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Energy for a New Era

JERA Growth Strategy to Realize the 2035 Vision

Financial Strategy and Financial Target Levels Targeted for by 2035

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Introduction

JERA’s mission is to provide cutting-edge solutions to the world’s energy problems.

Never before has that mission been so critical. Driven by geopolitical events and the climate crisis, the past two years have seen the energy trilemma take hold as governments, businesses and consumers struggle to achieve a balance in delivering and consuming energy that is stable, affordable and sustainable.

JERA aims to solve the world’s energy conundrum of simultaneously delivering stable, affordable, and sustainable energy. But we also know there is no current universal solution and multiple forms of energy will be needed to keep pace with growing global demand.

JERA's strategy to address these challenges is based on a strategic positioning with a focus on three business areas: LNG, renewables, and hydrogen & ammonia. Since these three businesses have complementary synergies, they can be leveraged to provide solutions tailored to the geographic and economic characteristics of any country or region.

To support organizational capacity and achieve high-quality solutions, JERA divides the organization into three areas: business development, optimization, and O&M. Independent groups of experts have been formed globally for each of these three areas to create synergies and encourage collaboration across sites and functions.

The three groups of experts will collaborate with the three businesses areas on a global scale to provide cutting-edge solutions tailored to the markets where we currently operate and new markets where we seek to grow. This combination is a key differentiator for JERA that no other energy company in the world has.

Introduction

Today, we are announcing the JERA Growth Strategy. This strategy combines our mission of solving the world‘s energy problems with our core three business areas, while leveraging our unique set up.

We also present the scale of our business according to the realization of our Growth Strategy, the income and expenditure levels we are targeting by 2035, along with a summary of our financial strategy.

With regard to the Growth Strategy presented today, we hereby promise (CEOs’ Commitments) that we will achieve concrete results that we can proudly share with our stakeholders within the next year.

In order to realize our Growth Strategy, JERA commits to boldly tackling today’s energy and climate crisis head on, while working hand in hand with all stakeholders to grow and develop society. We hope that you will continue to look forward to our growth and ask for your continued support and cooperation

Yukio Kani
Global CEO and Chair

Hisahide Okuda
President, Director, CEO and COO

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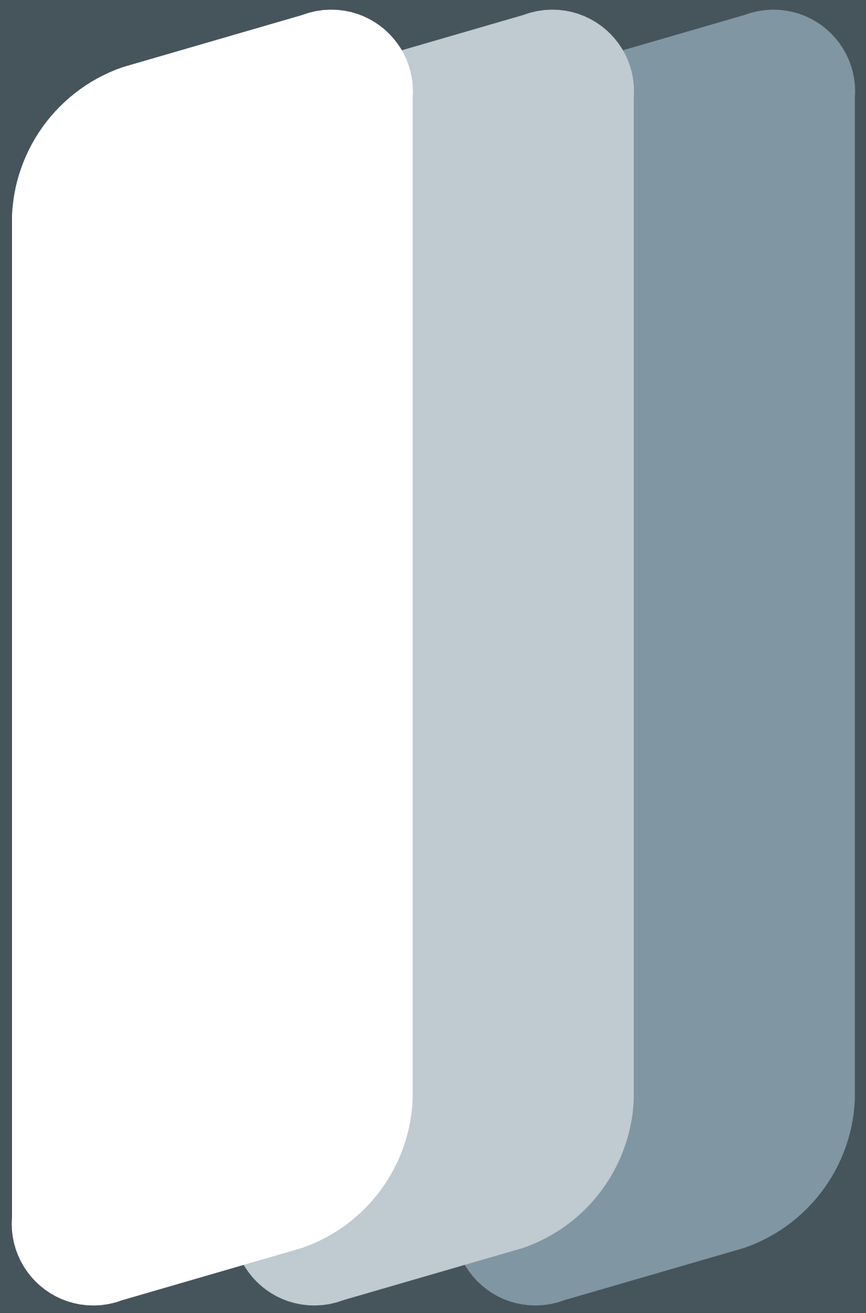

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Clear achievements during 10 years since start pave the way to becoming a global energy leader

- Following 2014 decision to create global energy leader, JERA completed the successful integration of all assets within 5 years.
- Currently, JERA supplies one-third of Japan’s electricity as one of the world’s largest LNG buyers, delivering significant financial upside and exceeding original targets.
- Formulated practical and responsible growth strategy towards 2035 leading decarbonization.

2014
Agreement between Tokyo Electric Power and Chubu Electric Power to create a “Global Energy Company” as a 50/50 JV

2019
Completion of the full integration of all domestic and overseas fuel-fired businesses into JERA

2023
Supplying one-third of power in Japan and leading decarbonization efforts

2035
Where is JERA headed?

¥90 billion	Net Income*1	**¥148.7 billion**
¥4 trillion	Total Asset	**¥8.5 trillion**
3 GW	New Domestic Power Supply*2	**7 GW**
35 million tons	LNG Handling Volume*3	**35 million tons**
1.5 GW	Renewables Development Output*2	**3.5 GW**
N/A	Hydrogen & Ammonia Investment	**¥15 billion**

- 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

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*1 -Excluding the effect of time lags
*2 – Cumulative Development Capacity
*3 – Including trading volume

The world is facing growing challenges and uncertainties strongly related to energy

- Energy plays a significant role in solving global challenges of climate change, increasing poverty and rising geopolitical risks.
- AI is transforming the society while also generating massive electricity demand.
- Energy demand in Asia will grow significantly as Japan's relative economic size to shrink.

