

# 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 to all), and stability (ensuring a secure supply).
- ▶ Each country and region has its unique environment, so the weight placed on these three objectives and how they will be achieved will also 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 and offer them 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 renewables and low greenhouse gas thermal power, sparking sustainable development in Asia and around the world

#### Medium and Long-Term Strategy

##### Balancing Stable Supply and Decarbonization

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

##### Clean Energy Supply Platform

Low-carbon Thermal Power x Expansion of Renewable Energy

Transportation/Receiving/Storage

Creation of Fuel Procurement Portfolio

Fuel Upstream Development  
From Coal and LNG to Ammonia and Hydrogen

Digital Transformation (DX)

Technological Development

#### Infrastructure

##### E (Environment)

- Climate change mitigation
- Water quality usage and conservation
- Initiatives related to resource recycling
- Maintenance and management of waste treatment facilities
- Biodiversity conservation

##### S (Society)

- Talent acquisition and retention strategy
- Commitment to human rights
- Coexistence with local communities
- Safety initiatives
- Stakeholder engagement

##### G (Governance)

- Proper corporate governance
- Risk management
- Improving information security
- Compliance promotion

# At a Glance

JERA is an energy company that spans the entire value chain, from the fuel upstream business and procurement through 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.



|                                    |                                 |
|------------------------------------|---------------------------------|
| Number of employees (consolidated) | <b>5,295</b>                    |
| Revenue*1                          | Approx. <b>4.7</b> trillion yen |
| Total assets                       | Approx. <b>9.1</b> trillion yen |

|                                   |   |
|-----------------------------------|---|
| LNG Transaction Volume (annual)*1 | One of the World's Largest<br>Approx. <b>35</b> million t |
| LNG Suppliers                     | <b>15</b> countries                                       |
| Number of Upstream Investments    | <b>6</b>  |

|  |  |
|--|--|
| Thermal Power Plants in Japan          | <b>26</b><br>#1 in Japan   |
| Power Generation Capacity in Japan*2   | Approx. <b>61</b> GW   |
| Power Generation Output in Japan*1, *2 | Approx. 30% of country total<br>Approx. <b>235.0</b> billion kWh |

|   |                        |
|---|------------------------|
| Number of Overseas Power Projects                     | Approx. <b>30</b>      |
| Overseas Business Locations                           | <b>10</b> + Countries  |
| Overseas Power Generation Capacity (Equity output) *2 | Approx. <b>12.4</b> GW |

