battery storage solutions. However, because renewable energy suffers from intermittency issues, JERA continues to focus on building battery life, including recycling used batteries.

Until renewables can provide a secure and sustainable energy supply, there will be continued reliance on thermal power plants. For the thermal plants that use fossil fuels, JERA has initiated a plan to transition from coal to LNG while utilizing hydrogen & ammonia to lower the production of greenhouse gases. In June 2024, JERA successfully tested the use of ammonia as a substitute for up to 20% of the coal used in thermal power generation. Likewise, we plan to replace LNG fuel use incrementally with hydrogen. This strategy will go a long way toward lowering greenhouse gases to a minimum in the long term until renewable energy becomes reliable.

Given that Asia remains an area of high economic growth, a secure, sustainable, and affordable energy supply, at affordable rates, is critical to realizing that growth potential. Therefore, we must ensure that energy can be supplied to all areas of the economy—from industrial parks, transportation systems, and office buildings to, to hospitals, schools, and homes. This energy has to be generated in a sustainable manner as we progress toward both decarbonization and affordability. Asia offers the possibility of newer installations as a response to growth and new partnership opportunities. Regardless, the decarbonization test will remain.

All of this points to the need to build clean energy platforms with the ability to optimize supply in response to fluctuations in demand. These platforms may require patient capital, particularly for renewable projects, where technological innovation, though helpful, might frustrate typical engineering efforts.

An essential component of these projects is digitization—be it in simple automation, the utilization of data, or the application of artificial intelligence to manage platforms.

This is JERA's commitment toward achieving net zero emissions by 2050.

## JERA's Continued Growth into a Global Public Entity

**Akihiro Watanabe** Outside Director, JERA Co., Inc.

Akihiro Watanabe has led the development of advisory and corporate valuation services in numerous M&A ventures and has extensive experience and achievements in corporate governance as a director of both domestic and foreign companies. He has been an outside director at JERA since June 2024.



In my previous position, I participated in the comprehensive alliance project that joined TEPCO and Chubu, resulting in the birth of JERA. I will never forget how the eyes of everyone involved shone with a sense of purpose. Today, my eyes are still focused on JERA and the remarkable growth it has achieved since then. I have been involved in M&A for the past 40 years, but I have yet to hear of a more successful joint venture than this one. The success we have enjoyed here is underpinned by three factors: a sense of crisis, diversity, and globalization.

Now, in its ongoing evolution, JERA has moved beyond the scope of joint venture, aiming to become not only a public institution but also a global public entity. As an outside director, I feel a strong sense of responsibility and pride in being able to contribute to JERA once more.

In the wake of the Enron scandal in 2001, I left my career as a CPA to manage an M&A advisory firm (GCA, now Houlihan Lokey). I then went on to serve as an outside director for a US biotech venture, an Indian pharmaceutical company, and a US shale gas development company. However, all of these companies failed.

I sold my company, GCA, which was then taken private, and most recently, as chair of Toshiba's board of directors, I spearheaded the company's move to go private after shareholder issues disrupted operations.

The challenges I experienced as director at these companies taught me that a single judgment call can achieve exponential growth—or lead to bankruptcy. There is no such thing as a trivial board meeting; every one requires my full attention. Therefore, as a member of the JERA Board of Directors, I strive to be mindful of the following three points.

- I. As a non-specialist with regard to the energy industry, I will not be at the center of managing business affairs but will provide objective advice based on my own knowledge of how to improve management.
- II. I will support the management leadership team to my fullest abilities, enabling them to confidently take sound risks.
- III. I will maximize financial returns as investors for our shareholder companies, TEPCO and Chubu.

I believe JERA's operations, leadership team, and Board of Directors are all world-class. That is why I consider JERA's continued growth my personal responsibility, and it is that sense of ownership that fuels my work.

# Risk Management

## Fundamental Approach and Issue Awareness

JERA strives for effective risk management by understanding the risks associated with our corporate activities and minimizing losses when these risks materialize. These efforts support our goal of enhancing corporate value and fulfilling our social responsibility to stakeholders.

Potential risks that could have a significant impact on our corporate activities include market risks (commodities, foreign exchange, and interest rates); risks of policy changes, particularly in energy and environmental policies; business investment risks, including operational accidents, damage to facilities due to natural disasters, shutdowns, or construction delays; compliance risks; and threats such as cyberattacks and malware affecting power plant control systems and other critical infrastructure.

In addition, geopolitical risks arising from heightened political and social tensions between countries and regions, such as the situation in Russia and Ukraine and US-China relations, must be appropriately addressed in the same manner as country risk.

The JERA Group is committed to the continued enhancement of our risk management to fulfill our social responsibility as an energy company that supports social infrastructure.

## Risk Management System

We have established a highly effective risk management system headed by the company President, Director, CEO and COO to ensure a stable energy supply and fulfill our social responsibilities.

In non-emergency situations, our fundamental approach to risks associated with our business activities is to manage them within the execution of duties by the unit responsible for the operations. When the risk affects multiple divisions, we manage it appropriately in a cross-organizational manner. In the event of a crisis, an emergency task force headed by the company President, Director, CEO and COO is deployed to respond quickly and appropriately to minimize the impact on our business.

In addition, the Financial Strategy and Planning Division, which serves as the risk management division at JERA, is organizationally and structurally

independent from each division that conducts business, contributing to healthy tension within the system.

The Risk Management Committee, chaired by the company President, Director, CEO and COO, meets quarterly and is attended by several parties to ensure appropriate monitoring of risks (see Risk Management Structure below). These include the C-suite executives or officer in charge of each division, corporate auditors, and the Internal Audit Group, among others. In particular, we strive to prevent risks from materializing by reporting on our policies and specific measures for dealing with risks that could significantly impact our

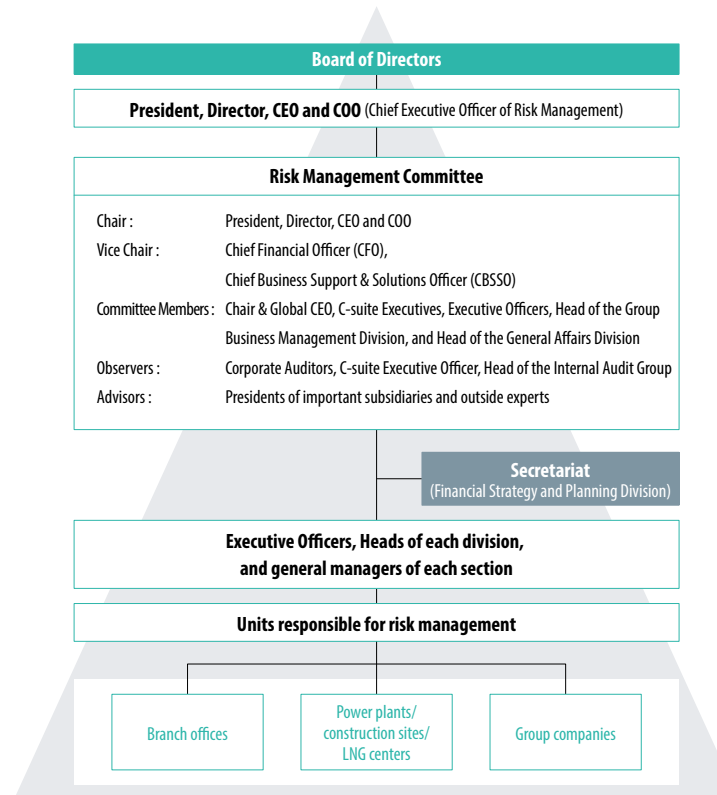
business. In the unlikely event that a risk materializes, the necessary reports on the response of the emergency task force are provided quarterly.

Discussions at the Risk Management Committee are reported to the Leadership Panel and the Board of Directors each time, reflecting the opinions of executive officers, directors, and outside directors.

In addition, all outside directors receive an explanation of the company's risk management system and methods upon appointment, and their opinions are incorporated through exchanges of views and other means.

### Risk Management Structure

(as of July 31, 2024)



### Risk Assessment Flowchart



### Main Risk Categories

- ① Operational Accidents
- ② Financial Information
- ③ Regulations / Legal Amendments / Geopolitics
- ④ External Stakeholders
- ⑤ Management Strategies
- ⑥ Labor Affairs / Human Resources
- ⑦ Input / Output
- ⑧ Product / Energy Prices
- ⑨ Natural Disasters
- ⑩ Investment Management
- ⑪ Riots / Crime
- ⑫ Cybersecurity
- ⑬ Legal Affairs / Ethics
- ⑭ Environment / Climate Change

## Risk Management

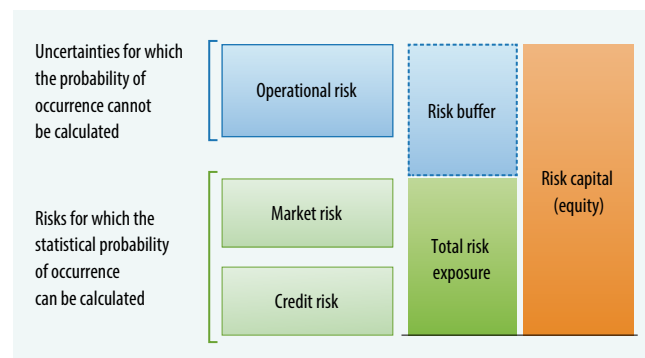
### Highly Effective Risk Management

Our approach to risk management is based on combining the functions of integrated risk management, evaluation of financial soundness, and evaluation of individual investments.

### Integrated Risk Management

Integrated risk management defines and classifies the risks we face into three categories: operational risk, market risk, and credit risk. We quantify our total risk exposure based on market risk and credit risk.

The difference between total risk exposure and risk capital is calculated as the risk buffer.

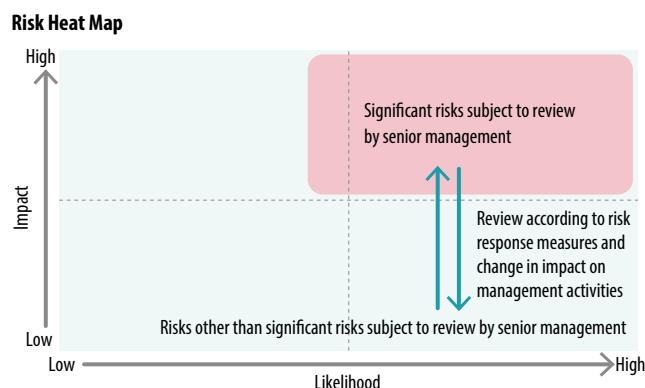


Our risk buffer is maintained at a certain level by considering operational risk as an uncertainty for which the probability of occurrence is incalculable. Operational risk is managed using a risk map that impacts management activities on the vertical axis and the frequency of risk occurrence on the horizontal axis. For each managed risk, we take measures such as retention, mitigation, and transference in cooperation with each division and the Financial Strategy and Planning Division, depending on the type and characteristics of the risk.

Among operational risks, risks that have a high impact on management activities and a high frequency of risk occurrence are identified as significant

risks subject to review by senior management.

The Risk Management Committee, the Leadership Panel, and the Board of Directors meet quarterly to discuss the amount of integrated risk as well as policies and specific measures to address these significant risks subject to review by senior management in particular.



### Evaluation of Financial Soundness

In our evaluation of financial soundness, we use the rating methodologies of rating agencies to evaluate the long-term outlook for financial rating levels in the business planning workflow and implement balance sheet management to maintain a financial rating of A through FY2035.

### Evaluation of Individual Investments

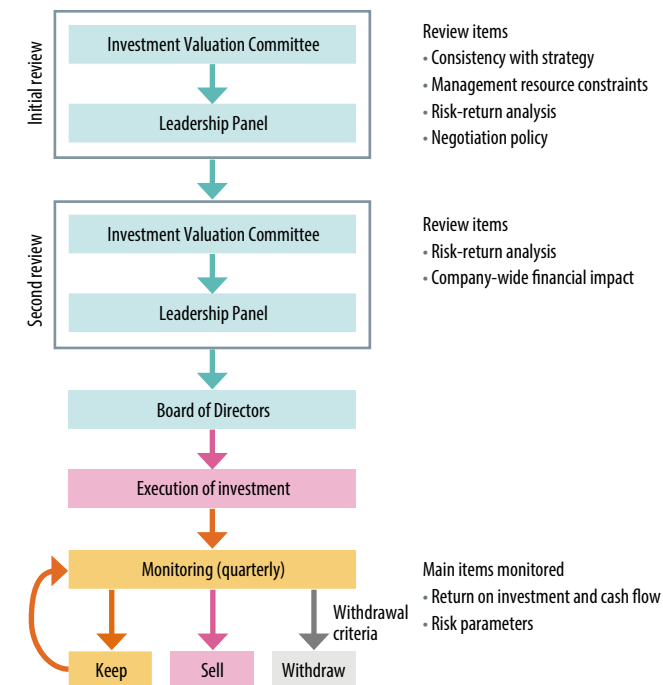
After confirming the consistency of individual investment evaluations with our field-specific investment strategies, our Investment Valuation Committee, which includes members with experience in investment screening at financial institutions and other organizations, conducts reviews by which we verify the long-term investment potential.