Climate Change (Sustainability)

+1.48°C

the rise in global average temperatures from pre-industrial times to 2023(1)

Economy in Asia & Japan

China, India and Indonesia will be in the top five of world GDP by 2050, while Japan will drop out of the top five(3)

AI

Almost **60%**

of jobs in advanced economies may be impacted by AI, and roughly half the exposed jobs may benefit from AI integration and enhancing productivity. For the other half, AI applications may execute key tasks currently performed by humans(2)

Geopolitical Risk (Stability)

Sheltering consumers from volatile fuel prices in 2022 cost

USD **900** billion

in emergency support(5)

Poverty (Affordability)

Less than **1 in 8** people

in low-income countries, which account for 52% of the world's population, consume as much annual energy per capita as those in high-income countries(4)

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(1) Copernicus Climate Change Service, UN Climate Change (2) IMF analysis Jan 2024 (3) Source: Goldman Sachs Global Paper 2022.
(4) U.S. Energy Information Administration (2023); Energy Institute - Statistical Review of World Energy (2023); Population based on various sources (2023) – with major processing by Our World in Data (5) IEA World Energy Outlook 2023

Mission/Vision - Leading the energy transition with a unique business model

- The world’s energy issue is to solve the energy trilemma, i.e. achieving sustainability, affordability and stability simultaneously

- JERA’s business model is addressing the energy trilemma by combining renewables and low greenhouse gas thermal power in a practical and responsible way.

- Expansion of cutting-edge solutions from Japan to Asia and the world.

Mission

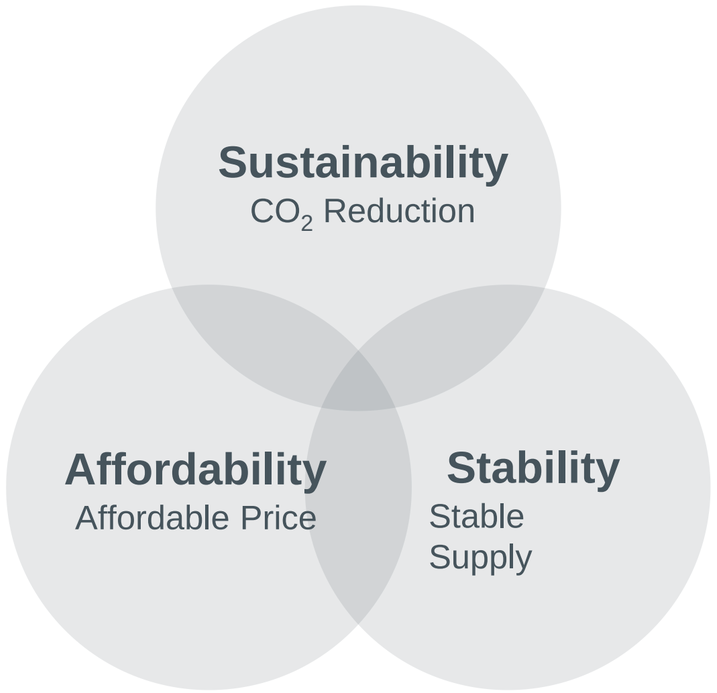
To provide cutting edge solutions to the world’s energy issues

2035 Vision

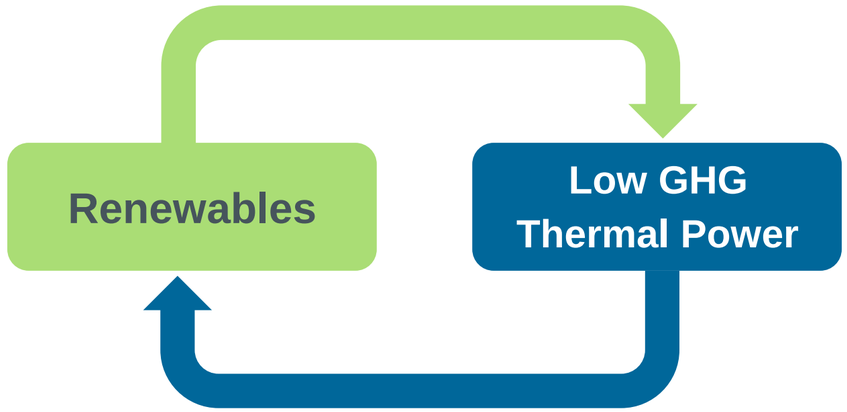
Clean energy platform of renewables and low greenhouse gas thermal power

Goal: Zero CO_2 Emissions 2050

Energy Trilemma



The intermittency of renewables, created due to natural flutuations in wind and sunlight, combined with a lack of electricity storage technology and capacity, means low greenhouse gas thermal power will have a critical role to play in the energy transition



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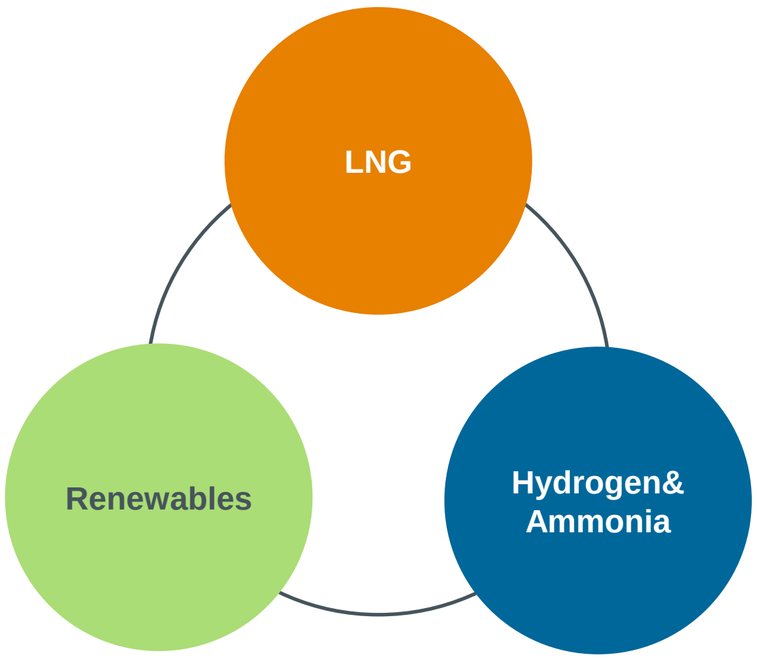
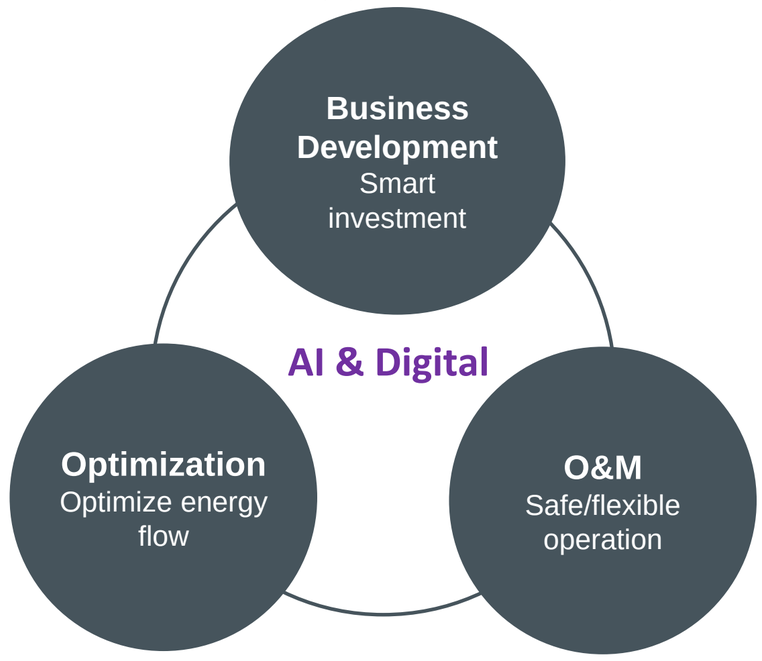
Providing optimal solutions through JERA's unique combination of its Strategic Positioning (SP) and Operational Capabilities (OC)