## 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, etc.

Major Projects ■ Major Group Companies ◆

**Overseas Power Generation and Renewable Energy Business**

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

Major Projects ■ Major Group Companies ◆

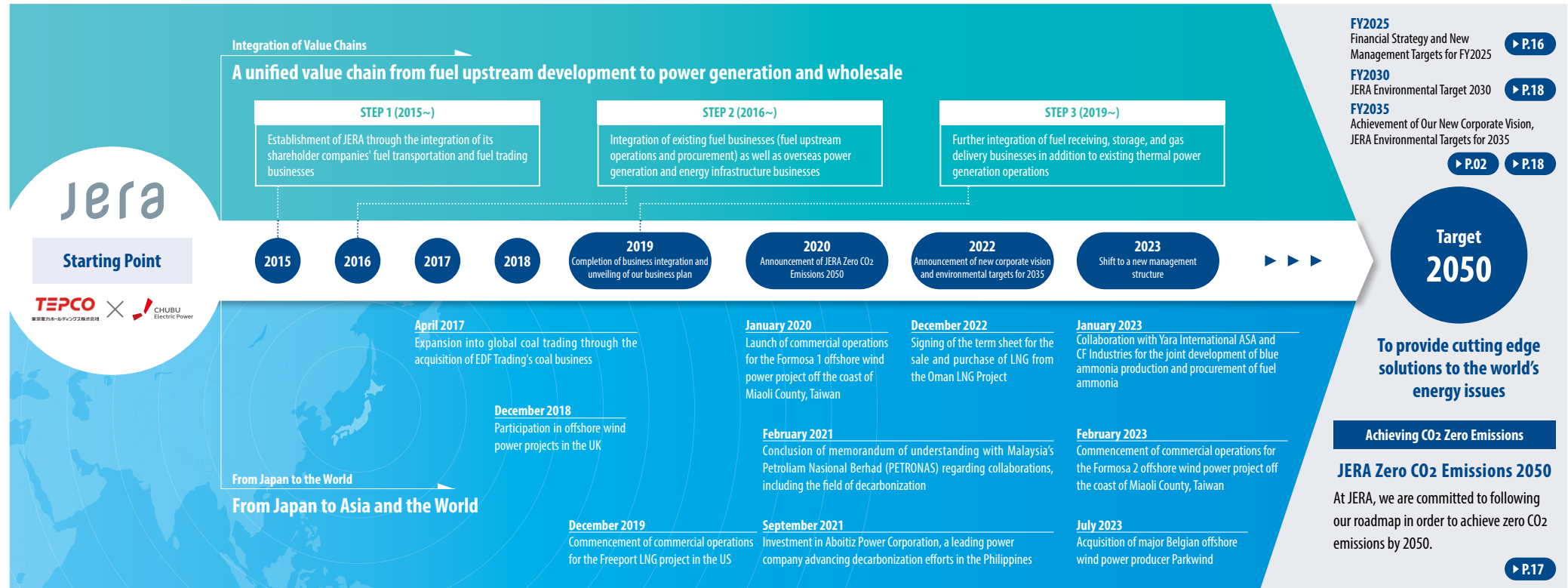
As of March 31, 2023

\*1 FY2022

\*2 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



Our Response: Adapting to Changes in Society

### A Turning Point in Energy Policy

Following the Great East Japan Earthquake in 2011, the role of thermal power generation became increasingly vital to compensate for Japan's electricity shortage. A global energy company capable of contending in the international market was needed to ensure a stable fuel supply for power generation and consistently provide competitive energy. In line with this vision, JERA was created through the consolidation of the fuel and thermal power departments of Tokyo Electric Power Company and Chubu Electric Power Company.

### Accelerating Decarbonization

The rapid progression of global warming has made addressing climate change an urgent issue, and the 2015 Paris Agreement has led to stricter regulations on fossil fuels globally. After the completion of our business integration in 2019, JERA emerged as an energy company boasting Japan's largest thermal power generation capacity and one of the world's largest fuel transaction volumes. Focused on realizing a decarbonized society and establishing a robust management foundation, in April 2019, we formulated our mission, vision, and business plan leading up to FY2025. Further, in October 2020, as part of our commitment to lead the move towards a decarbonized society, we announced JERA Zero CO<sub>2</sub> Emissions 2050.

### A Drastically Changing External Environment

While renewable energy is becoming more widespread, its susceptibility to weather patterns highlights an increasing need to compensate for its instability as a power source. Against this backdrop, 2022 saw the eruption of conflicts over energy resources due to Russia's invasion of Ukraine, further complicating the environment surrounding our company, and momentum towards a decarbonized society grows stronger each day. Recognizing our mission to balance decarbonization with a stable supply of energy, in May 2022, we set forth a new corporate vision and environmental targets for 2035. At the same time, we announced financial strategy and new management targets for FY2025.

### Preparing for 2050

Our global operations are bringing the world's leading energy solutions to Japan 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, in turn helping to solve energy issues around the world.

## JERA's Co-CEO Structure

Amid dramatic shifts in the energy landscape, our company must address challenges stemming from both the global context of competition for resources and the domestic scenario of ensuring stable power supply amidst deregulation.

To tackle short-term and long-term management challenges both globally and domestically and to fulfill our original objective of growing into a global energy company, we have instituted a co-CEO structure, leveraging the individual strengths of Kani and Okuda and establishing a symbiotic relationship between them to form a robust executive framework.

Kani has extensive international experience in resource and energy business development. He excels at cultivating relationships with global partners and is capable of constructing a global management structure.

Okuda, with experience in corporate planning, is adept at leading the debate about reforming the domestic electric power system, ensuring a stable energy supply, and decarbonizing the energy industry.

The two have worked closely together for a decade, starting with the merger negotiations, capitalizing on each other's strengths as pivotal figures at the core of JERA's operations. Today, they take the helm to move the company forward together.