In addition, we properly evaluate and manage risks by engaging in regular monitoring and establishing withdrawal criteria.

Our risk-return analysis utilizes more than 200 guideline rates calculated for

each strategic target country and business.

### Investment Valuation Process





## Risk Management

### Countermeasures for Large-Scale Disasters

We have the largest power generation capacity in Japan. Based on the Basic Act on Disaster Management, we have put together and published our Operational Disaster Risk Reduction Plan, Operational Plan for the Protection of Citizens, and Operational Plan for COVID-19 and Other Pandemic Countermeasures. We also have emergency and disaster response rules and manuals in place to enable prompt decision-making and a swift response in the event of an emergency.

Recently, there has been concern regarding natural disasters such as earthquakes occurring directly beneath the Tokyo metropolitan area or off the Nankai Trough and an eruption of Mt. Fuji, which has prompted revisions by the national and local governments to damage estimates and disaster risk reduction measures. In light of these revisions, we are undertaking the necessary measures, such as earthquake-proofing our facilities in addition to periodically conducting drills to simulate large-scale disasters.

### Enhancement of JERA's BCP and BCM

In light of the expansion of our business domains after integrating our thermal power business in 2019 and other changes in the business environment, JERA is taking various steps to further improve business continuity. In the event of a large-scale disaster, we must ensure that our group's important business operations are not interrupted or, if interrupted, that they are restored in the shortest possible time. And so, we have established Business Continuity Management (BCM) Rules to strengthen our everyday management activities.

Based on these rules, we have established the BCM Subcommittee, which reports to the Risk Management Committee regarding the establishment and review of the Business Continuity Plan (BCP) and regularly checks progress on disaster drills and advance measures.

In July 2023, under the scrutiny of outside experts, we received resilience certification for our BCP/BCM.

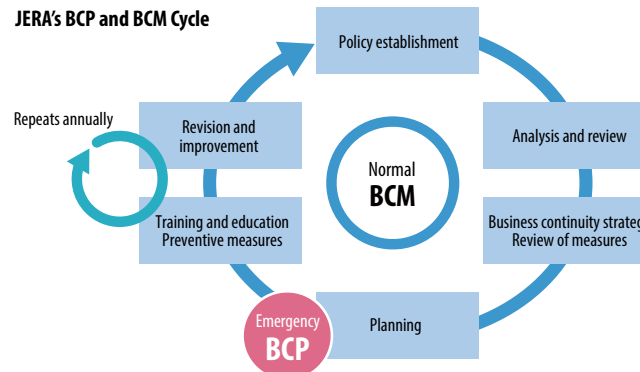


Resilience Certification in July 2023

#### Basic Policy for JERA's BCP and BCM

- In the event of any disaster or risk event, we will place the highest priority on the safety and security of people and ensure public safety in compliance with laws and regulations.
- To fulfill our responsibility as an energy provider supporting the social infrastructure in Japan, we will contribute to society and local communities by quickly restoring and continuing our core business of supplying them with electricity and gas.

#### JERA's BCP and BCM Cycle



### Enhancing Execution through BCP Drills

BCP drills include planning for the restoration of thermal power plants, simulating a supply-demand crunch after a disaster, sharing information with affected facilities, and collecting and coordinating information leading up to the release of press statements.

We also conduct rigorous drills under harsh conditions, including communication drills with shareholder companies, ship deployment exercises in the event of transportation disruptions, and satellite phone drills in the event of communication outages, all with the aim of enhancing our execution abilities. We will continue to strengthen our coordination with grid operators in the event of a supply-demand crunch.

Insights and challenges identified during these drills are continuously reviewed and improved upon, ensuring that we continue to work to further improve execution.



In-House BCP Drills

### Featured

#### Creating the "Employee Action Guidelines" and the "JERA Disaster Prevention Guide for Families" in Case of Emergencies

The "Employee Action Guidelines for Emergency Disasters" were created to clearly outline the actions employees should take in the event of an emergency or disaster. It is designed to ensure their safety and the smooth and appropriate execution of disaster response. In addition to previously established guidelines for commuting employees, we have created new protocols for employees on business trips and those working from home.

Moreover, driven by the belief that protecting not just our employees but also their families is essential for employees to focus on disaster recovery, we have developed the "JERA Disaster Prevention Guide for Families." This guide provides easy-to-understand disaster preparedness measures for families who might need to remain at home during natural disasters such as earthquakes.

We are committed to the constant challenge of implementing initiatives that ensure safety is our top priority in emergencies.



JERA Disaster Prevention Guide for Families

### Development and Ownership of Thermal Power Sources

As an electric utility provider, we believe that we need to ensure that our strategies are flexible and resilient, with options for responding to changes anticipated in the global business environment in the face of future uncertainties.

In developing plans for the development of new power sources and the retention of existing power sources, we set multiple scenarios for future power market conditions, including risk cases in which business opportunities for thermal power sources are reduced.

While taking into account future electricity demand and price competitiveness in the electricity market, we are replacing aging existing facilities with state-of-the-art, high-efficiency facilities in order to maximize earnings and avoid developing and owning unprofitable thermal power sources (so-called stranded assets).

# Information Security

## Fundamental Approach

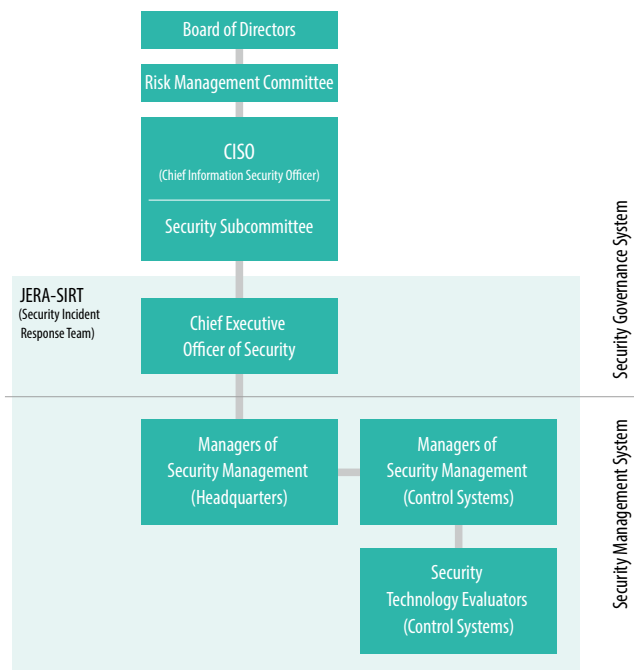
At JERA, our mission is to provide cutting-edge solutions to the world's energy issues. The use of information technology is indispensable for achieving this mission, and we have established the JERA Group Information Security Basic Policy to protect our information assets and enhance the safety of transactions.

## Cybersecurity Management System

To promote cybersecurity, we have established a structure for managing cybersecurity risks under the responsibility of senior management and our Chief Information Security Officer (CISO).

### Diagram of Cybersecurity Management Structure

(as of July 1, 2024)



The Security Subcommittee, headed by the CISO, has been established to promote cybersecurity activities during normal operations in coordination with the Risk Management Committee, which oversees the entire risk management structure.

Moreover, we have established security management functions and a Security Incident Response Team (SIRT) to assist the CISO and management in overseeing cross-organizational security measures and incident response.

## Enhancing Information Security Measures

The scope of the Information Security Basic Policy extends to all personnel involved in operations and all resources used in operations, such as materials and environments. It aims to manage and protect related information assets while strengthening security measures to address risks such as cyberattacks.

There continued to be no serious incidents related to information security or the protection of personal information in FY2023.

We continuously educate all employees who handle information assets to raise their awareness of information security and improve their skill levels. Our aim is to ensure thorough compliance with this policy and relevant laws and regulations.

In addition, all employees are given a "Security Card" that outlines compliance matters to raise awareness of information security and to ensure a swift response in the event of an information security incident.

Moreover, we conduct ongoing training on targeted e-mail attacks for all employees and offer e-learning and other programs to reduce the risk of information leaks and computer viruses arising from such attacks.

The results for FY2023 are as follows.

## Education and Training on Information Security (FY2023)

### Security Education

Scope: 4,471 participants (including officers, employees, and temporary staff)

Frequency: Once a year

Method: e-learning

### Targeted E-mail Attack Training

Scope: 4,507 participants (including officers, employees, and temporary staff)

Frequency: Twice a year

Method: E-mail

At JERA, we have put together a roadmap for future security measures, including a plan to establish a global security infrastructure to improve information security across the entire group.

In addition, to promote operational efficiency through the use of secure generative AI, we have formulated the "JERA AI Usage Guidelines," which include security compliance items and usage instructions. We have shared these guidelines with officers and employees.

## Enhancement of Information Security Measures for Domestic and Overseas Group Companies

We refer to the Cybersecurity Management Guidelines established by the Ministry of Economy, Trade and Industry (METI) to review and implement security measures for the JERA Group. We are also promoting security management at group companies both in Japan and overseas while strengthening security through risk management and security education. In addition, in March 2024, we obtained Information Security Management System (ISMS) certification for some operations at group company JERA Cross.

# Compliance

## Fundamental Approach and Issue Awareness

Under our mission to provide cutting-edge solutions to the world's energy issues, JERA is committed to earning and maintaining the trust of our stakeholders through rigorous compliance based on the JERA Group Compliance Policy and the JERA Group Compliance Code of Conduct.

As a company that owns and operates a entire value chain stretching from upstream fuel development and procurement to power generation and wholesale electricity and gas sales, we have a responsibility to address a range of compliance challenges related to competition law, bribery, human rights, the environment, and more. Moreover, our employees faithfully adhere to and respect the laws, regulations, and social norms related to the above issues, guided by a heightened sense of ethics befitting a global operation.



JERA Group Compliance Policy  
<https://www.jera.co.jp/en/sustainability/compliance/ethicspolicy>



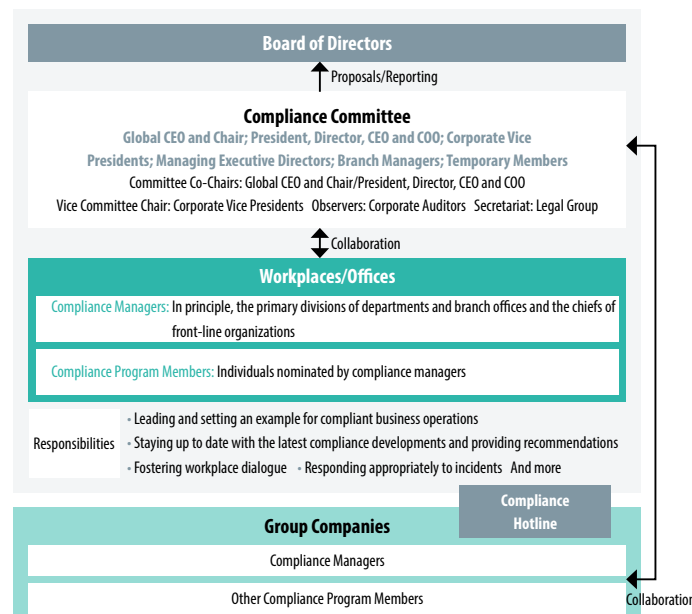
JERA Group Compliance Code of Conduct  
<https://www.jera.co.jp/en/sustainability/compliance/codeofconduct>

## Compliance Promotion System

We have established the Compliance Committee to review and decide on various compliance-related measures and thereby promote compliance-oriented management. This committee is composed of internal members, including the Global CEO and Chair, and the President, Director, CEO and COO, along with external counsel and other outside experts as ad-hoc members. The content of compliance measures, investigations into misconduct, corrective actions, measures to prevent recurrence, and other matters deliberated and reported on by the committee are to be discussed with or reported to the Board of Directors as necessary. The Legal Group, which serves as the committee's secretariat, works closely with compliance managers and program officers at each workplace and office, as well as with heads of compliance from group companies, to promote group-wide compliance among all levels of the JERA Group.