- Clear and coordinated investment focus on three business areas: LNG, Renewables and Hydrogen & Ammonia (Strategic Positioning).
- Continued strengthening and refinement of business functions: Business Development, Optimization and O&M (Operational Capabilities).
- Effective combination of Strategic Positioning and Operational Capabilities enables JERA to offer solutions that address different energy needs by customer, region and country.

Focus Investment
Strategic Positioning (SP)
Decide where to invest and where not to invest



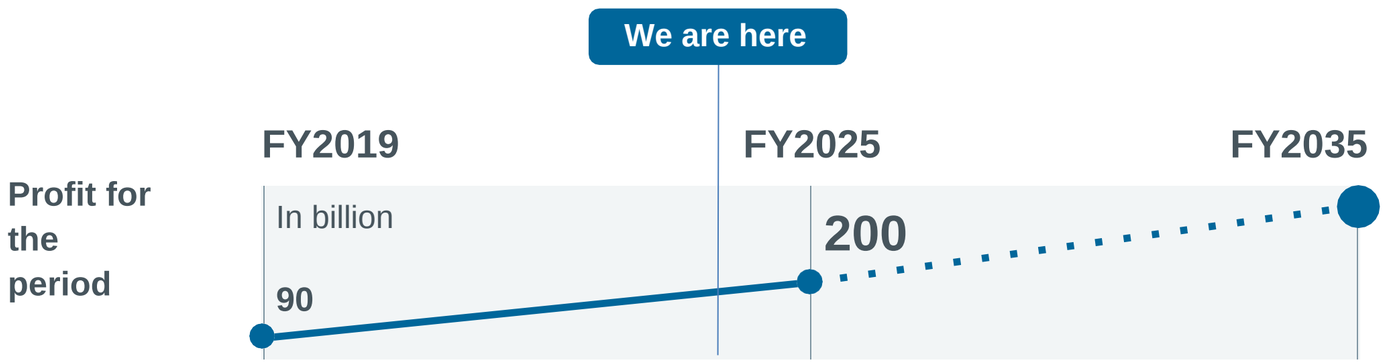
Refine Business Functions
Operational Capabilities (OC)
Enhance the way you work on a daily basis



Provide cutting- edge solutions that meet the geographic and economic characteristics of each customer, region and country

Key targets for 2035: investment of 5 trillion yen in 3 strategic business areas and achieving a profit of 350 billion yen

- Cumulative investment target of 5 trillion yen by 2035 reflects the capital-intensive nature of JERA's three business areas.
- Enhancing the selection of strategic investments to respond to rising interest rates and inflation, with leveraging 3 OCs to boost profitability.
- Flexible and agile investment allocation in response to technology development and changes of the business environment.



Target scale to be achieved by FY 2035

¥350 billion
Consolidated net income

Aiming for steady profit growth despite uncertain business environment

¥5 trillion
Cumulative investment CF (FY 2024 to FY 2035)

Investing in three business areas based on operating capital from existing businesses

More than
35 million tons
Handling volume

One of the world's largest LNG value chain players

Development capacity
20 GW(1)

Global renewables players involved in green fuel production

Amount of hydrogen/ ammonia handled
About 7 million tons(2)
Note:Amount of ammonia equivalent

A pioneer player in the global hydrogen & ammonia value chain

(1) Assuming disciplined investment decisions in high-quality projects while assessing market conditions
(2) This initiative will be detailed in stages based on policy and other assumptions. If assumptions are substantially changed, they will be reviewed.

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LNG – As an integrated value chain player, we continue to provide solutions to our customers in Japan and Asia through stable and flexible LNG supply

- One of the largest global LNG players with an integrated value chain.
- Leveraging its LNG transaction scale, JERA (1) strengthens the LNG value chain, (2) diversifies LNG supply and market positions, and (3) optimizes LNG flow at a global scale
- Continue to provide solutions to Japan and Asia and maintain its exposures in the global LNG market

1 Strengthen the LNG value chain

Gas fields	Liquefaction Plant	LNG Transport	LNG Procurement /Sales	Receiving Terminal / Pipeline	Gas Thermal Power	Customers
6 Projects in Australia	Freeport US	22 LNG vessels under long-term charter	**35 million tons** (vs 400 million tons global trade)	11 Terminals	Capacity Approx. 50 GW	**Domestic:** PPA and Power Trading **Overseas:** Bangladesh, the Philippines, and other regions

2 Diversify LNG supply & market positions

Procurement: S.E. Asia, Oceania, North America, Middle East, etc.
Sales: S.E and S.W..Asia, Europe, etc.

Destination Free LNG	Competitive fleet with trading & optimization flexibility	Diversified LNG Portfolio	Ability to accept wide quality range of LNG and operate the generation units in an optimum manner

3 Optimize LNG flow at a global scale for JERA's competitive edge

- **Providing energy security to Japan even under market turmoil post-Ukraine conflict**
- **Reducing coal/oil-firing mainly in Asia (with LNG & Renewables) for decarbonization**

Renewables – Center of Excellence in UK with Glocal system for scaling up wind and solar

- Towards Asia's top-tier player, having 5GW capacity of FID / acquired business rights and over 10GW in the pipeline, with a team of 300 members
- Clear growth path with offshore/onshore wind and mega solar, plus green fuel development.
- Become a 20 GW global player by 2035 through clearly defined steps that integrate local and global teams and drive collaboration.