Co-CEO Kani, Global CEO and Chair (left); Okuda, President, Director, CEO and COO (right)

## Message from the Global CEO and Chair



**JERA's Destination: The Sentiment Embedded in Our Mission and Vision**  
Transforming a hierarchical, male-dominated workplace into a flat corporate culture that embraces diversity

**Yukio Kani**  
Global CEO and Chair

Q

**As newly appointed Global CEO and Chair, what direction would you like to take JERA in relation to the company's mission, vision, and aspirations since its inception?**

**Kani:** We established JERA with the goal of becoming a global energy company with roots in Japan, and it's been four years since completing the integration of our fuel and thermal power value chains in 2019. My colleagues and I have been fully committed to this journey so far, and the future we envision for JERA is clearly enshrined in our mission and vision.

Firstly, our mission articulates the question, "Why do we exist?" It's a message succinctly conveying our raison d'être and is the touchpoint we always return to. After extensive discussions within the management team about JERA's strategy for global competitiveness in the energy industry, we established the mission to provide cutting edge solutions to the world's energy issues.

Q

**Could you elaborate on what is meant by "To provide cutting edge solutions to the world's energy issues"? What are the world's energy issues?**

**Kani:** The energy issues affecting Japan are not necessarily the same as those affecting other parts of the world. As we delve into the individual issues facing Asia, Europe, the Middle East, and Africa, I perceive the crux of the energy dilemma to revolve around simultaneously achieving three things: sustainability (realizing a decarbonized society), affordability (providing electricity to all), and stability (ensuring a secure supply). For instance, Russia's invasion of Ukraine poignantly brought home to Europe, which hitherto prioritized sustainability, the importance of affordability and stability in energy supply while highlighting the challenge of achieving all three simultaneously.

Q

**Can you tell us how JERA aims to provide cutting edge solutions that simultaneously achieve sustainability, affordability, and stability?**

**Kani:** Certainly. In addressing these issues, we aim to turn JERA into a global solution provider. It is imperative that those solutions be cutting edge. It's not about merely selling wholesale electricity but building teams and coming up with agile ideas and proposals capable of solving societal challenges and customer concerns that transcend national and generational boundaries. This is by no means an easy journey, but I believe it's an exciting one.

## Message from the Global CEO and Chair

### Q What can you tell us about JERA's vision to scale up its clean energy platform of renewables and low greenhouse gas thermal power, sparking sustainable development in Asia and around the world?

**Kani:** Our vision serves as a more specific illustration of our mission. We aim to provide a stable supply of clean energy by combining three of JERA's strengths: our value chain, which encompasses investment, procurement, transportation, and sales of LNG; renewable energy; and zero-emission thermal power through hydrogen and ammonia. While some companies specialize in either LNG or renewable energy, only JERA, by bringing these diverse options together, can offer cutting edge solutions to the challenges facing our customers. I believe this ability to provide a variety of solutions is a unique value that we possess at JERA.

### Q Could you share a specific example of a clean energy platform that combines those options?

**Kani:** While there are various initiatives, a domestic example would be the 24/7 carbon-free energy project in collaboration with Toho Studios. The goal is to combine renewable energy sources like solar power and zero-emission thermal power, integrating the latest digital technologies to visualize electricity demand and CO<sub>2</sub> reductions in real-time.



### Q JERA's vision mentions sparking sustainable development in Asia and around the world. Could you elaborate on why there's a particular focus on Asia?

**Kani:** The situation in many Asian countries, which are resource-poor, surrounded by the sea, or share similar meteorological and marine conditions with Japan, is quite different from continent-centric regions like Europe and the Americas. As economic growth in these places is significant and the demand for electricity is only expected to increase, it's unrealistic to assert, with the same logic as in the West, that only clean energy is acceptable. We aim to contribute to the development of Asia by offering the cutting edge energy supply model we are building in Japan, which combines zero-emission thermal power and renewable energy, and tailoring it to suit the circumstances of each country in the region.

One key example in the Asian region is our 2021 investment in Aboitiz Power, a major power company in the Philippines. To accelerate decarbonization in the Philippines, we are aiming to introduce a balanced mix of LNG and renewable energy while initiating discussions on the feasibility of utilizing ammonia at their coal-fired power plants and contemplating the construction of a domestic hydrogen/ammonia supply chain. Moving forward, we will continue to fulfill our role as a leader in addressing climate change alongside our partners in each country.