### Compliance Program Structure

(as of July 1, 2024)



## Compliance Promoting Education and Training

Our Compliance Committee incorporates the opinions of outside experts and employee survey results, deliberating on and determining compliance-related measures and monitoring their progress each fiscal year.

In FY2023, we promoted compliance through the formulation of the JERA Compliance Guidance, which explains our Compliance Policy and Code of Conduct; the holding of Compliance Promotion Month, an event to promote compliance; and the use of the intranet and internal social media services.

In FY2024, we will continue to focus on boosting employee compliance by establishing compliance measures that are easy to follow and placing further emphasis on strengthening information sharing and training while also ensuring that an awareness of compliance takes root in our organization.

### Compliance Initiatives in FY2023

#### Formulation of Compliance Guidance



#### Implementation of Compliance Promotion Month



#### Use of social media and intranet



## Compliance

### Corruption Prevention

In order to comprehensively prevent corruption as stipulated by the JERA Group Compliance Policy and the JERA Group Compliance Code of Conduct, we have stipulated internal rules to establish approval procedures for entertainment, gifts, and donations to domestic and foreign public officials or agents of those officials; delineate prohibited activities, and describe reporting procedures for the exchange of money or goods with business partners. Furthermore, JERA raises awareness of these policies through a training system, the Legal Group monitors and supervises related processes and operations, and the Compliance Committee receives reports on these and other efforts.

In addition, our due diligence efforts to prevent corruption in transactions will be focused on transactions and M&A in countries and regions with high corruption indices, ensuring that we will not assume any unforeseen corruption risks.

#### Basic Policy on Anti-Corruption

##### (Excerpted from the JERA Group Compliance Code of Conduct)

- We always maintain proper and healthy relationships with our business partners, and do not provide them with money, gifts, entertainment, or any other economic benefits that exceed good judgment. We do not receive any economic benefits that exceed good judgment.
- In our procurement activities, we provide open, fair and equal participation opportunities in both domestic and overseas markets and select suppliers through rational and transparent procedures.
- We establish and maintain fair and open relations with the political and governmental counterparts of each country and region in compliance with domestic and international laws and regulations, as well as internal rules.
- We do not entertain, provide gifts, or provide any other economic benefits to public officials or anyone in an equivalent position, domestic or foreign.
- We do not make such payments if we are aware that a portion of the payments made to agents or consultants, or any such parties, is being or is suspected of being diverted for the purpose of engaging in improper activities with public officials or persons in an equivalent position.

### Fair and Just Trade with Suppliers (CSR & ESG Conscious Responsible Procurement)

We uphold the principles of free trade and market competition and conduct our transactions and business activities in compliance with laws and regulations as well as with the principles of fairness and impartiality. As a power producer, we are firmly committed to promoting appropriate electric power competition, most notably by operating in compliance with the Guidelines for Proper Electric Power Trade and by ensuring non-discrimination between domestic and foreign entities. As a purchaser supporting the energy value chain, we engage with business partners and subcontractors in accordance with the Declaration of Partnership Building, fostering partnerships and co-prosperity. In addition, in an attempt to prevent cartel and bid-rigging with competitors, we newly established Internal Rules on Contact with Competitors in FY2023.

We have also established the Procurement Policy and are committed to responsible materials procurement activities in consideration of corporate social responsibility (CSR) and environmental, social, and governance (ESG), including quality assurance, appropriate procurement cost management, compliance with laws and corporate ethics, safety assurance, and business continuity planning (BCP). In addition, we hold procurement policy briefing sessions to promote mutual study and close communication with business partners, taking opinions and requests into account while seeking cooperation with the JERA Group Compliance Policy and Code of Conduct, thereby endeavoring to build even stronger relationships of trust with our business partners.



Procurement Policy  
<https://www.jera.co.jp/en/corporate/business/procurement/>



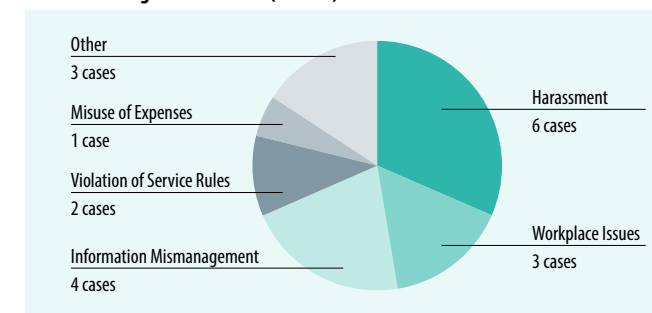
Declaration of Partnership Building  
<https://www.jera.co.jp/en/sustainability/compliance/partner/>

### Whistleblower System and Harassment Consultation Hotline

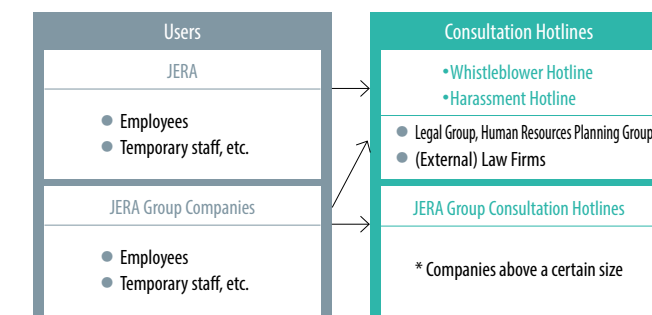
We have established a whistleblower hotline to prevent compliance violations and quickly detect and resolve any violations that do arise. The hotline can be accessed either anonymously or using your real name, via e-mail or postal mail, and allows communication with both internal and external contacts. A wide range

of topics, including domestic and foreign law violations, as well as violations of employment regulations and internal rules, can be discussed via the hotline. As of FY2021, we have a new harassment consultation service specifically established for discussing or reporting harassment and other work-related issues. In FY2023, a total of 19 cases were reported through the whistleblower hotline and 25 cases through the harassment consultation hotline.

#### Whistleblowing Case Overview (FY2023)



In response to the enactment of the amended Whistleblower Protection Act in 2022, JERA has established internal reporting channels via its whistleblower and harassment consultation hotlines, which include designating and providing training for a whistleblower response team. JERA promotes the use of these internal reporting channels by continuing to share information about the whistleblower system regularly and seeking to build trust through efforts such as assessment of intention, protection of confidentiality, and prohibition of discriminatory treatment or retaliation against whistleblowers.





## A Word from the Head of the Legal Group



**Sawako Ohgi**  
Head of the Legal Group

At JERA, we place compliance alongside safety as a top priority. By maintaining compliance, we protect our colleagues and families.

Top management has repeatedly communicated and engaged in dialogue with employees, stressing that compliance is not a difficult matter but rather about considering the perspectives and feelings of others—whether they are customers, business partners, investors, or colleagues. Compliance is not simply about following laws and internal rules; it's about putting yourself in others' shoes, refraining from actions you wouldn't want done to you, and always taking a moment to think about how your words and actions might affect others and contribute to the well-being of your colleagues and family.

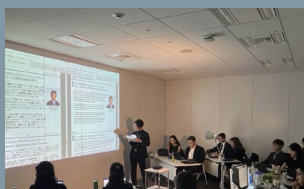
Naturally, compliance involves all of our group companies, every workplace, and everyone from management to employees; the compliance unit cannot handle this task alone. The Legal Group also seeks to build a compliance-oriented corporate culture through actions such as sharing information and providing training to support voluntary engagement in compliance.

In recent years, the domestic electric power and energy industry has seen a spate of compliance-related issues. We take this trend very seriously. Concerning our core domestic business in electricity and gas, we have taken the initiative to establish the JERA Transaction Monitoring Committee (details are as follows) to continuously incorporate insights from external experts. Because laws, regulations, and customs differ from region to region, we consult with local experts to develop appropriate compliance systems when developing our global businesses.

We remain conscious of our great social responsibility as a public utility company and will continue to set compliance as a top priority in our business operations.



Discussions with domestic power plants



Discussions with major overseas subsidiaries and others

## JERA Transaction Monitoring Committee

### Establishment of the JERA Transaction Monitoring Committee

We respect market competition, abide by laws and regulations, and conduct transactions and business activities fairly and equitably, enabling us to continue acting in a manner that befits our responsibilities as an energy company providing electricity and gas in Japan.

The JERA Transaction Monitoring Committee, which includes outside experts, was established in June 2023 under the direct supervision of the President, Director, CEO and COO to confirm and verify such transactions and activities from a third-party perspective to further enhance transparency.

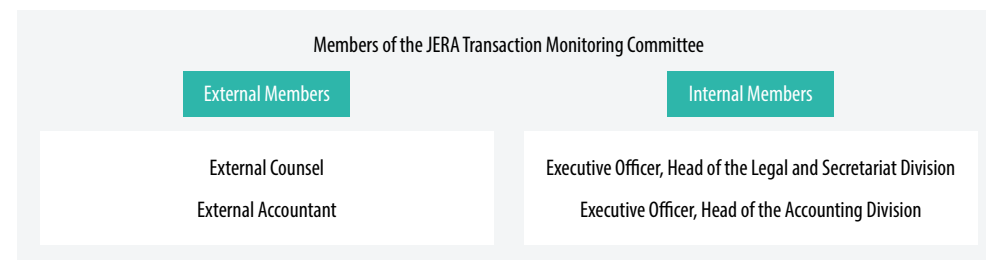


### Scope of Activities

- To check the legality and appropriateness of wholesale electricity and gas market transactions
- To check the internal vs. external non-discrimination and appropriateness of Power Purchase Agreements and Gas Sale Agreements
- To check the legality and appropriateness of other transactions (including transactions with shareholders) under competition and business laws

### Structure

(as of July 1, 2024)



With the establishment and operation of this committee, we will lead the way in creating a market for fair and equitable electricity and gas transactions in Japan. At the same time, by further promoting fair and equitable transactions, we will ensure that business profits are passed on through market competition to the end consumer—our valued customers.

## SECTION Data

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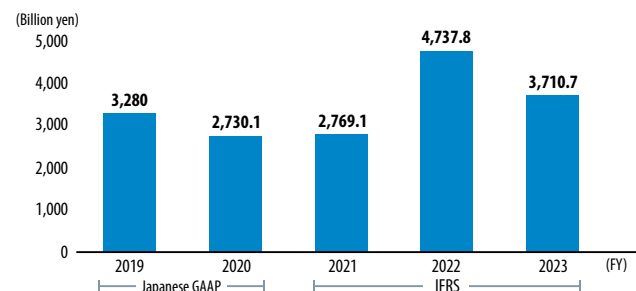
# Financial and Non-Financial Highlights

JERA has set management goals related to profitability, capital efficiency, growth, and financial soundness, aiming for specific outcomes by FY2025 (announced in May 2022) and for target levels by FY2035 (announced in May 2024), and we are making progress on various initiatives to meet these objectives.

In addition, with a fundamental emphasis on safety, we shall expedite our ESG and sustainability efforts, which include promoting the active participation of a diverse and inclusive workforce (D&I) and strengthening corporate governance, all while ensuring a stable supply of electricity. We aim to realize medium- to long-term decarbonization, thereby pursuing disciplined growth and maximizing corporate value. We have voluntarily adopted the International Financial Reporting Standards (IFRS) from the consolidated financial statements for the annual reporting of FY2022, and the figures for FY2021 have also been modified in accordance with the IFRS.

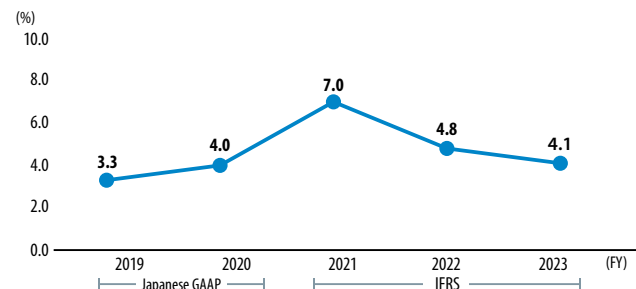
## Financial Information

### Revenue



Revenue for FY2023 was 3,710.7 billion yen, a decrease of 1,027.1 billion yen (-21.7%) from the previous year, due to factors such as a decline in the volume of electricity sold.