From Scratch
To the Top in Asia
2019 – 2023

Step 1
Building Center of Excellence (COE)
2023 – 2024

Step 2
Establishment of “Glocal” System
2024-2025

Step 3
Pursuing Collaboration
From 2025

Wind

Solar

Green Hydrogen & Ammonia

Step 1 | Building (COE)

JERA Nex (UK)
30 ppl

- Drive Parkwind's PMI under diverse management team
- Establish a governance structure suitable for the Glocal structure

Parkwind (Belgium)
Offshore wind force: 140 ppl

- Acquisition completed in July 2023, offshore wind in Belgium and Germany
- Acquisition of rights to Norway's first offshore wind tender in March 2024

Step 2 | Integration of COE and Local teams (“Glocal” System)

Taiwan
Offshore wind force: 20 ppl

Japan
Offshore wind and other force: 100

United States
PV and onshore wind force: 10 ppl

India: ReNew
Vietnam: GEC
UK: Zenobe

- Participated in Taiwan's first large-scale offshore wind project (Formosa 1/2) and led the construction of Formosa 2
- Completed Japan's first large-scale offshore wind project in January 2024
- Selected as an operator of multiple projects in Japan's second offshore wind tender
- Developed large-scale solar, onshore wind and battery storage projects in the US, India and the UK

Step 3
Collaboration

Global Player

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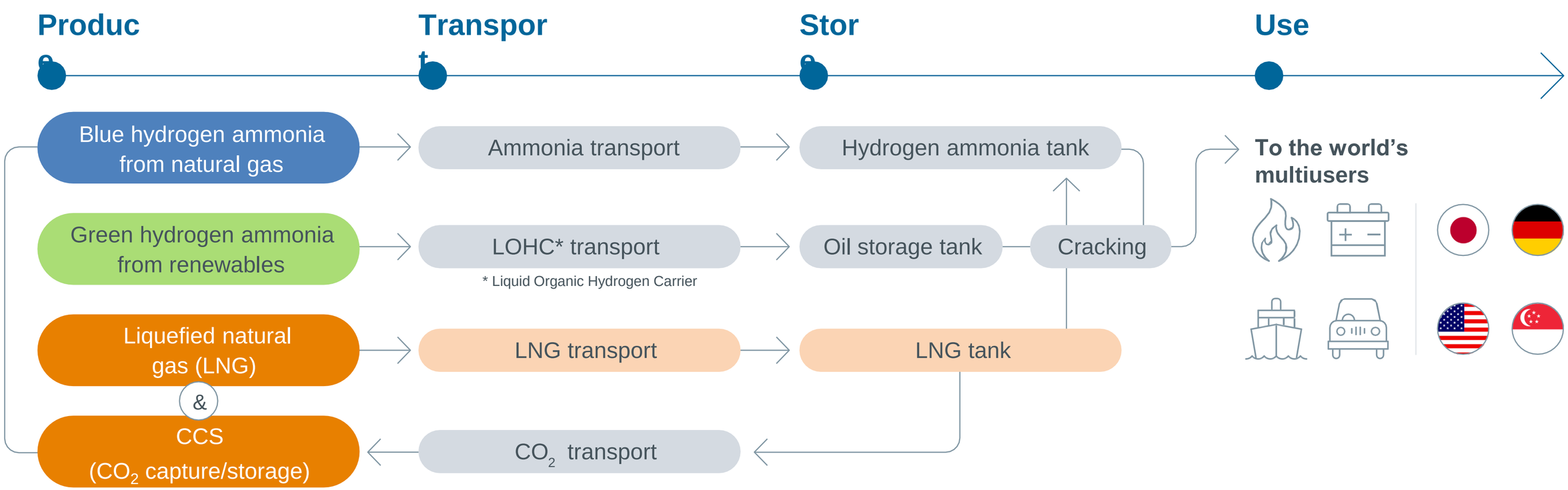
Hydrogen & Ammonia – First mover in creating low carbon value chain with multi-purpose decarbonization initiatives

- Leverage JERA's pioneering position to achieve low-carbon thermal power with hydrogen/ammonia plus carbon capture and storage (CCS) etc.
- Towards hydrogen/ammonia value chain, leading the world's first large-scale ammonia power generation in Japan by 2027/2028. In US, hydrogen introduced into gas thermal power (up to 40%) .
- From power demand to marine fuel and industrial use, providing multi-purpose decarbonization solutions from Japan to Asia, Europe and the US.



* Liquid Organic Hydrogen Carrier

Ammonia production and CCS

Ammonia joint development agreements signed with

- CF Industries (the world's largest ammonia producer)
- ReNew (Indian renewables giant)

Ammonia production in discussion with

- ExxonMobil, ConocoPhillips

CCS joint review agreement signed with

- Petronas, INPEX

Ammonia transport

- Under joint review with Nippon Yusen, Mitsui O.S.K. Lines

LOHC Technology Development

- Investment into Hydrogenous (Germany)

CO_2 transport

- Start of basic study

Japan

- Hekinan: Started large-scale demonstration test of 20% ammonia conversion, 100% goal for 2040s
- Chita: Won decarbonization power source auction with the aim of introducing hydrogen

Fuel supply to bunkering and industries

Overseas

- Introduction of hydrogen (up to 40%) to the US Linden power plant
- HOA of blue ammonia to Germany's Uniper
- Joint examination of ammonia cracking technology with Germany's EnBW & VNG
- Joint examination of ammonia power generation/bunkering project at Singapore's Jurong Port with MHI-AP

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The journey of energy transition: Aiming for the 2035 Vision through long-term perspective and agile portfolio adaptation

- As the times change, effective solutions also evolve. JERA maintains 3 business areas from a long-term perspective, agilely adapting the portfolio in accordance with the business environment
- The agile adaptation is supported by (i) flexible decision-making operations, (ii) common foundation of optimization and O&M, and (iii) synergy between 3 business areas. This enables dynamic investment pacing in decarbonization.
- Strong synergies between blue hydrogen & ammonia and LNG, plus green hydrogen & ammonia with renewables

Changing Business Environment

Past 10 years..