### Q Next, could you tell us about the core values underpinning JERA's mission and vision?

**Kani:** Our core values dictate our non-negotiables. They tell us how we should approach our daily work in order to accomplish our mission and vision. They encompass being fair and open, valuing diversity, and pursuing excellence. Given the size and social obligations of JERA as an organization, we believe that making a positive impact in the world is critical.

## Message from the Global CEO and Chair



Could you elaborate on JERA's notion of diversity?

**Kani:** We want to deliver cutting edge solutions that don't yet exist, and I don't think that's achievable with a homogeneous group of people. I want us to transition from a hierarchical patriarchy to an inclusive, egalitarian culture that welcomes diversity. Regardless of race or nationality, I envision a team where everyone, whether outspoken or reserved, can openly share their opinions, tune into the needs of our clients, and collectively craft solutions. That's my approach to team building and the reason why diversity is so important.



You mentioned the core values of fairness, diversity, excellence, and, lastly, making a positive impact. Could you elaborate on why you include making a positive impact as a core value?

**Kani:** Given that roughly 70% of the world's CO<sub>2</sub> emissions are energy related, JERA has both a significant impact on climate change as a whole and simultaneously is part of the climate change solution. That's why we are conscious of our potential to make a substantial impact on society, and I believe we must deliver results for the sake of humanity's future.



But there must be a limit to the impact a single company can have on the world.

**Kani:** You're absolutely right. We can't tackle climate change issues single-handedly—we have to work together with global partners. To be recognized as a peer among leading global companies requires two things. The first is whether we can share our mission and vision, and the other is whether a potential partner has a culture that makes us want to work together. Becoming business partners can mean working together in the same office for decades. If we can't empathize with each other's mission and vision and can't respect each other's culture, it will be quite hard to work together. Conversely, when these all align, we can build solid teams with our partners and move closer to fulfilling our mission and vision.



Lastly, you often emphasize the importance of remaining committed to safety and compliance. This is a critical topic, so could you please share the thought behind your commitment to these principles?

**Kani:** Safety and compliance are not a matter of priority—they are prerequisites for doing business. I tell our employees and executives that without adhering to these, we have no right to be in business in the first place. Valuing safety means protecting our colleagues and their families. You wouldn't feel safe working for a company that didn't value its employees and their families, would you?

Compliance isn't complicated—it's about basic principles like being honest and following the rules. Non-compliance leads to betraying the company and losing society's trust. I tell all our employees that they should speak up if something feels amiss, no matter how minor.

I am committed to rigorously enforcing safety and compliance to protect all our stakeholders, employees and the company itself.



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



**Driven by a strong sense of social responsibility and the power of imaginative innovation, at JERA, we are committed to delivering new value through a transitional approach to decarbonization strategies.**

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



### Taking the Helm as President, Director, CEO and COO: My Mission & Aspirations for the Future

Since assuming the position of President, Director, CEO and COO of JERA in April 2023, I have made one thing very clear: at JERA, we believe Japan's challenge today is to create a new platform for delivering stable, economical, clean energy under any circumstances. This is JERA's vision in a nutshell. Realizing this vision requires resonating with both a strong sense of social responsibility and the power of imaginative innovation.

In order to deliver clean energy stably and economically, no matter the circumstances, we must uphold the practices that conventional power companies have refined over their long histories with a strong sense of social responsibility. This includes securing a stable supply and pursuing economic efficiency. However, considering the current landscape of the energy industry, traditional approaches and incremental improvements alone will not suffice. I envision a company capable of reimagining how electricity is produced and utilized and delivering new value through these innovations. But this ambition hinges on the free-spirited, innovative prowess of each of our employees. It is absolutely vital to have both social responsibility and imaginative innovation and to strike an elaborate balance between them.

I will personally take the helm in redefining conventional values and preconceptions, directing our company towards a creative vision that delivers unparalleled value to the world.