### ROIC



The main reason for the decrease in income in FY2023 compared with the previous year was a decrease in net income, excluding time lag.

$ROIC = \{ \text{Net profit}^{*1} + \text{Interest expense} \times (1 - \text{Effective tax rate}^{*2}) \} \div \{ \text{Interest-bearing liabilities}^{*3} + \text{Net worth}^{*4} \}^{*5}$

\*1 Excluding time lag

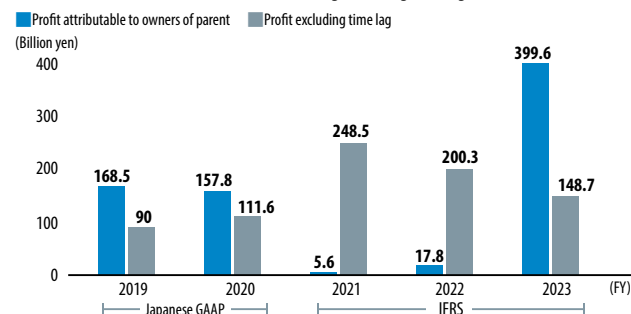
\*2 Using the company's effective tax rate (figures listed in the Financial Statement)

\*3 Net cash after deducting working capital

\*4 Equity – Non-controlling interests

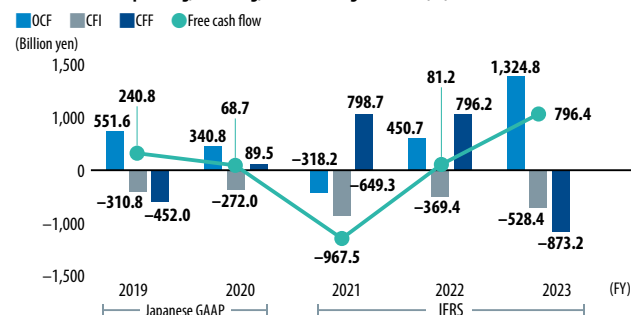
\*5 Average at the beginning and end of the period

### Profit Attributable to Owners of Parent (including/excluding time lag)



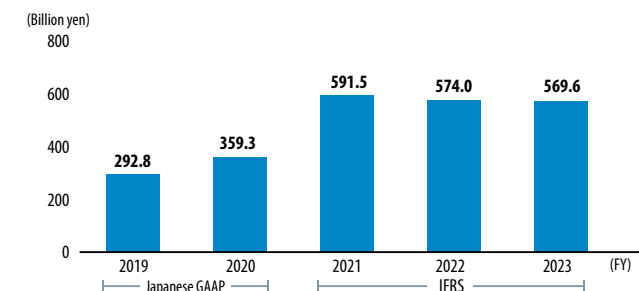
Net profit for FY2023, excluding time lag, decreased despite increased profits from the overseas power generation and renewable energy business and improvements in valuation gains and losses on coal and other contracts at the end of the period. This decrease was due to factors such as the impact of fuel procurement prices, the unit cost of fuel inventory at the beginning of the period, and a decline in profits from the fuel business.

### Cash Flows from Operating, Investing, and Financing Activities (CF) / Free Cash Flow



In FY2023, operating cash flow increased by 874.1 billion yen compared with the previous year, driven by factors such as an increase in pre-tax profit due to the improvement of time lag-related gains and losses, as well as decreases in accounts receivable and inventory. Investment cash flow increased by 159 billion yen compared with the previous year due to increased expenditures related to the acquisition of affiliated companies. Free cash flow increased by 715.1 billion yen.

### EBITDA

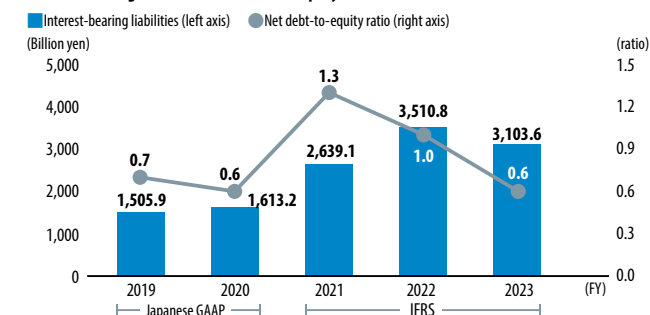


In FY2023, EBITDA remained high due to increased depreciation and amortization and interest expenses, despite a decrease in pre-tax profit compared with the previous year.

EBITDA = Earnings before interest and taxes\* + Depreciation and amortization + Interest expenses

\*Excluding time lag

### Interest-Bearing Liabilities / Net Debt-to-Equity Ratio



The balance of interest-bearing liabilities in FY2023 decreased compared with the previous year due to a reduction in borrowings. As a result, the net debt-to-equity ratio also improved by a factor of 0.6.

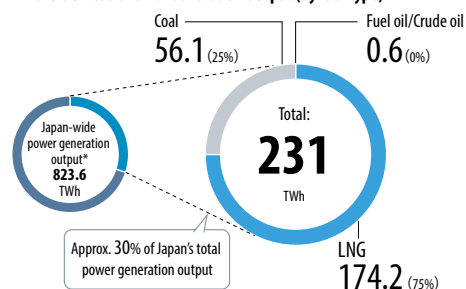
Net debt-to-equity ratio = (Interest-bearing liabilities – Cash and deposits) ÷ Net worth\*

\* Equity — Non-controlling interests

# Financial and Non-Financial Highlights

## Non-Financial Information

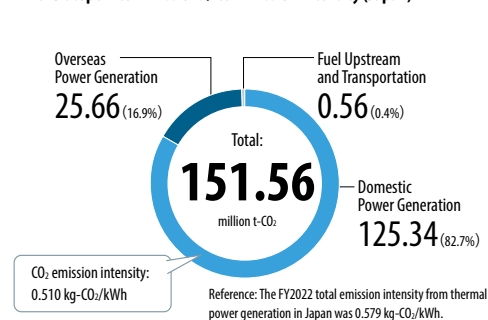
### FY2023 Domestic Power Generation Output (by fuel type)



We are responsible for approximately 30% of the power generation output by domestic electric utilities. A large portion of this power generation comes from LNG, which has low CO<sub>2</sub> emissions.

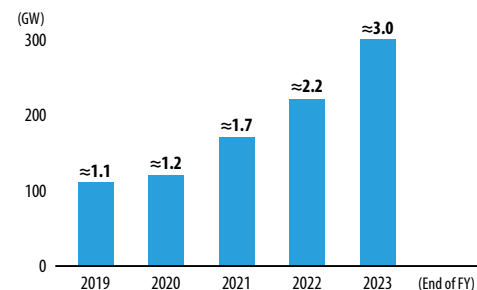
Source: Agency for Natural Resources and Energy website as published on June 14, 2024 ([https://www.enecho.meti.go.jp/statistics/electric\\_power/ep002/](https://www.enecho.meti.go.jp/statistics/electric_power/ep002/) [Japanese])

### FY2023 Scope 1 CO<sub>2</sub> Emissions / CO<sub>2</sub> Emission Intensity (Japan)



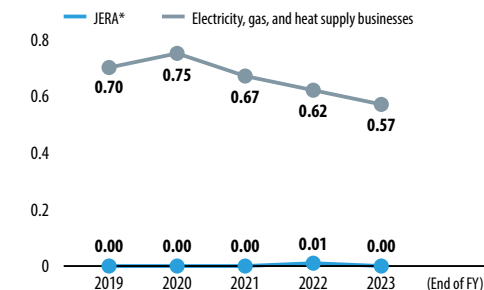
As part of the JERA Environmental Target 2035, we aim to reduce domestic CO<sub>2</sub> emissions relative to FY2013 by more than 60% by FY2035.

### Renewable Energy Output Share



Our Center of Excellence (COE) in Europe and local teams will work closely together to develop wind and solar power projects on a global scale.

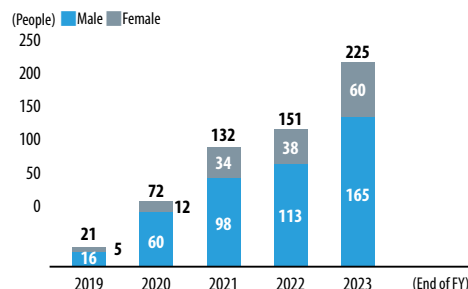
### Employee Injury Frequency Rate



We are committed to company-wide efforts for safety, the bedrock of our business, with aims to eradicate occupational accidents.

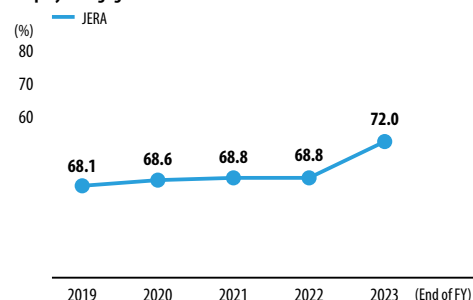
\*JERA employees only

### Number of Mid-Career Hires (by gender)



We are actively hiring people with diverse backgrounds and advanced expertise not yet represented at JERA. With the demand for agile matching of talent to business strategy, the number of mid-career hires is showing an annual upward trend as each business evolves.

### Employee Engagement Rate



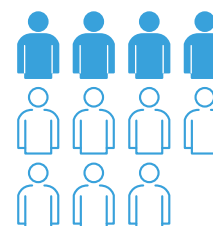
We conduct employee satisfaction surveys to gain a quantitative understanding of employee opinions about their work and job fulfillment. In FY2023, the rate was 72.0%, an improvement of 3.2 points from the previous fiscal year.

### Number of Outside Directors

As of July 1, 2024

Independent Outside Directors

4  
11



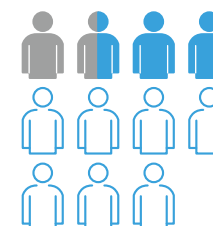
In addition to JERA-employed executive directors and directors who have come from our shareholder companies, we hire outside directors in order to create an autonomous and independent corporate culture and a management structure that enables fair and prompt decision-making.

### Diversity on the Board of Directors

As of July 1, 2024

Diversity on the Board of Directors

Female: 2 Foreign Nationals: 3  
11



We believe that a diverse Board of Directors leads to better business decision-making and have made efforts to appoint female directors and foreign nationals to the board.