- Significant growth in renewables
- Introduction of LNG in many countries

Short term horizon
2025-2030

Possible scenario:
- Renewable growth negatively affected by high interest rates etc.
- Demand for AI-related electricity grows
- LNG is effective as a stable transition fuel

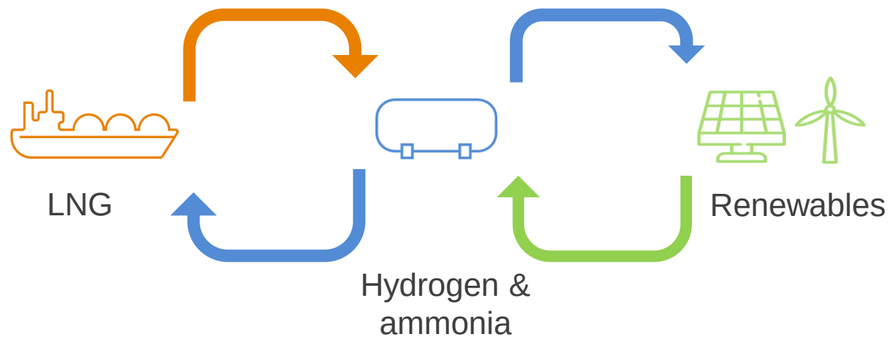
Long term horizon
2030-2040

Possible scenario:
- Renewables will grow again
- LNG coal will eventually be replaced with hydrogen & ammonia and decarbonized
- New decarbonization solution commercialized

JERA's Unique Position

Flexible decision-making operations x Common foundation of optimization and O&M x Synergy between 3 business areas

Synergy between 3 business areas



- **Blue hydrogen & ammonia:** Full utilization of LNG value chain i.e. gas field development (CCS), transportation, thermal power O&M capabilities, and trust relationship with oil majors
- **Green hydrogen & ammonia:** In addition to LNG value chain, large-scale renewable energy development and O&M capabilities, utilization of trust relationship with renewable players

Collaboration is key to achieving Mission & 2035 Vision

Reliable partners determine the success of long-term projects

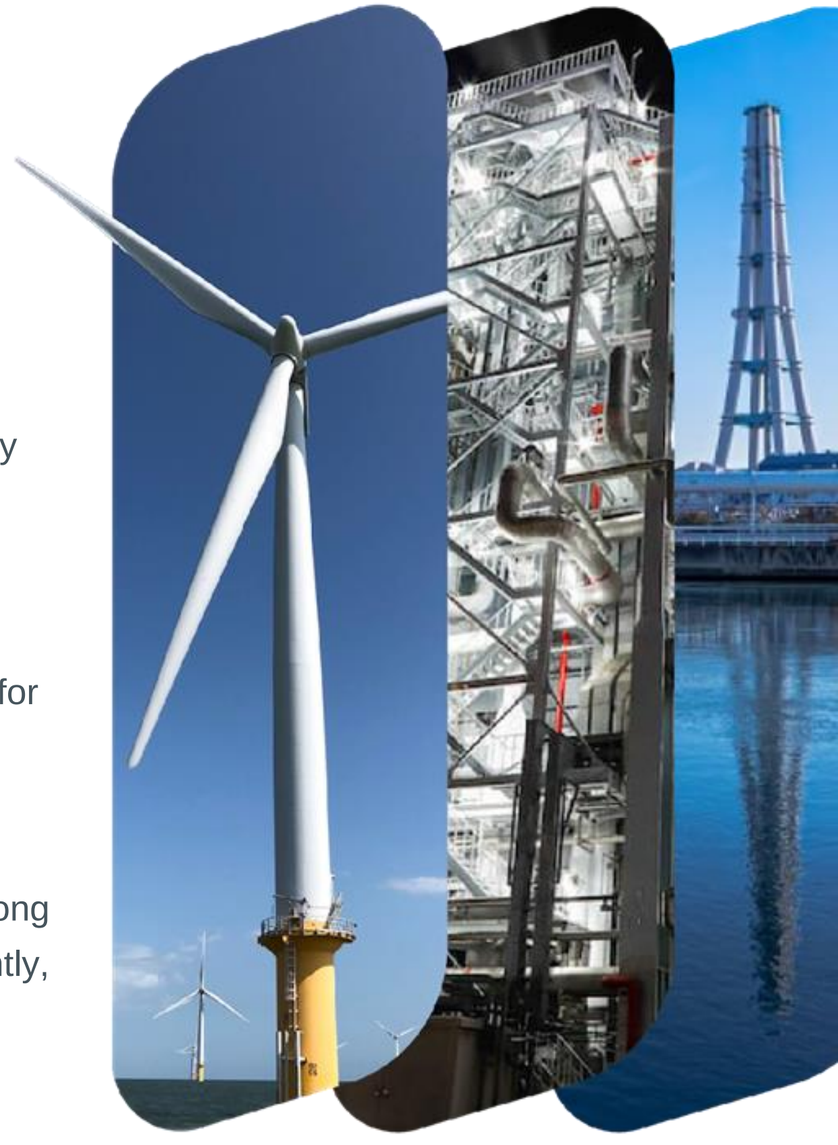
- The three strategic business areas of JERA all involve a large-scale projects with lifespan of 30-40 years or more, and commercializing new solutions requires taking on new risks to be managed.
- It will therefore be necessary to form joint ventures (JVs) with reliable partners for many projects. Becoming a partner means working side by side for 30-40 years, from project planning, construction, through to operation and disposal.
- Therefore, being chosen as a business partner by global top players both domestically and internationally greatly influences the success of the project.

Building relationship with government officials to pave the way for decarbonization

- Furthermore, openly exchanging opinions with government officials of various countries is extremely important to foster a common understanding of the path towards decarbonization.
- We are already in discussions with the governments of Bangladesh, the Philippines, Indonesia, Thailand, and Vietnam, in collaboration with partner companies in these countries, to develop decarbonization roadmaps. Such efforts can reduce long-term business environmental uncertainty for countries considering introducing LNG, or players wanting to take on new solutions.

Sharing destination and culture is essential for collaboration

- To make such collaborations successful, we place importance on two things based on our long experience: One is whether they can empathize with our Mission and Vision, and more importantly, whether we can share our culture and values.
- At JERA, we cherish a flat culture where diverse talents gather and openly express their opinions.
- Chosen by our partners, we aim to achieve the 2035 Vision together with them and other stakeholders



2

Financial Strategy and 2035 Financial Targets

01 | FY2035 financial targets

02 | Capital allocation

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Achieve a financial structure valued by capital markets

- Set financial targets (KPIs) based on global peer standards
- Aim to achieve a consolidated net income of 350 billion yen by FY2035, or sooner.