### A Central Theme: JERA's Responsibility Toward the Realization of a Sustainable Society

To ensure that all life on Earth continues to thrive in peace and abundance and to pass our beautiful planet on to the next generation, it's imperative to pursue integrity, safety, and sustainability across the realms of the economy, society, and environment. As the largest power generator and LNG handler in Japan, and one of the largest in the world, what we do as a business has a significant impact on people's lives and the environment. As such, we have an obligation not only for our own sustainability but also for the sustainability of society as a whole. As an energy provider, we are trying to create a sustainable society around three pillars: stable supply, decarbonization, and digital transformation (DX).

Russia's invasion of Ukraine has drastically altered the flow of resources. The source of Europe's resource supply has shifted from Russia to Asia and the United States. As a result, resource-poor countries have been put in a precarious situation, many of them



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

grappling with issues of fuel scarcity. Despite the government's national focus on decarbonization, Japan's unique geographical and climatic conditions mean it lacks much renewable energy potential. This is a situation that cannot easily be overcome.

Even so, we have a system to ensure fuel supply, and we are capable of agile responses in peacetime and crisis. We're also steadily transitioning to the most efficient thermal power generation facilities available today to ensure a stable electricity supply while reducing our environmental impact. Reliable access to electricity is a fundamental requirement for a sustainable society. Even momentary disruption can have a substantially negative impact on society. As such, ensuring a stable power supply is our social obligation.

Furthermore, in alignment with the global objective of decarbonization, we've established JERA Zero CO<sub>2</sub> Emissions 2050, which aims to achieve net-zero CO<sub>2</sub> emissions from our operations in Japan and abroad by 2050. This policy will materialize through renewable energy and zero-emission thermal power generation, reflecting the same earnest commitment to decarbonization to ensure a stable power supply. But I will discuss this in more detail in the next section.

We are also working on using digital technology to build a new supply and demand infrastructure that balances economic viability while fulfilling our mission of ensuring a stable supply and decarbonization. Harnessing digital technology allows us to focus on creating systems that deliver value, such as reducing our environmental impact and responding flexibly to short- and long-term supply and demand fluctuations.

We remain committed to contributing to social sustainability in our corporate activities and ask for your continued confidence and support.



### The Path Forward for a Zero-Emission Society: Transition Approaches & Healthy Global Growth in Harmony

Our mission is to provide cutting edge solutions to the world's energy issues, but the world's energy issues vary greatly by time and place. From firewood and charcoal to oil and coal, nuclear power, LNG, and renewables, humanity has cycled through dependence on various energy sources, each presenting its unique set of challenges as civilization has advanced. Today, the most significant trend in energy is unquestionably decarbonization. Seeing decarbonization as non-negotiable for entry into the global energy business, we formulated our JERA Zero CO<sub>2</sub> Emissions 2050 strategy in 2020. Energy is both the lifeblood of industry and daily life and a cornerstone of world peace. We are committed to balancing clean energy with economic stability, all while providing a reliable foundation for energy security.

European nations initially set extremely ambitious decarbonization targets and swiftly pivoted towards renewables, backed by multilaterally interconnected power grids.

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

However, I believe that the invasion of Ukraine and the resultant shift in resource and fuel dynamics have shown that relying solely on renewables—and thereby instantly eliminating all fossil fuels and realizing a sustainable society—isn't as straightforward as was once thought. Geographical conditions largely influence the potential of renewable energy. While tackling climate change is a global objective, individual nations and regions face diverse challenges of varying complexity.



Safety is a top priority at Hekinan Thermal Power Station (Hekinan City, Aichi Prefecture), where ammonia demonstration tests are scheduled to begin in FY2023. Safety belts (fall arrest devices) and other safety equipment are being installed across the facility.

In this context, I believe JERA's mission has become even more significant. Energy issues are intricate webs of geographical, economic, and market dynamics; no single nation or challenge can be addressed in isolation. To address this challenge, we adopt and champion a transition approach. Instant divestment from fossil fuels or thermal power plants could jeopardize energy security. Instead, by maximizing the use of existing facilities and reliable technologies and transitioning thermal power plants to decarbonized fuels, we aim to provide stable and cost-effective energy while achieving zero emissions.

Our approach to zero-emission thermal power relies on hydrogen and ammonia as decarbonized fuels. While initially, these fuels may be more expensive than gas or coal, we anticipate that policy support for decarbonization will foster their adoption. Just as the proliferation of LNG led to cost reductions and market growth, hydrogen and ammonia are expected to become widely adopted and more affordable over time. Another strength of zero-emission thermal power is its ability to compensate for the intermittency of renewables. While we are pushing for renewable energy developments worldwide, renewables can also serve as the energy sources needed for hydrogen and ammonia production. Surplus Natural energy can also be converted and stored in the form of hydrogen and ammonia.