# Financial Data

Unit: Millions of Yen

		FY2019 (Japanese GAAP)	FY2020 (Japanese GAAP)		FY2021 (IFRS)	FY2022 (IFRS)	FY2023 (IFRS)
<b>Profit and Loss Statement (P&amp;L) Information</b>							
	Net sales (operating revenue)	3,280,002	2,730,146	Revenue	2,769,127	4,737,870	3,710,727
	Operating profit	167,008	249,438	Operating profit	39,718	138,301	563,412
	Ordinary profit	174,429	244,194				
	Profit before income taxes	195,386	227,818	Profit before tax	38,612	102,264	577,450
	Profit attributable to owners of parent	168,543	157,852	Net profit attributable to owners of parent	5,676	17,847	399,628
(P&L by segment)	Fuel Business	Net sales	864,708	Revenue	454,728	585,731	407,498
		Segment profit (loss)	25,094	Net profit (loss)	146,137	201,313	132,691
	Overseas power generation and renewable energy business <sup>2</sup>	Net sales	2,180	Revenue	4,166	8,673	52,564
		Segment profit (loss)	36,126	Net profit (loss)	(34,779)	(6,695)	33,759
	Domestic thermal power generation and gas business	Net sales	2,926,760	Revenue	3,118,347	6,153,470	4,424,212
		Segment profit (loss)	135,814	Net profit (loss)	(121,438)	(96,888)	255,377
	Adjusted	Net sales	(513,647)	Revenue	(808,114)	(2,010,005)	(1,173,548)
		Segment profit (loss)	(28,492)	Net profit (loss)	15,757	(79,881)	(22,199)
		Depreciation and amortization	197,940	Depreciation and amortization	202,882	214,786	289,700
		Capital expenditures	244,541	Capital expenditures	339,948	378,592	409,196
		Research and development costs	1,433	Research and development costs	1,079	1,566	1,347
		Domestic thermal power generation and gas business	177	Domestic thermal power generation and gas business	106	184	148
		Other	1,255	Other	973	1,381	1,198
<b>Financial Condition Information</b>							
	Total assets	4,035,324	4,090,880	Total assets	8,495,106	9,172,358	8,508,134
	Total net assets	1,601,267	1,762,120	Equity	1,731,664	2,039,705	2,658,618
	Net worth	1,540,522	1,686,194	Equity attributable to owners of parent	1,724,859	2,022,874	2,632,639
	Interest-bearing liabilities	1,505,957	1,613,291	Interest-bearing liabilities	2,639,128	3,510,822	3,103,655
<b>Cash Flow Information</b>							
	Cash flows from operating activities	551,670	340,825	Cash flows from operating activities	(318,202)	450,710	1,324,889
	Cash flows from investing activities	(310,863)	(272,092)	Cash flows from investing activities	(649,330)	(369,452)	(528,473)
	Cash flows from financing activities	(452,054)	89,542	Cash flows from financing activities	798,713	796,236	(873,260)
	Free cash flow	240,807	68,733	Free cash flow	(967,533)	81,258	796,416
	Cash and cash equivalents at the end of the period	402,431	561,685	Cash and cash equivalents at the end of the period	456,430	1,360,906	1,405,387
<b>Key Financial Indicators</b>							
	Net profit <sup>3</sup>	90,082	111,629	Net profit attributable to owners of parent <sup>3</sup>	248,594	200,336	148,719
	EBITDA <sup>4</sup>	292,812	359,305	EBITDA <sup>4</sup>	591,599	574,045	569,665
	Return on invested capital (ROIC) (%) <sup>5</sup>	3.3	4.0	Return on invested capital (ROIC) (%) <sup>5</sup>	7.0	4.8	4.1
	Return on equity (ROE) (%) <sup>6</sup>	8.5	6.9	Return on equity (ROE) (%) <sup>6</sup>	14.6	10.3	6.3
	Net debt-to-equity ratio <sup>7</sup>	0.7	0.6	Net debt-to-equity ratio <sup>7</sup>	1.3	1.0	0.6
	Net debt-to-EBITDA ratio <sup>8</sup>	3.6	2.8	Net debt-to-EBITDA ratio <sup>8</sup>	3.7	3.7	2.9
<b>Other</b>							
	Credit ratings	S&P A-, R&I A+, JCR AA-	S&P A-, R&I A+, JCR AA-	Credit ratings	S&P A-, R&I A+, JCR AA-	S&P A-, R&I A+, JCR AA-	S&P A-, R&I A+, JCR AA-

(1) JERA has voluntarily adopted the International Financial Reporting Standards (IFRS) from the consolidated financial statements for the annual reporting of FY2022, and the figures for FY2021 have also been modified in accordance with the IFRS. (2) Effective from the first quarter of FY2023, the name of the reportable segment previously referred to as "Overseas Power Generation Business" has been changed to "Overseas Power Generation and Renewable Energy Business" following a review of business management. (3) Excluding time lag (4) EBITDA = Earnings before interest and taxes\* + Depreciation and amortization + Interest expenses \*Excluding time lag (5) ROIC = (Net profit\*<sup>1</sup> + Interest expense × (1 – Effective tax rate\*<sup>2</sup>)) ÷ (Interest-bearing liabilities\*<sup>3</sup> + Net worth\*<sup>4</sup>) \*<sup>1</sup> Excluding time lag \*<sup>2</sup> Using the company's effective tax rate (figures listed in the Financial Statement)

\*<sup>3</sup> Net cash after deducting working capital \*<sup>4</sup> Equity — Non-controlling interests \*<sup>5</sup> Average at the beginning and end of the period (6) ROE = Net profit\*<sup>1</sup> ÷ Net worth\*<sup>2</sup> \*<sup>1</sup> Excluding time lag \*<sup>2</sup> Average at the beginning and end of the period (7) Net debt-to-equity ratio = (Interest-bearing liabilities – Cash and deposits) ÷ Net worth\* \*Equity — Non-controlling interests (8) Net Debt / EBITDA = (Interest-bearing liabilities – Cash and deposits) ÷ EBITDA\* \*Excluding time lag

## Power Sold / Power Generated

		FY2019	FY2020	FY2021	FY2022	FY2023
Power sold (billion kWh)		265.7	246.6	255.5	255.1	236.2
Power generated (billion kWh)	LNG	215.6	201.5	192.3	178.4	174.2
	Coal	48.4	43.2	55.0	56.7	56.1
	Fuel oil/Crude oil	1.3	0	0	0	0.6
	Total	265.3	244.6	247.3	235.1	230.9

## Major Facility Plans

(As of March 31, 2024)

Company	Segment	Location	Output (MW)	Start of Construction	Start of operation
Goi United Generation LLC.	Domestic thermal power generation and gas	Goi Units 1, 2, 3	780 x 3	April 2021	August/November 2024, March 2025

# Non-Financial Data

## Environmental Data

Item	Unit	FY2020	FY2021	FY2022	FY2023
Domestic / JERA <sup>*1</sup>					
Installed capacity by source <sup>*2,*3</sup>	MW	66,126	59,893	57,210	57,330
Coal	MW	7,950	7,950	9,020	10,320
Gas	MW	48,126	42,943	43,590	44,884
Renewable Energy	MW	—	—	0.04	126
Others	MW	10,050	9,000	4,600	2,000
Average operating life of power generation facilities <sup>*2</sup>	Years	33	30	28	29
Coal	Years	17	18	17	15
Gas	Years	33	29	29	29
Others	Years	43	43	38	42
Operational rate of power generation facilities (availability) <sup>*4</sup>	%	87.5	87.6	87.9	82.2
Coal	%	85.2	88.3	83.8	74.4
Gas	%	87.9	87.5	88.9	84.1
Total thermal power generation efficiency (low heating value)	%	49.7	49.2	48.7	48.7
Coal	%	41.1	42.1	40.5	40.0
Gas	%	51.8	51.7	52.1	54.1
Thermal Power Generation Efficiency Benchmark A (Energy Conservation Act) <sup>*5</sup>	—	1.000	1.003	1.007	1.004
Thermal Power Generation Efficiency Benchmark B (Energy Conservation Act) <sup>*5</sup>	%	46.8	46.7	46.8	—
Coal-fired Power Generation Efficiency Index (Energy Conservation Act) <sup>*5</sup>	%	—	—	40.8	40.5
Fuel consumption					
Coal <sup>*6</sup>	million t	16	20	21	20
Oil	million kl	0.05	0.04	0.04	0.22
LNG & LPG	million t	27	26	24	23
Natural gas	billion Nm <sup>3</sup>	2	2	2	2
Biomass <sup>*7</sup>	million t	0.4	0.4	0.5	0.5
Net electricity generation (sending-end power) <sup>*3</sup>	billion kWh	245	247	235	231
Gas sales volume	million t	3	4	4	4
Total energy consumption (crude oil equivalent)	million kl	51	51	50	48
Purchased electricity	million kWh	162	86	73	180
Greenhouse gas (GHG) emissions associated with power generation business (Scope 1) <sup>*8</sup>	thousand t-CO <sub>2</sub>	114,952	121,098	118,694	113,756
CO <sub>2</sub> emissions	thousand t-CO <sub>2</sub>	114,833	120,948	118,546	113,384
CH <sub>4</sub> (methane) emissions	thousand t-CO <sub>2</sub>	11	11	16	30
N <sub>2</sub> O (nitrous oxide) emissions	thousand t-CO <sub>2</sub>	101	119	125	310
SF <sub>6</sub> (sulfur hexafluoride) emissions <sup>*9</sup>	thousand t-CO <sub>2</sub>	6	23	7	8
HFC (CFC alternative) emissions <sup>*9</sup>	thousand t-CO <sub>2</sub>	0.4	0.3	0.7	24.5
CO <sub>2</sub> emissions associated with purchased electricity consumption (Scope 2) <sup>*10</sup>	thousand t-CO <sub>2</sub>	77	38	56	70
Other indirect CO <sub>2</sub> emissions (Scope 3)	thousand t-CO <sub>2</sub>	30,551	32,187	31,878	31,709
Category 1: Purchased goods and services	thousand t-CO <sub>2</sub>	117	114	130	162
Category 2: Capital goods <sup>*11</sup>	thousand t-CO <sub>2</sub>	729	467	1,309	1,365
Category 3: Fuel- and energy-related activities not included in Scope 1 or Scope 2 <sup>*11</sup>	thousand t-CO <sub>2</sub>	21,083	21,034	20,035	19,297
Category 4: Upstream transportation and distribution	thousand t-CO <sub>2</sub>	21	28	29	34
Category 5: Waste generated in operations	thousand t-CO <sub>2</sub>	171	219	232	205
Category 6: Business travel	thousand t-CO <sub>2</sub>	0.6	0.6	0.6	0.6
Category 7: Employee commuting	thousand t-CO <sub>2</sub>	1	2	2	2
Category 8: Upstream leased assets	thousand t-CO <sub>2</sub>	—	—	—	—
Category 9: Downstream transportation and distribution	thousand t-CO <sub>2</sub>	—	—	—	—
Category 10: Processing of sold products	thousand t-CO <sub>2</sub>	—	—	—	—
Category 11: Use of sold products	thousand t-CO <sub>2</sub>	8,428	10,323	10,142	10,643
Category 12: End-of-life treatment of sold products	thousand t-CO <sub>2</sub>	—	—	—	—
Category 13: Downstream leased assets	thousand t-CO <sub>2</sub>	—	—	—	—
Category 14: Franchises	thousand t-CO <sub>2</sub>	—	—	—	—
Category 15: Investments	thousand t-CO <sub>2</sub>	—	—	—	—
CO <sub>2</sub> emission intensity of power generation <sup>*3,*12</sup>	kg-CO <sub>2</sub> /kWh	0.469	0.489	0.504	0.491
SF <sub>6</sub> (sulfur hexafluoride) capture rate (at time of inspection)	%	99.9	99.5	99.5	100.0
SF <sub>6</sub> (sulfur hexafluoride) capture rate (at time of disposal)	%	99.4	99.0	100.0	100.0
SOx (sulfur oxides) emissions	thousand t	5	6	7	6
SOx (sulfur oxides) emission intensity <sup>*3,*12</sup>	g/kWh	0.02	0.03	0.03	0.03
NOx (nitrogen oxides) emissions	thousand t	18	18	17	15
NOx (nitrogen oxides) emission intensity <sup>*3,*12</sup>	g/kWh	0.07	0.07	0.07	0.07