	Management Indicators	FY 2025 Target Values (Reference)	Target Levels by FY 2035
Profitability	Net Income *	**200 billion** yen	**350 billion** yen
	EBITDA*	**500 billion** yen	**700 billion** yen
Capital Efficiency	ROIC – WACC Spread*	ROIC **4.5%** WACC **3.5%**	**150bps** or more
Growth Potential	Investment CF	FY 2022 – FY 2025 **1.4 trillion yen** (cumulative)	FY 2024 – FY 2035 **5 trillion yen** (cumulative)
Financial Soundness	Net DER	**1.0 times** or less	**0.5 times** or less
	Net Debt/EBITDA*	**4.5 years** or less	**2 years** or less
Reference	ROE*	Approx. **9.0%**	Approx. **9.0%**

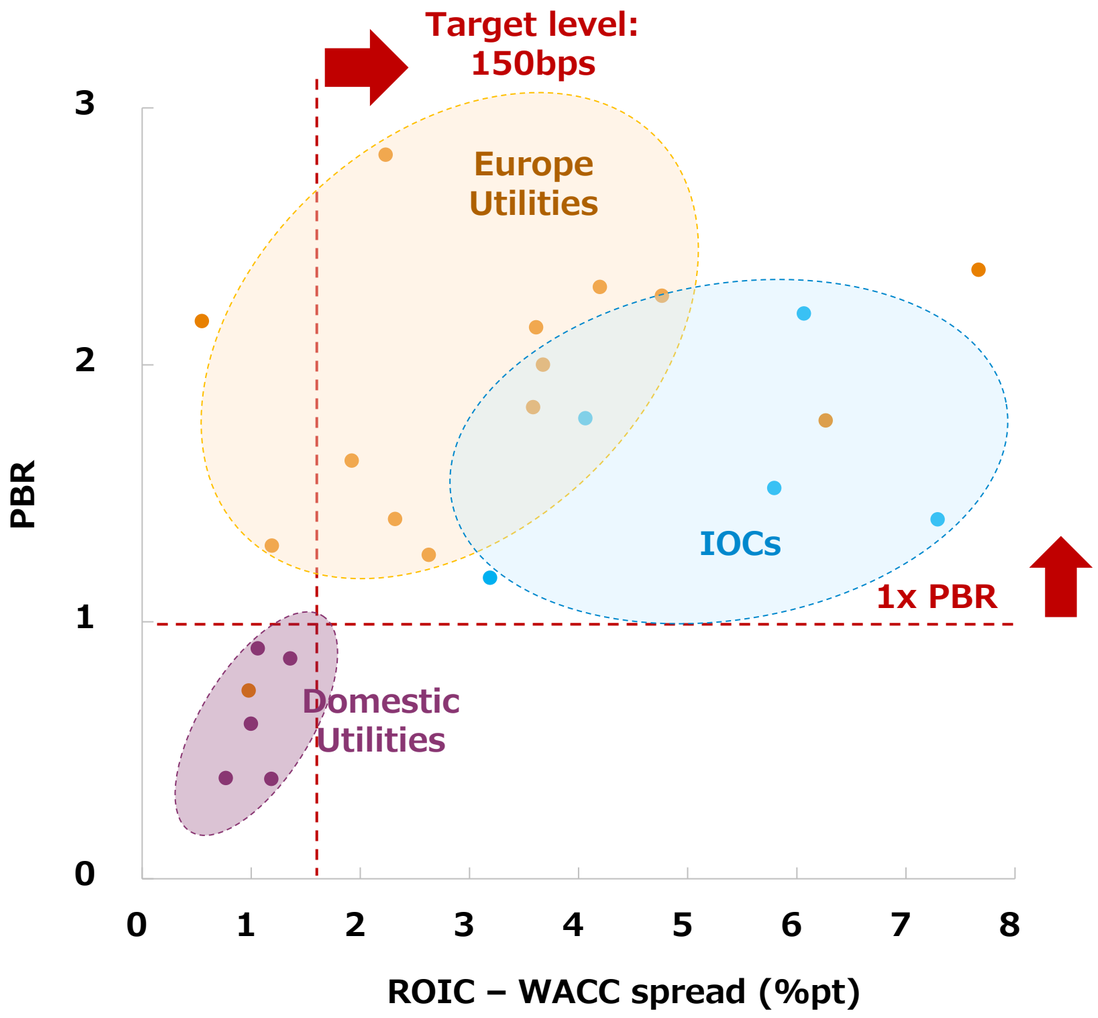
*Excludes the effect of fuel cost adjustment

Establish financial KPIs that deliver capital efficiency and financial soundness to maintain a strong credit rating

- Strong emphasis on capital market valuation to achieve a PBR of 1x or higher
- Target levels in line with or exceeding global peers

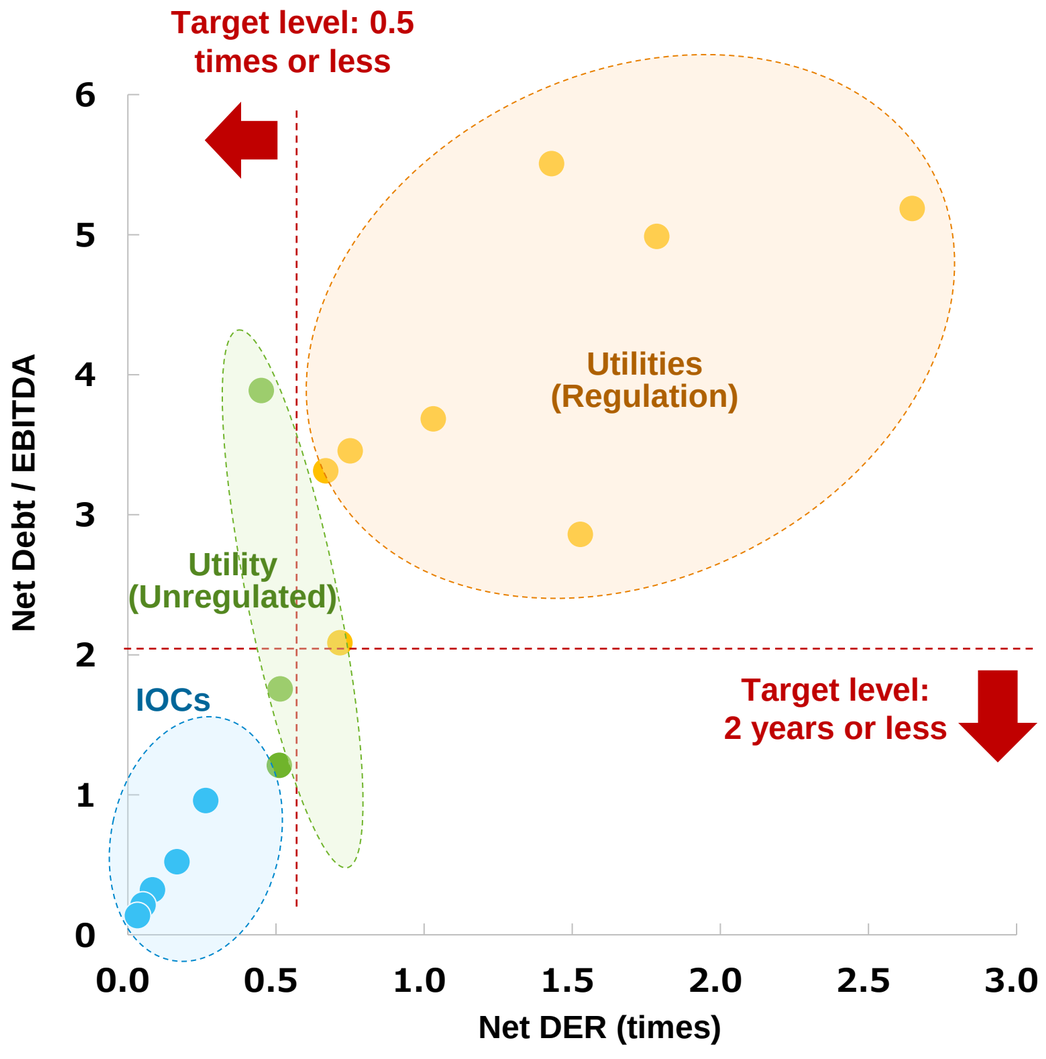
ROIC-WACC spread(1)