Our vision outlines a future where we can scale up its clean energy platform of renewables and low greenhouse gas thermal power, sparking sustainable development in Asia and around the world. Neither renewable energy nor zero-emission thermal power alone is the answer; they are two sides of the same coin. What is needed is a clean energy supply infrastructure where each one complements the other. Rather than a binary choice between renewable energy and thermal power, we are determined to establish a clean energy platform that integrates them, ensuring harmony in healthy global growth and development.



### The Power of Imaginative Innovation for Sustainable Growth: Uniting Our Hearts & Minds as One

Our vision of the future is integral to our commitment to sustainability. We believe that resilience, the ability to grow and generate profit even in the face of adversity, and the innovative spirit to drive it are crucial.

With disciplined growth and maximization of corporate value in mind, we've set financial strategies and management targets for 2025. For FY2025, we project a consolidated net profit of 200 billion yen. We have earmarked a total investment of 1.4 trillion

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

yen in growth sectors, including a stable energy supply and decarbonization, spanning from FY2022 to FY2025. Furthermore, as a financial health management target, we have announced a Net DER of 1.0 or lower for FY2025. While we cannot let our guard down amidst the changing business environment, our progress toward these goals is generally on track. We plan to announce our next growth targets as soon as we're confident in achieving the current ones. Beyond 2025, we are committed to investing in the areas of renewable energy, hydrogen, and ammonia, the pillars of our medium- to long-term strategy. Given the anticipated demand for capital to fuel such vigorous growth, we're committed to consistently enhancing our profitability. This will drive a cycle from investment to growth and on to further investment.

In a rapidly changing market environment, merely investing does not guarantee growth. We believe that the power of imaginative innovation is vital to ensure that our business, including our investments, continuously creates. Simply supplying energy is not our only social responsibility. We must also offer new options to society and drive its sustainability, which in turn leads to our own sustainability.

Diversity in the workforce is at the heart of imaginative innovation, which is why we must continue to be a company that attracts and retains top talent. Of course, there are still challenges in creating the magnetic pull that attracts people and our ability to share our vision. For our employees, it's not about buzzwords like work-style reform, which you hear a lot in Japan. We must pivot toward a paradigm that aligns with genuine employee well-being and happiness. When I say talent, I'm not only referring to our employees. We are dedicated to delivering more compelling messaging to every one of our stakeholders—our customers, our financial backers, and our business partners.



### The Harmony of A Strong Sense of Social Responsibility & Imaginative Innovation: The Energy Crafting JERA's Melody

As I've mentioned, a profoundly strong sense of social responsibility lies at our core. Given this mantle of responsibility, my mission is to harness the power of imaginative innovation to offer new value to society. At the same time, I must remain committed to driving our company's growth, regardless of the prevailing circumstances. I would also like to touch on one of the foundational tenets that we cherish at JERA: robust on-site capabilities that combine world-class safety, disaster prevention, and resilience.

While the importance of everyday safety is unquestionable, our unique position requires us to maintain operations even during typhoons and other emergencies, ensuring safety throughout. Yet unexpected complications often arise during crises. Nurturing

the power of imaginative innovation on a regular basis becomes pivotal in ensuring safety and responding flexibly amidst these challenges. The power of imaginative innovation is also the key to realizing robust on-site capabilities.