Item	Unit	FY2020	FY2021	FY2022	FY2023
Total water intake	thousand m <sup>3</sup>	18,696	19,147	20,177	21,246
Industrial water intake	thousand m <sup>3</sup>	17,712	18,165	19,038	19,299
Tap water intake	thousand m <sup>3</sup>	809	864	985	1,885
Groundwater intake	thousand m <sup>3</sup>	176	118	153	62
Water withdrawal from water-stressed areas	thousand m <sup>3</sup>	0	0	0	0
Gross wastewater volume	thousand m <sup>3</sup>	7,506	7,188	7,296	10,682
COD (chemical oxygen demand) emissions	t	20	20	21	30
Total waste, etc.	thousand t	2,045	2,715	3,082	2,867
Industrial waste, etc.	thousand t	2,044	2,714	3,077	2,866
Specially controlled industrial waste (hazardous waste)	thousand t	0.7	0.4	4.1	0.7
Total waste recycled, etc.	thousand t	—	—	—	2,844
Recycled industrial waste, etc.	thousand t	—	—	—	2,843
Recycled specially controlled industrial waste (hazardous waste)	thousand t	—	—	—	0.7
Waste to landfill	thousand t	13	19	18	19
Coal ash utilization rate	%	99.99	99.99	99.98	99.99
Coal ash generated	thousand t	1,584	2,206	2,578	2,278
Coal ash recycled	thousand t	1,583	2,206	2,577	2,278
Gypsum utilization rate	%	99.94	99.21	99.85	99.62
Gypsum generated	thousand t	380	482	535	523
Gypsum recycled	thousand t	380	478	535	521
Soot and dust disposal volume	thousand t	1,351	1,918	2,116	1,985
Number of severe leaks	Cases	0	0	0	0
Number of disposed PCB (polychlorinated biphenyl) transformers and capacitors	Units	57	78	43	86
Volume of treated PCB-contaminated insulating oil	kl	510	25	383	140
Number of fines or sanctions for violations of environmental laws and regulations	Cases	0	0	0	0
Domestic / JERA Group <sup>*13</sup>					
Installed capacity by source <sup>*2,*3</sup>	MW	68,915	62,682	59,998	60,119
Coal	MW	10,739	10,739	11,809	13,109
Gas	MW	48,126	42,943	43,590	44,884
Renewable Energy	MW	—	—	0	126
Others	MW	10,050	9,000	4,600	2,000
Fuel consumption					
Coal <sup>*6</sup>	million t	21	24	25	24
Oil	million kl	0.2	0.2	0.2	0.3
LNG&LPG	million t	27	26	24	23
Natural gas	billion Nm <sup>3</sup>	2	2	2	2
Blast furnace gas/coke oven gas	billion Nm <sup>3</sup>	3	6	5	5
Biomass <sup>*7</sup>	million t	0.4	0.4	0.5	0.5
Net electricity generation (sending-end power) <sup>*3</sup>	billion kWh	260	261	247	246
Purchased electricity	million kWh	162	86	73	187
Greenhouse gas (GHG) emissions associated with power generation business (Scope 1) <sup>*8</sup>	thousand t-CO <sub>2</sub>	127,573	131,925	128,552	125,737
CO <sub>2</sub> emissions	thousand t-CO <sub>2</sub>	127,437	131,759	128,391	125,336
CH <sub>4</sub> (methane) emissions	thousand t-CO <sub>2</sub>	11	11	16	31
N <sub>2</sub> O (nitrous oxide) emissions	thousand t-CO <sub>2</sub>	119	132	136	338
SF <sub>6</sub> (sulfur hexafluoride) emissions <sup>*9</sup>	thousand t-CO <sub>2</sub>	6	23	8	8
HFC (CFC alternative) emissions <sup>*9</sup>	thousand t-CO <sub>2</sub>	0.4	0.3	0.7	24.5
CO <sub>2</sub> emissions associated with purchased electricity consumption (Scope 2) <sup>*10</sup>	thousand t-CO <sub>2</sub>	79	40	60	73
Other indirect CO <sub>2</sub> emissions (Scope 3)	thousand t-CO <sub>2</sub>	31,918	34,039	33,481	33,319
Category 1: Purchased goods and services	thousand t-CO <sub>2</sub>	123	122	140	168
Category 2: Capital goods <sup>*11</sup>	thousand t-CO <sub>2</sub>	752	498	1,339	1,375
Category 3: Fuel- and energy-related activities not included in Scope 1 or Scope 2 <sup>*11</sup>	thousand t-CO <sub>2</sub>	22,379	22,814	21,567	20,855
Category 4: Upstream transportation and distribution	thousand t-CO <sub>2</sub>	33	36	37	40
Category 5: Waste generated in operations	thousand t-CO <sub>2</sub>	200	243	254	233
Category 6: Business travel	thousand t-CO <sub>2</sub>	0.6	0.6	0.7	0.7
Category 7: Employee commuting	thousand t-CO <sub>2</sub>	2	2	2	2
Category 8: Upstream leased assets	thousand t-CO <sub>2</sub>	—	—	—	—
Category 9: Downstream transportation and distribution	thousand t-CO <sub>2</sub>	—	—	—	—
Category 10: Processing of sold products	thousand t-CO <sub>2</sub>	—	—	—	—
Category 11: Use of sold products	thousand t-CO <sub>2</sub>	8,428	10,323	10,142	10,643
Category 12: End-of-life treatment of sold products	thousand t-CO <sub>2</sub>	—	—	—	—
Category 13: Downstream leased assets	thousand t-CO <sub>2</sub>	—	—	—	—

## Non-Financial Data

### Environmental Data

Item	Unit	FY2020	FY2021	FY2022	FY2023
Category 14: Franchises	thousand t-CO <sub>2</sub>	—	—	—	—
Category 15: Investments	thousand t-CO <sub>2</sub>	—	—	—	—
CO <sub>2</sub> emission intensity of power generation <sup>*3</sup> × <sup>*12</sup>	kg-CO <sub>2</sub> /kWh	0.491	0.505	0.519	0.510
Global / JERA Group <sup>*14</sup>					
Installed capacity by source <sup>*2</sup> × <sup>*3</sup>	MW	79,027	73,226	69,678	70,892
Coal	MW	12,233	13,051	13,847	15,302
Gas	MW	55,918	49,820	49,886	51,160
Renewable Energy	MW	682	1,068	1,078	2,145
Others	MW	10,194	9,286	4,887	2,285
CO <sub>2</sub> emissions associated with power generation business (Scope 1)	thousand t-CO <sub>2</sub>	147,915	155,358	153,182	150,993
CO <sub>2</sub> emissions associated with fuel upstream business (Scope 1)	thousand t-CO <sub>2</sub>	348	245	204	275
CO <sub>2</sub> emissions associated with fuel transportation business (Scope 1)	thousand t-CO <sub>2</sub>	327	283	258	287
CO <sub>2</sub> emission intensity of power generation <sup>*3</sup> × <sup>*12</sup>	kg-CO <sub>2</sub> /kWh	0.493	0.512	0.514	0.515

\*1 Calculation boundary (unless otherwise noted): JERA in Japan, Hitachinaka Generation Co., Inc., and JERA Power TAKETOYO LLC, JERA Power Yokosuka LLC, JERA Power Anegasaki LLC

\*2 Calculated based on our own facilities as of the end of the fiscal year (March 31) of the year in which the data was collected. Overseas businesses are calculated based on facilities owned as of the end of the local fiscal year.

\*3 Including data from Green Power Ishikari LLC

\*4 Calculated from the percentage of time excluding planned internal and external outage time

\*5 Figures for JERA operations in Japan

\*6 Totalled on a wet coal basis (ar: as received)

\*7 Totalled on a dry basis (ad: air dried)

\*8 Calculated based on the Act on Promotion of Global Warming Countermeasures.

\*9 Calendar year totals

\*10 Calculated by using the adjusted emission factor for each electric utility published by Ministry of the Environment and Ministry of Economy, Trade and Industry.

From FY2021, part of purchased electricity is replaced by self-transmission, and the emissions associated with self-transmitted electricity are accounted for as Scope 1 emissions.

\*11 Calculated by the formula below in accordance with "Basic guidelines on accounting for greenhouse gas emissions throughout the supply chain(ver.2.6)" on "Green Value Chain Platform (Ministry of the Environment website)"

Category 2: "Increase in book cost of property, plant and equipment (excluding land and construction in progress) and intangible assets (software, etc.)"×"Emission factor 1"

Category 3: "Electricity received from other companies"×"Emission factor 1"+"Fuel consumption"×"Emission factor 2"

"Emission factor 1" Cited from "Emission factor database for corporate GHG emissions accounting over the supply chain (Ver.3.4)" on "Green Value Chain Platform (Ministry of the Environment website)"

"Emission factor 2" IDEA Ver. 3.4 (2024/04/30), taken from IDEA Laboratory, Safety Science Research Division, The National Institute of Advanced Industrial Science and Technology.

\*12 Figures based on net power generation

\*13 Calculation boundary: The calculation boundary of \*11 plus joint venture figures. Joint venture figures calculated based on JERA equity stake

\*14 Calculation boundary: The calculation boundary of \*11 plus totals for overseas businesses. Totals for overseas businesses are generally aggregated based on local fiscal years and reporting standards, and calculated based on JERA equity stake

This data is also available on our corporate website, and starting with values reported for FY2021, we have received third-party assurance from KPMG AZSA Sustainability Co., Ltd., for certain environmental data, including GHG emissions that are disclosed on the website.

WEB  
E Environmental Data  
<https://www.jera.co.jp/en/sustainability/data/e>

WEB  
Independent Assurance Report on Environmental Data  
<https://www.jera.co.jp/en/sustainability/report>

### Social Data

Item	Unit	FY2019	FY2020	FY2021	FY2022	FY2023
Number of employees (JERA consolidated) <sup>*1</sup>	People	4,797	4,907	5,059	5,295	5,838
Number of employees (JERA only) <sup>*2</sup>						
Total	People	3,726	3,847	3,910	4,008	4,167
(full-time employees)	People	—	—	3,900	3,999	4,162
(contract workers)	People	—	—	10	9	5
Male	People	3,452	3,557	3,581	3,638	3,712
(full-time employees)	People	—	—	3,574	3,632	3,710
(contract workers)	People	—	—	7	6	2
Female	People	274	290	329	370	455
(full-time employees)	People	—	—	326	367	452
(contract workers)	People	—	—	3	3	3
Average age (JERA only)						
Total	Age	44.3	44.7	44.6	45.1	44.4
Male	Age	44.5	44.8	44.9	45.6	45.0
Female	Age	41.8	42.2	41.6	40.8	38.9
Number of managers (JERA only) <sup>*3</sup>						
Total	People	689	730	713	841	1,034
Male	People	664	698	677	796	977
Female	People	25	32	36	45	57
Ratio of female managers	%	3.6	4.4	5.0	5.4	5.5
Managers (mid-level) <sup>*4</sup>	People	—	—	—	—	649
Male	People	—	—	—	—	608
Female	People	—	—	—	—	41

### Social Data

Item	Unit	FY2019	FY2020	FY2021	FY2022	FY2023
Ratio of female managers	%	—	—	—	—	6.3
Number of managers (senior level) <sup>*4</sup>	People	—	—	—	—	73
Male	People	—	—	—	—	69
Female	People	—	—	—	—	4
Ratio of female managers	%	—	—	—	—	5.5
Number of managers (executive level)	People	—	—	—	—	20
Male	People	—	—	—	—	18
Female	People	—	—	—	—	2
Ratio of female managers	%	—	—	—	—	10.0
New graduate hires (JERA only) <sup>*5</sup>						
Total	People	50	51	79	92	139
Male	People	43	43	68	62	96
Female	People	7	8	11	29	43
Japanese nationals	People	—	—	78	91	136
Chinese nationals	People	—	—	1	1	2
South Korean nationals	People	—	—	0	0	1
Mid-career hires (JERA only)						
Total	People	21	72	132	151	225
Male	People	16	60	98	113	165
Female	People	5	12	34	38	60
Japanese nationals	People	14	62	125	142	212
Chinese nationals	People	1	3	4	2	7
Indian nationals	People	1	1	0	1	2
Other nationalities	People	5	6	3	6	4
Total turnover rate (JERA only) <sup>*6</sup>						
Total	%	—	—	2.8	3.6	3.8
Male	%	—	—	2.9	3.6	4.1
Female	%	—	—	1.9	3.5	1.3
—29	%	—	—	2.1	3.3	0.7
30–39	%	—	—	1.0	2.3	1.8
40–49	%	—	—	0.7	0.8	0.9
50+	%	—	—	6.6	6.8	8.3
Voluntary turnover rate (JERA only) <sup>*6</sup>						
Total	%	—	—	3.2	2.0	1.8
Male	%	—	—	1.8	1.9	1.9
Female	%	—	—	3.0	3.0	0.7
—29	%	—	—	1.9	3.3	0.7
30–39	%	—	—	1.0	2.3	1.8
40–49	%	—	—	0.7	0.8	0.7
50+	%	—	—	1.9	2.4	3.0
Breakdown of employees by nationality (JERA only)						
Japan	%	99.68	99.30	99.16	99.13	98.82
China	%	0.03	0.11	0.20	0.22	0.38
India	%	0.03	0.05	0.05	0.07	0.10
USA	%	0.00	0.05	0.08	0.07	0.10
UK	%	0.05	0.08	0.05	0.05	0.05
Other <sup>*7</sup>	%	0.21	0.41	0.46	0.46	0.55
Breakdown of managers by nationality (JERA only)						
Japan	%	99.30	98.62	98.46	98.81	98.45
USA	%	0.00	0.14	0.28	0.24	0.22
UK	%	0.14	0.28	0.28	0.24	0.22
India	%	0.00	0.14	0.14	0.12	0.11
China	%	0.00	0.14	0.00	0.00	0.22
Other <sup>*8</sup>	%	0.56	0.68	0.84	0.59	0.78
Employees using childcare leave (JERA only)						
Total	People	5	10	20	89	95
Male	People	0	0	10	56	65
Female	People	5	10	10	33	30
Return-to-work rate after childcare leave (JERA only) <sup>*9</sup>						
Total	%	100.0	100.0	100.0	100.0	100.0
Male	%	—	—	100.0	100.0	100.0
Female	%	100.0	100.0	100.0	100.0	100.0