ROIC-WACC spread must exceed 150bps to obtain a capital market valuation (PBR > 1)



Net DER and Net Debt/EBITDA(2)

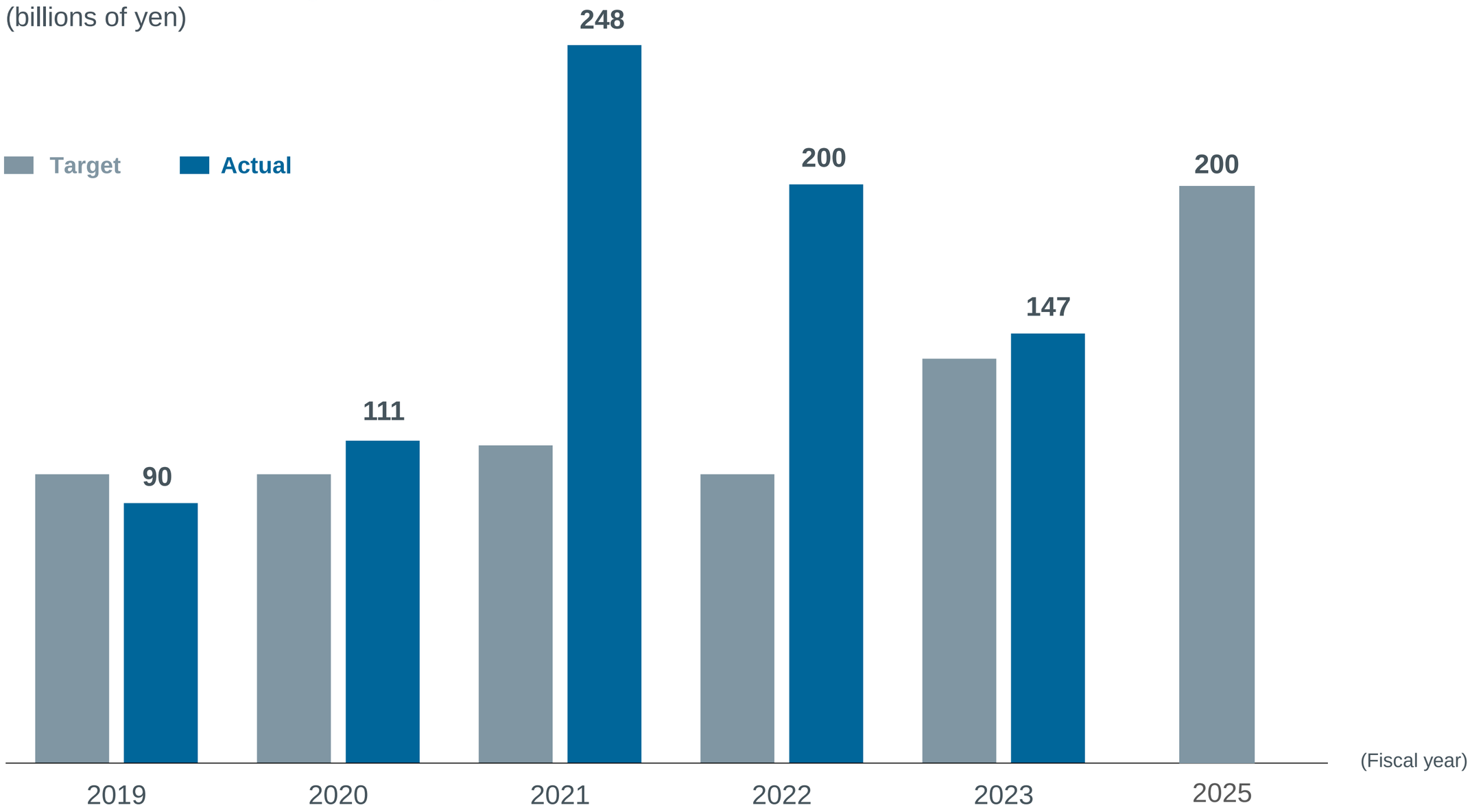
Aim for financial soundness comparable to that of non-regulated utilities in Europe



Track record of exceeding profit targets set in the past and maintained outlook for FY2025

Net income excluding time lag (*)

(billions of yen)



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*The target for profit for the period is the business plan announced in April 2019 for fiscal years 2019 through 2021, the new management target announced in October 2022 for FY 2022, and the new management target announced in May 2022 for FY 2023 through 2025.

Aim to achieve sustainable growth through flexible investment allocation

- Flexible allocation of operating cash flow into the three strategic business areas (SP) of the growth strategy, while considering market environment, technological innovation and political trends
- Enabling sustainable growth shielded from environmental and political challenges

Capital Allocation(1)

Cash-in

Sale of Equity, etc.: 1 trillion yen

Operating Cash Flow: 5.5 trillion yen

Cash-out

Shareholder Returns, etc.: 1 trillion yen

Procurement and Repayment

Investment Cash Flow: 5 trillion yen

Capital Investment

Promptly change investment allocation

Example: Built-in flexibility to change actual investment allocation in response to changing market conditions

LNG
1–2 trillion yen

Renewable
1–2 trillion yen

Hydrogen & Ammonia
1–2 trillion yen

Target Scale by FY 2035

LNG Transaction Volume
At least 35 million tons

Cumulative Capacity Developed
20 GW(2)

Hydrogen & Ammonia Transaction Volume Approx. 7 million tons(3)

(1) Accumulated estimates for fiscal years 2024 through 2035
(2) Assumes disciplined investment decisions for high-quality projects while assessing market conditions
(3) Details of this initiative will be elaborated in stages based on policy and other assumptions. If assumptions are substantially changed, they will be reviewed.

3

Towards the Realization of JERA CO_2 Zero Emissions 2050

01 | Steady Progress Towards Zero Emissions in Japan

02 | Working Towards Zero Emissions in All Countries

03 | Reducing NOx/SOx Alongside CO_2

04 | Preparing for Increases in Electricity Demand

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JERA is one of the first domestic operators to announce its commitment to the environment

JERA Zero CO_2 Emissions 2050 (announced on October 13, 2020)

2030

CO_2 Emissions Intensity

-20% less than the government outlook*

* Compared to the long-term energy supply-demand outlook for FY 2030 as set by the government.

JERA is actively working to reduce CO_2 emissions. In its domestic operations, JERA aims to achieve the following by FY 2030:

- Close all inefficient (supercritical or less) coal power plants and conduct demonstration tests of ammonia substitution 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.