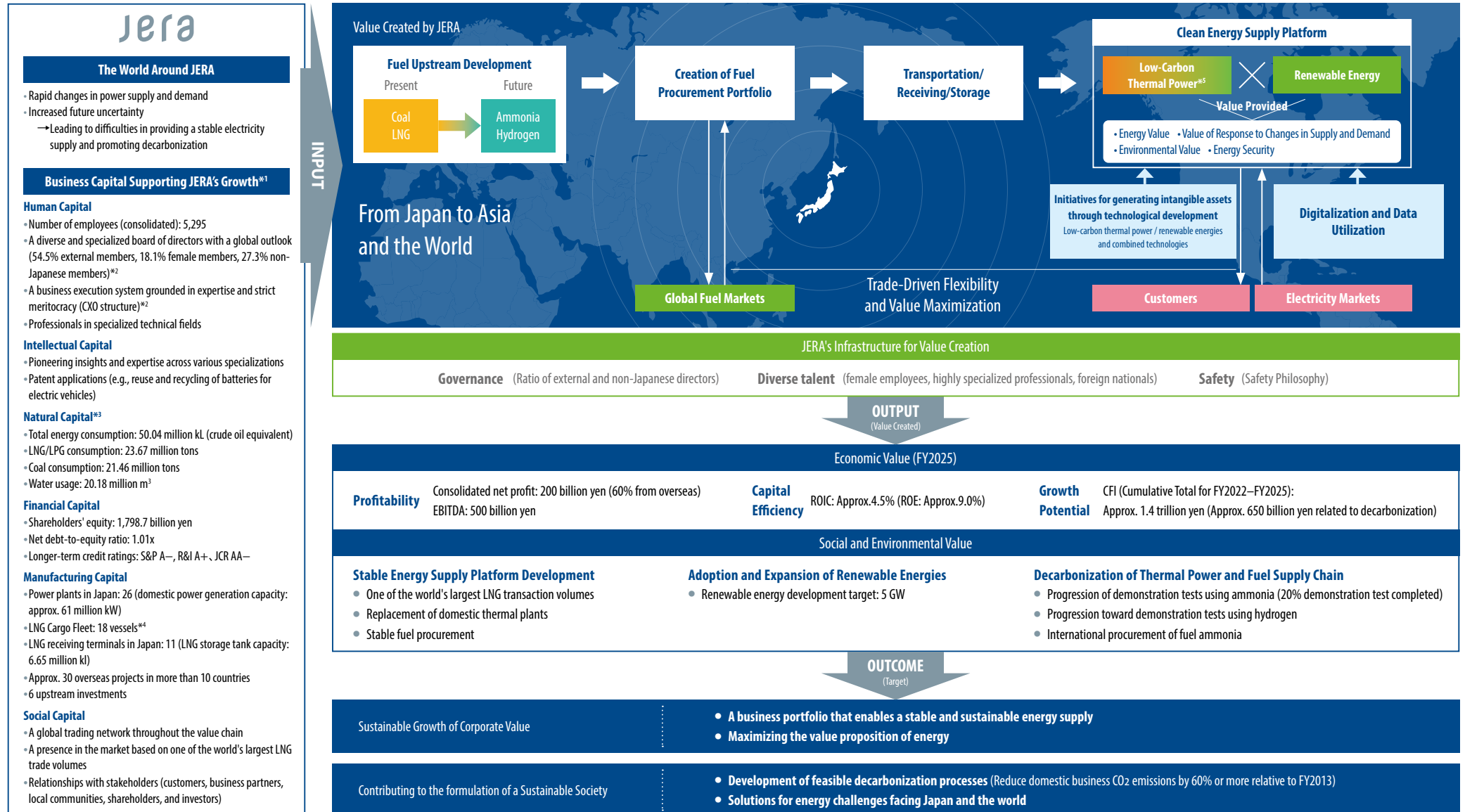
I am convinced that by combining a strong sense of social responsibility and the power of imaginative innovation, JERA can transcend the confines of an energy provider and evolve into something far more exhilarating. Only in a culture that fosters innovation on a daily basis can our employees thrive and find excitement in growing together with their roles, spurring a virtuous cycle of value creation.

As stated in the *Analects of Confucius*, "They who know the truth are not equal to those who love it, and they who love it are not equal to those who delight in it." I firmly believe in finding joy in one's work and have practiced this throughout my life. In this once-in-a-century opportunity to reshape the energy industry, I hope our employees will find pleasure in tackling the issues with fresh ideas and grow as individuals.

As President, Director, CEO and COO, I am committed to delivering even more for our stakeholders. We ask that you continue to support us in our endeavors.



# Value Creation Process



\*1 As of March 31, 2023 \*2 As of July 1, 2023 \*3 Results for FY2022 \*4 As of September 2023 \*5 Thermal power generation facilities assuming the use of zero-emission fuels such as hydrogen and ammonia