## Non-Financial Data

### Social Data

Item	Unit	FY2019	FY2020	FY2021	FY2022	FY2023
Gender wage gap (all workers)*10	%	—	—	—	73.6	71.2
Employee engagement*11	%	68.1	68.6	68.8	68.8	72.0
Labor union membership rate	%	100.0	100.0	100.0	100.0	100.0
Average annual training hours per employee*12						
Total	Hours	—	—	32.4	38.3	50.5
(Male)	Hours	—	—	—	33.8	45.2
(Female)	Hours	—	—	—	82.4	93.0
Breakdown by age						
–29	Hours	—	—	—	254.7	271.8
30–39	Hours	—	—	—	11.1	19.2
40–49	Hours	—	—	—	10.3	16.3
50+	Hours	—	—	—	6.3	12.7
Breakdown by job level						
Non-management	Hours	—	—	—	45.5	59.1
Management and above	Hours	—	—	—	11.2	19.2
Average annual training cost per employee						
Total	Thousands of yen	—	—	—	130	193
(Male)	Thousands of yen	—	—	—	124	178
(Female)	Thousands of yen	—	—	—	189	317
Breakdown by age						
–29	Thousands of yen	—	—	—	390	531
30–39	Thousands of yen	—	—	—	178	287
40–49	Thousands of yen	—	—	—	96	161
50+	Thousands of yen	—	—	—	52	47
Breakdown by job level						
Non-management	Thousands of yen	—	—	—	129	178
Management and above	Thousands of yen	—	—	—	135	249
Internal recruitment*13						
Number of positions available	People	—	—	12	41	169
Number of applicants	People	—	—	15	28	84
Number of successful candidates	People	—	—	3	15	52
Percentage of open positions filled through internal recruitment*14	%	—	—	1.0	16.5	24.0
Average hiring cost for full-time employees*15	Thousands of yen	—	—	—	1,838	2,102
Average years of service	Years	—	20.0	20.8	20.6	19.1
Male	Years	—	20.3	21.3	21.3	20.1
Female	Years	—	16.0	15.5	13.8	10.8
Overtime hours (per person per month)	Hours	—	—	25	26	24
Annual days of paid leave taken (per person)	Days	—	—	15	16	17
Number of fatalities*16	People	0	1	0	0	1
Number of injuries requiring leave*17	People	9	22	17	10	11
Employee injury frequency rate*18	%	0.00	0.00	0.00	0.01	0.00
Contribution amounts	Millions of yen	4	780	38	61	79

\*1 Figures from FY2021 onward are compiled in accordance with International Financial Reporting Standards (IFRS)

\*2 Excluding employees on loan from JERA to other companies and including employees on loan to JERA from other companies

\*3 Figures from FY2023 include individuals who have an employment relationship with JERA, including employees on loan. A breakdown for management positions is shown below

\*4 Mid-level managers include general managers and senior managers, each unit. Senior level managers include executive officers, the heads of divisions and groups

\*5 Figures from FY2021 and earlier represent the number of employees initially assigned to JERA from shareholder companies (New graduate hiring began in FY2022)

\*6 Figures include individuals who have an employment relationship with JERA, including employees on loan

\*7 14 countries and regions including the Philippines and South Korea

\*8 7 countries and regions including the Philippines and Australia

\*9 Percentage of employees who returned to work during the fiscal year among all scheduled to return

\*10 Gender wage gap = average annual wage for female ÷ average annual wage for male × 100. In April 2021, JERA introduced its own compensation system. There is no wage gap between male and female employees who share the same attributes (age, position, rank, etc.).

\*11 Employee satisfaction survey on key topics including company, working environment, and job and skill development (including questions on job satisfaction).

\*12 In FY2021, JERA established its own training system that includes off-the-job group training as well as on-the-job technical training at power plants, e-learning, etc.

\*13 Internal recruitment has been conducted since FY2021.

\*14 Percentage of open positions filled through internal recruitment = number of successful internal candidates ÷ number of positions available

\*15 Average of mid-career hires and new graduate hires

\*16 Employees, contractors, and subcontractors of JERA and JERA Group

\*17 Employees, contractors, and subcontractors of JERA and JERA Group; leave of one day or more

\*18 Excluding commuting accidents

### Governance Data

Item	Unit	FY2019	FY2020	FY2021	FY2022	FY2023
Number of customer privacy complaints, etc.*1	Cases	0	0	0	0	0
Number of compliance violations*2	Cases	0	0	0	0	0
Number of reports via the harassment consultation hotline	Cases	—	—	12	13	25
Number of reports via the whistleblower hotline*3	Cases	12	12	17	13	19
Number of data leaks	Cases	0	0	0	0	0
Composition of the Board of Directors						
Number of directors	People	10	10	10	9	11
Number of outside directors	People	4	5	5	4	6
Ratio of outside directors (number of outside directors ÷ number of directors)	%	40.0	50.0	50.0	44.0	54.5
Number of independent outside directors*4	People	—	—	—	—	4
Ratio of independent outside directors (number of independent outside directors ÷ number of directors)	%	—	—	—	—	36.3
Number of female directors	People	0	0	1	1	2
Ratio of female directors (number of female directors ÷ number of directors)	%	0.0	0.0	10.0	11.0	18.2
Number of executive officers (excluding those who are also directors)	People	11	12	10	13	20
Number of female executive officers	People	0	0	0	1	2
Ratio of female executive officers (number of female executive officers ÷ number of executive officers)	%	0.0	0.0	0.0	7.7	10.0
Average age of directors	Age	60.4	60.1	61.3	62.1	62.1
Director age limit	Age	None	None	None	None	None
Age of youngest director	Age	49	50	57	58	54
Age of oldest director	Age	69	68	69	70	71
Term of office for directors	Years	1	1	1	1	1
Average tenure of each director	Years	1.1	1.9	2.0	3.1	2.6
Term of office for executive officers	Years	1	1	1	1	1
Number of board meetings	Meetings	15	23	26	26	23
Attendance rate at board meetings*5	%	97.3	99.1	96.5	95.9	94.6
Attendance rate among outside directors*6	%	93.3	99.1	96.9	93.9	90.3
Director compensation						
Number of directors paid	People	8	8	8	8	10
Total amount of compensation (total amount paid to directors among those compensated)	Millions of yen	334	278	312	311	314
Number of corporate auditors	People	3	3	3	3	3
Number of outside corporate auditors	People	3	3	3	3	2
Ratio of outside corporate auditors (number of outside corporate auditors ÷ number of corporate auditors)	%	100.0	100.0	100.0	100.0	66.7
Number of statutory auditor panel meetings	Meetings	20	17	20	27	37
Attendance rate at statutory auditor panel meetings*7	%	100.0	100.0	100.0	100.0	99.1
Attendance rate of corporate auditors at board meetings*8	%	100.0	100.0	98.7	100.0	96.0
Number of Nomination and Compensation Committee members	People	5	5	4	4	4
Number of outside directors	People	2	2	2	2	2
Ratio of outside directors	%	40.0	40.0	50.0	50.0	50.0
Committee meetings	Meetings	6	7	9	10	8
Committee meeting attendance rate*9	%	100.0	100.0	100.0	100.0	100.0
Sustainability Promotion Committee members	People	10	10	10	9	10
Number of Committee meetings	Meetings	1	2	2	3	5

\*1 Categorized by (i. and ii.) below: i. complaints received from outside parties and substantiated by the organization; ii. complaints from regulatory bodies.

\*2 Noncompliance that constitutes misconduct equivalent to a crisis or emergency

\*3 Two cases in FY2021 overlapped between the whistleblower and harassment consultation hotlines and are included in current figures

\*4 Confirmed from FY2023 onward due to the establishment of independence criteria in October 2023

\*5 [Number of board meetings attended by directors × number of directors] ÷ [number of board meetings held × number of directors]

\*6 [Number of board meetings attended by outside directors × number of outside directors] ÷ [number of board meetings held × number of outside directors]

\*7 [Number of Statutory Auditor Panel meeting attended by corporate auditors × number of corporate auditors] ÷ [number of Statutory Auditor Panel meeting held × number of corporate auditors]

\*8 [Number of meetings attended by auditors × number of auditors] ÷ [number of board meetings held × number of auditors]

\*9 Aggregate number of committee members in attendance at all meetings ÷ [number of committee members × number of committee meetings held]



# Corporate Overview

Corporate Name	JERA Co., Inc.
Locations	<p>Headquarters Nihonbashi Takashimaya Mitsui Building 25th Floor 2-5-1 Nihonbashi Chuo-ku, Tokyo 103-6125 Japan TEL: +81-3-3272-4631(Main) FAX: +81-3-3272-4635</p> <p>East Japan Branch Hibiya Kokusai Building 9th Floor 2-2-3 Uchisaiwai-cho Chiyoda-ku, Tokyo 100-0011 Japan TEL: +81-3-3272-4631 FAX: +81-3-6363-5781</p> <p>West Japan Branch JP TOWER NAGOYA 18th Floor 1-1-1 Meieki, Nakamura-ku Nagoya-shi, Aichi 450-6318 Japan TEL: +81-52-740-6842 FAX: +81-52-740-6841</p>
Incorporated	April 30, 2015
Capital	100 billion yen
Shareholding Ratio	TEPCO Fuel & Power, Inc.: 50% Chubu Electric Power Co., Inc.: 50%
Description of Business	<ul style="list-style-type: none"> <li>● Thermal power generation</li> <li>● Renewable energy</li> <li>● Gas and LNG</li> <li>● Engineering, consulting, and other activities related to the above businesses</li> </ul>
Number of Employees	5,838 (as of March 31, 2024)

## You can also access the latest information about JERA from your computer or smartphone.

Corporate Website: <https://www.jera.co.jp/en/>  
 Company Information: <https://www.jera.co.jp/en/corporate/>  
 Company Organization: <https://www.jera.co.jp/en/corporate/about/organization>

# Overseas Businesses & LNG Suppliers

(as of March 31, 2024)

## Overseas Businesses

Overseas Power Generation and Renewable Energy Business

■ Thermal power projects ■ Renewable energy projects

UK	<ul style="list-style-type: none"> <li>■ Gunfleet Sands Offshore Wind IPP Project</li> <li>■ Zenobe Battery Storage</li> </ul>
Belgium	<ul style="list-style-type: none"> <li>■ Parkwind</li> </ul>
Qatar	<ul style="list-style-type: none"> <li>■ Ras Laffan B Gas Thermal IWPP Project</li> <li>■ Ras Laffan C Gas Thermal IWPP Project</li> <li>■ Mesaieed Gas Thermal IPP Project</li> <li>■ Umm Al Houl Gas Thermal IWPP Project</li> </ul>
UAE	<ul style="list-style-type: none"> <li>■ Umm Al Nar Gas Thermal IWPP Project</li> </ul>
Oman	<ul style="list-style-type: none"> <li>■ Sur Gas Thermal IPP Project</li> </ul>
India	<ul style="list-style-type: none"> <li>■ ReNew Power Wind and Solar Power IPP Project</li> </ul>
Bangladesh	<ul style="list-style-type: none"> <li>■ Summit Power IPP Project</li> <li>■ Meghnaghat Gas Thermal IPP Project</li> </ul>
Thailand	<ul style="list-style-type: none"> <li>■ EGCO IPP Project</li> <li>■ Solar Power IPP Project</li> <li>■ Ratchaburi Gas Thermal IPP Project</li> <li>■ Wind Power IPP Project</li> </ul>
Taiwan	<ul style="list-style-type: none"> <li>■ Chang Bin / Fong Der / Star Buck Gas Thermal IPP Project</li> <li>■ Formosa 1 Offshore Wind Power IPP Project</li> <li>■ Formosa 2 Offshore Wind Power IPP Project</li> </ul>
Philippines	<ul style="list-style-type: none"> <li>■ TeaM Energy IPP Project</li> <li>■ Aboitiz Power IPP Project</li> </ul>
Indonesia	<ul style="list-style-type: none"> <li>■ Cirebon Coal Thermal IPP Project</li> </ul>
USA	<ul style="list-style-type: none"> <li>■ Tenaska Gas Thermal IPP Project</li> <li>■ Carroll County Gas Thermal IPP Project</li> <li>■ Cricket Valley Gas Thermal IPP Project</li> <li>■ Linden Gas Thermal IPP Project</li> <li>■ Compass Gas Thermal IPP Project</li> <li>■ El Sauz Wind Power Project</li> <li>■ Brady Thermal IPP Project</li> </ul>
Vietnam	<ul style="list-style-type: none"> <li>■ Phu My Gas Thermal IPP Project</li> <li>■ Gia Lai Electricity JSC Project</li> </ul>
Mexico	<ul style="list-style-type: none"> <li>■ Valladolid Gas Thermal IPP Project</li> </ul>

Upstream and Optimization Business

● Fuel upstream business ● Optimization business

The Netherlands	Rietlanden Coal Terminal	●
UK	Fuel Trading Business	●
USA	Freeport LNG Project	●
	Fuel Trading Business	●
Singapore	Fuel Trading Business	●
Australia	Darwin LNG Project	●
	Gorgon LNG Project	●
	Wheatstone LNG Project	●
	Ichthys LNG Project	●
	Barossa Gas Project	●

## Major LNG Suppliers

- Australia
- Malaysia
- Russia
- USA
- Qatar
- Papua New Guinea
- Indonesia

IPP: Independent Power Producer

IWPP: Independent Water and Power Producer

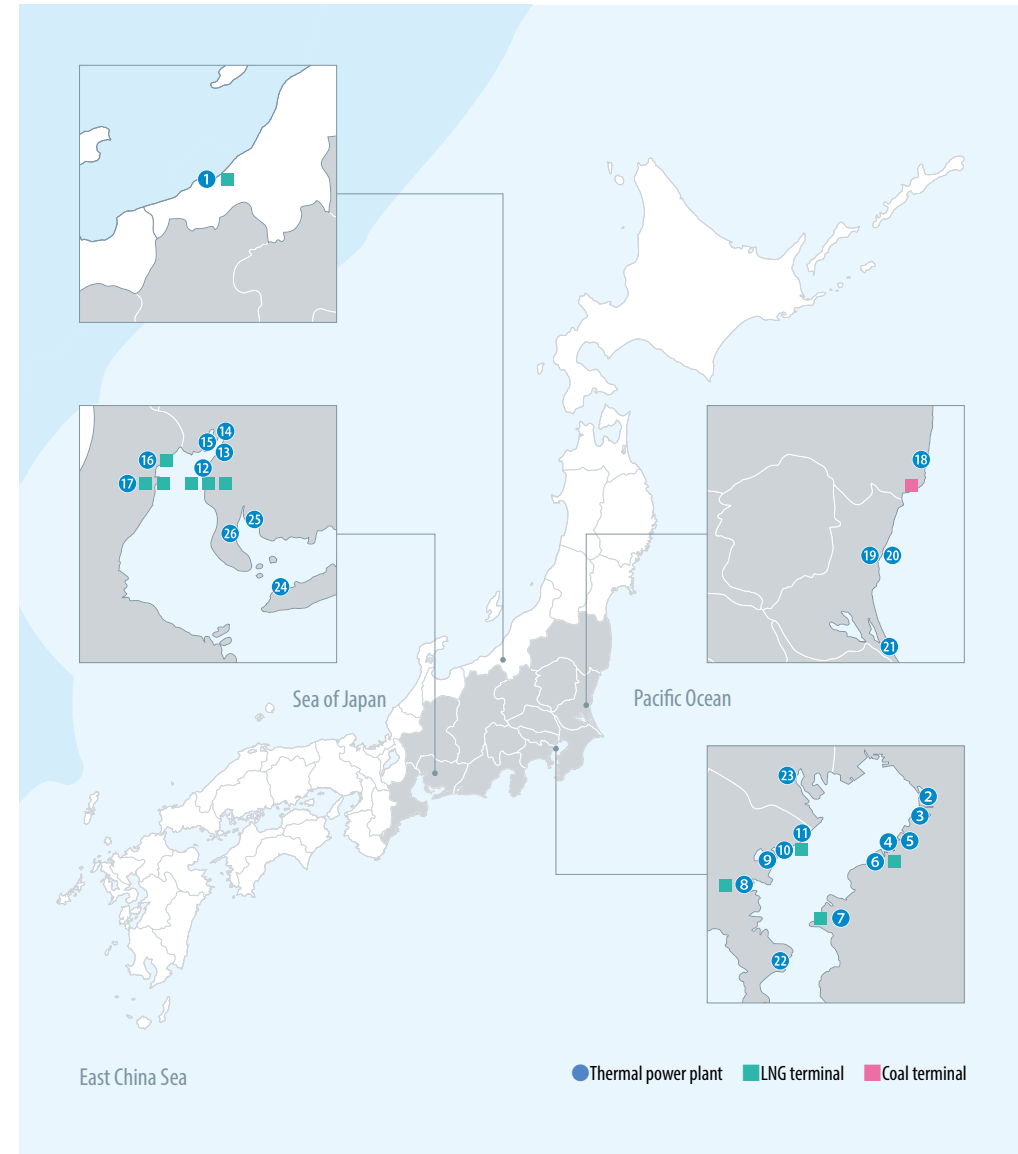
# Thermal Power Plants in Japan

(as of March 31, 2024)

## Thermal Power Plants in Japan\*

	Fuel Type	Total Output
① Joetsu	LNG	2.38 GW
② Chiba	LNG	4.38 GW
③ Goi (GOI UNITED GENERATION LLC.) (started operation in FY2024)	LNG	2.34 GW
④ Anegasaki	LNG	1.2 GW
⑤ Anegasaki (JERA Power ANEGASAKI LLC.)	LNG	1.941 GW
⑥ Sodegaura	LNG	3.6 GW
⑦ Futtsu	LNG	5.16 GW
⑧ Minami-Yokohama	LNG	1.15 GW
⑨ Yokohama	LNG	3.016 GW
⑩ Higashi-Ohgishima	LNG	2 GW
⑪ Kawasaki	LNG	3.42 GW
⑫ Chita	LNG	1.708 GW
⑬ Chita Daini	LNG	1.708 GW
⑭ Shin-Nagoya	LNG	3.058 GW
⑮ Nishi-Nagoya	LNG	2.376 GW
⑯ Kawagoe	LNG	4.802 GW
⑰ Yokkaichi	LNG	0.585 GW
⑱ Hirono	Heavy oil/Crude oil/Coal	1.8 GW
⑲ Hitachinaka	Coal	2 GW
⑳ Hitachinaka Joint Thermal Power Station (Hitachinaka Generation Co., Inc.)	Coal	0.65 GW
㉑ Kashima	City gas	1.26 GW
㉒ Yokosuka (JERA Power YOKOSUKA LLC.)	Coal	1.3 GW
㉓ Shinagawa	City gas	1.14 GW
㉔ Atsumi	Heavy oil/Crude oil	1.4 GW
㉕ Hekinan	Coal	4.1 GW
㉖ Taketoyo (JERA Power TAKETOYO LLC.)	Coal	1.07 GW

\*Power plant name followed by name of operating company in parentheses



# Affiliated Companies

(as of March 31, 2024)

## Consolidated Subsidiaries, etc.\*<sup>1</sup>

Name	Location	Segment	Main Business Activities	Percentage of Voting Rights (Held)
JERA Power International B.V.* <sup>2</sup>	Amsterdam, Netherlands	Overseas Power Generation and Renewable Energy Business	Investment and financing, securities, etc., for overseas power generation businesses, etc.	100.0%
JERA Asia Pte. Ltd.* <sup>2</sup>	Singapore	Overseas Power Generation and Renewable Energy Business	Project development and investment in all energy-related projects in Asia	100.0%
JERA Australia Pty. Ltd.* <sup>2</sup>	Perth, Australia	Fuel Business	Fuel business management in Australia	100.0%
JERA Global Markets Pte. Ltd.* <sup>2</sup>	Singapore	Fuel Business	Fuel trading and related activities	66.7%
Hitachinaka Generation Co., Inc.	Tokai-mura, Naka-gun, Ibaraki	Domestic Thermal Power Generation and Gas Business	Thermal power generation and related activities	100.0%
JERA Power Trading Co., Inc.	Chuo City, Tokyo	Domestic Thermal Power Generation and Gas Business	Electricity trading and related activities	100.0%
Parkwind N.V.* <sup>2</sup>	Leuven, Belgium	Overseas Power Generation and Renewable Energy Business	Offshore wind power generation business	100.0%
LNG Marine Transport Co., Ltd.	Chiyoda City, Tokyo	Fuel Business	Liquefied natural gas marine transport and related agency activities	70.0%
JERA Global Insurance Inc.	Hawaii, USA	Domestic Thermal Power Generation and Gas Business	Insurance	100.0%
JERA Power YOKOSUKA LLC.	Yokosuka City, Kanagawa	Domestic Thermal Power Generation and Gas Business	Thermal power generation and related activities	100.0%
JERA Power ANEGASAKI LLC.	Ichihara City, Chiba	Domestic Thermal Power Generation and Gas Business	Thermal power generation and related activities	100.0%
Chita LNG Co., LTD	Chita City, Aichi	Domestic Thermal Power Generation and Gas Business	Services related to the receiving, storage, regasification, and delivery of liquefied natural gas	95.0%
JERA Power (Thailand) Co., Ltd.	Bangkok, Thailand	Overseas Power Generation and Renewable Energy Business	Power plant operation and engineering services and financing for these services in Thailand	100.0%
Goi United Generation LLC.	Ichihara City, Chiba	Domestic Thermal Power Generation and Gas Business	Thermal power generation and related activities	66.0%
Nexeraise Co., Ltd.	Minato City, Tokyo	Domestic Thermal Power Generation and Gas Business	Petroleum product sales, operation and management of thermal power facilities, power plant disaster prevention and response operations, security services, etc.	100.0%
JERA Power TAKETOYO LLC.	Taketoyo-cho, Chita-gun, Aichi	Domestic Thermal Power Generation and Gas Business	Thermal power generation and related activities	100.0%
JERA Americas Inc.* <sup>2</sup>	Delaware, USA	Overseas Power Generation and Renewable Energy Business	Management of power generation and fuel business activities in the Americas, including investing, financing, and securities	100.0%
JERA Americas Holdings Inc.	Delaware, USA	Fuel Business	Management of power generation and fuel business activities in the Americas	100.0%

\*<sup>1</sup> The term "consolidated subsidiaries, etc." includes joint operations.

88 other companies

\*<sup>2</sup> These six companies fall under the category of specified subsidiaries. The specified subsidiaries within the 88 other companies are JERA Nex Limited, JERA Ichthys Pty Ltd., JERA Trading International Pte. Ltd., Reliance Bangladesh LNG & Power Ltd., Tokyo Electric Power Company International B.V., JERA Gorgon Pty Ltd., JERA Power Management Asia B.V., Chubu Electric Power Integra Pty Ltd., JERA Barossa Pty Ltd, and JERA Asia Vietnam Holdings Pte. Ltd.

## Equity Method Affiliates, etc.\*<sup>3</sup>

Name	Location	Segment	Main Business Activities	Percentage of Voting Rights (Held)
Soma Kyodo Power Company, Ltd.	Soma City, Fukushima	Domestic Thermal Power Generation and Gas Business	Thermal power plant operations and maintenance and electric power sales	50.0%
Joban Joint Power Co., Ltd.	Chiyoda City, Tokyo	Domestic Thermal Power Generation and Gas Business	Thermal power plant operations and maintenance and electric power sales	49.1%
Aboitiz Power Corporation	Manila, Philippines	Overseas Power Generation and Renewable Energy Business	Power generation and distribution, retail electric power sales in the Philippines	27.6%
Kashima Kyodo Electric Power Co., Inc.	Kashima City, Ibaraki	Domestic Thermal Power Generation and Gas Business	Thermal power plant operations and maintenance and electric power sales	50.0%
Tokyo Timor Sea Resources Inc.	Delaware, USA	Fuel Business	Investment in gas field development projects in the Joint Petroleum Development Area between Australia and Timor Leste	66.7%
Kimitsu Cooperative Thermal Power Company, Inc.	Kimitsu City, Chiba	Domestic Thermal Power Generation and Gas Business	Thermal power plant operations and maintenance and electric power sales	50.0%
TeaM Energy Corporation	Manila, Philippines	Overseas Power Generation and Renewable Energy Business	Power generation in the Philippines	50.0%
Freeport LNG Development, L.P.	Houston, USA	Fuel Business	LNG facility operations, maintenance, and development in the Americas	25.7%

\*<sup>3</sup> The term "equity method affiliates, etc." includes joint ventures.

41 other companies