2035

CO_2 Emissions

-60% reduction or more

JERA will aim to reduce CO_2 emissions from its domestic operations by at least 60% (compared to FY 2013) by FY 2035 through the following:

- Strive to develop and adopt renewables in Japan given the expanded adoption of renewables in line with the national government's 2050 carbon neutral policy.
- Work to reduce carbon emission intensity from thermal power generation by promoting hydrogen and ammonia substitution.

2050

CO_2 Emissions

0

JERA is committed to achieving zero CO_2 emissions from its domestic and overseas operations by 2050.

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JERA Zero CO_2 Emissions 2050 Roadmap and JERA Environmental Targets are based on steady advances in decarbonization technology, economic rationality, alignment with policy, and the business environment in which they will be realized.

Leading the decarbonization of Japan's power sector with renewables and zero-emissions thermal power

- Promote zero-emissions thermal power generation by switching to hydrogen-based fuels while promoting the removal of coal-fired power generation by shutting down and decommissioning of power plants and converting to ammonia
- Consider CCS and CCUS technology developments as zero-emission enablers.
- Promote the development of renewable energy, especially offshore wind energy

Today - → **2030 -** → **2040 -**

- 2030: CO_2 Emissions Intensity **-20%**
- 2035: CO_2 Emissions of at least **-60%**
- 2050: JERA **Zero CO_2 Emissions**

Inefficient Coal-Fired Thermal
Coal → Total Shutdown

High-Efficiency Coal-Fired Thermal Needed for Stable Supply (Ammonia-Fired Thermal)
Coal → Min. 20% Substitution → Min. 50% Substitution → 100% Ammonia Substitution(2)

Coal-Fired Thermal In-House Power Generation Customers
Coal → LNG

LNG-Fired Thermal (Hydrogen-Fired Thermal(1))
LNG → Demonstration Testing of Hydrogen Substitution → Full-Scale Operation → Hydrogen Substitution(

Renewable Energy (Offshore Wind Power)
Promote further development of offshore wind energy: Off Oga City, Katagami City, and Akita City → Practical application of floating technology

Contribute to achieving a hydrogen society by expanding commercial distribution to other industries

Promote the introduction of green hydrogen and ammonia

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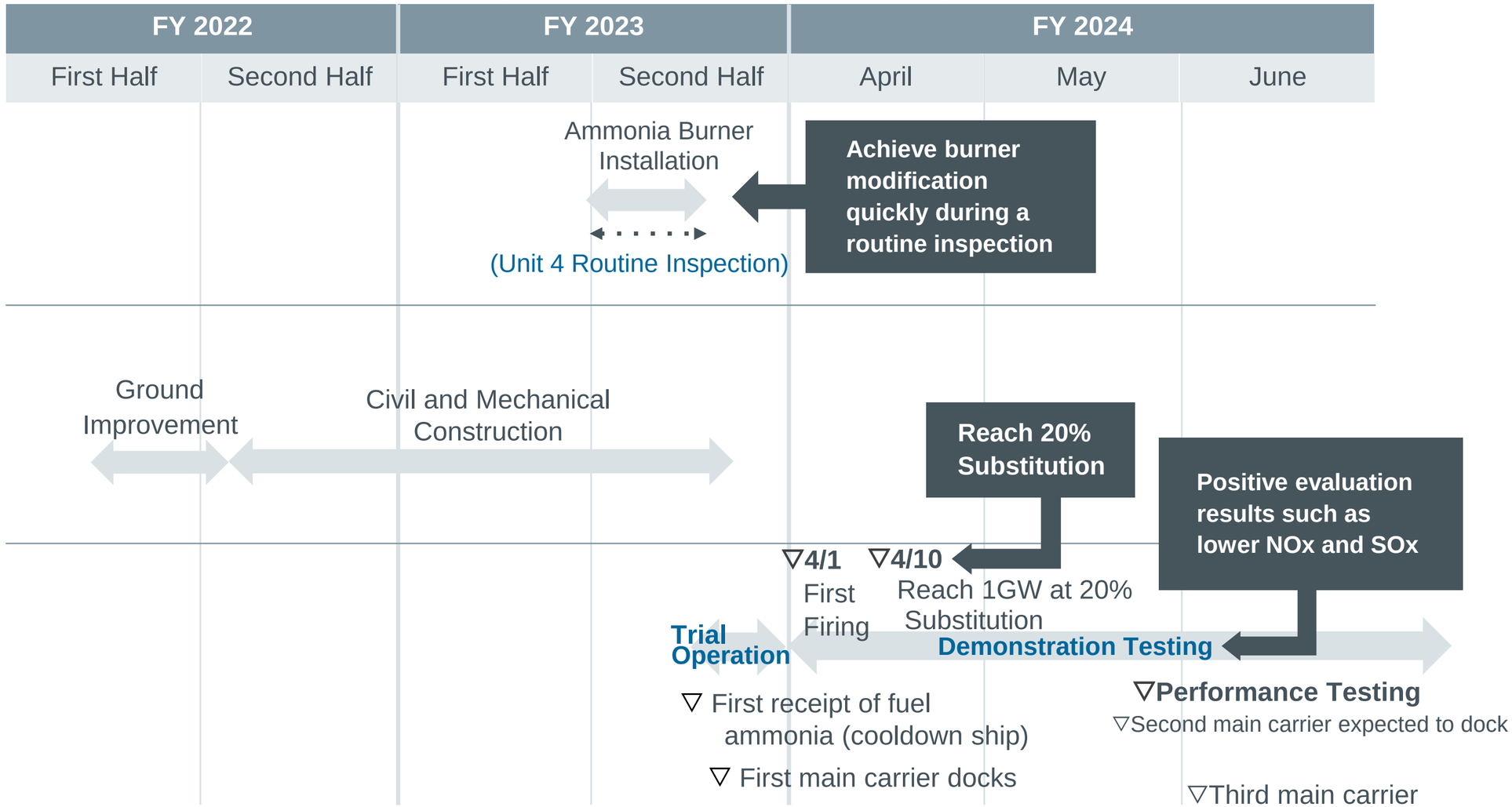
These initiatives will gradually be specified in more detail as government prerequisites become clearer, and reviewed if there are major changes in such conditions. (1) Consider the use of CO_2-free LNG (2) Using green or blue hydrogen/ammonia

Steady progress towards zero-emissions thermal power using ammonia at Hekinan Thermal Power Station

- Continue operation of the Hekinan Thermal Power Station to ensure a stable power supply and complete modification work on a 20% ammonia conversion burner during Unit 4's three-month turnaround.
- On April 1, the world's first large-scale commercial coal-fired power plant was fired for the first time, and a 20% ammonia conversion (1) . This 20% conversion was successfully achieved on April 10.
- NOx emissions were confirmed to be equal or lower. SOx emissions were reduced by approximately 20% compared to those before ammonia conversion in the coal mono-combustion process. No N2O was found to be above the detection limit(2).

Demonstration Testing Facility Construction and Testing Schedule

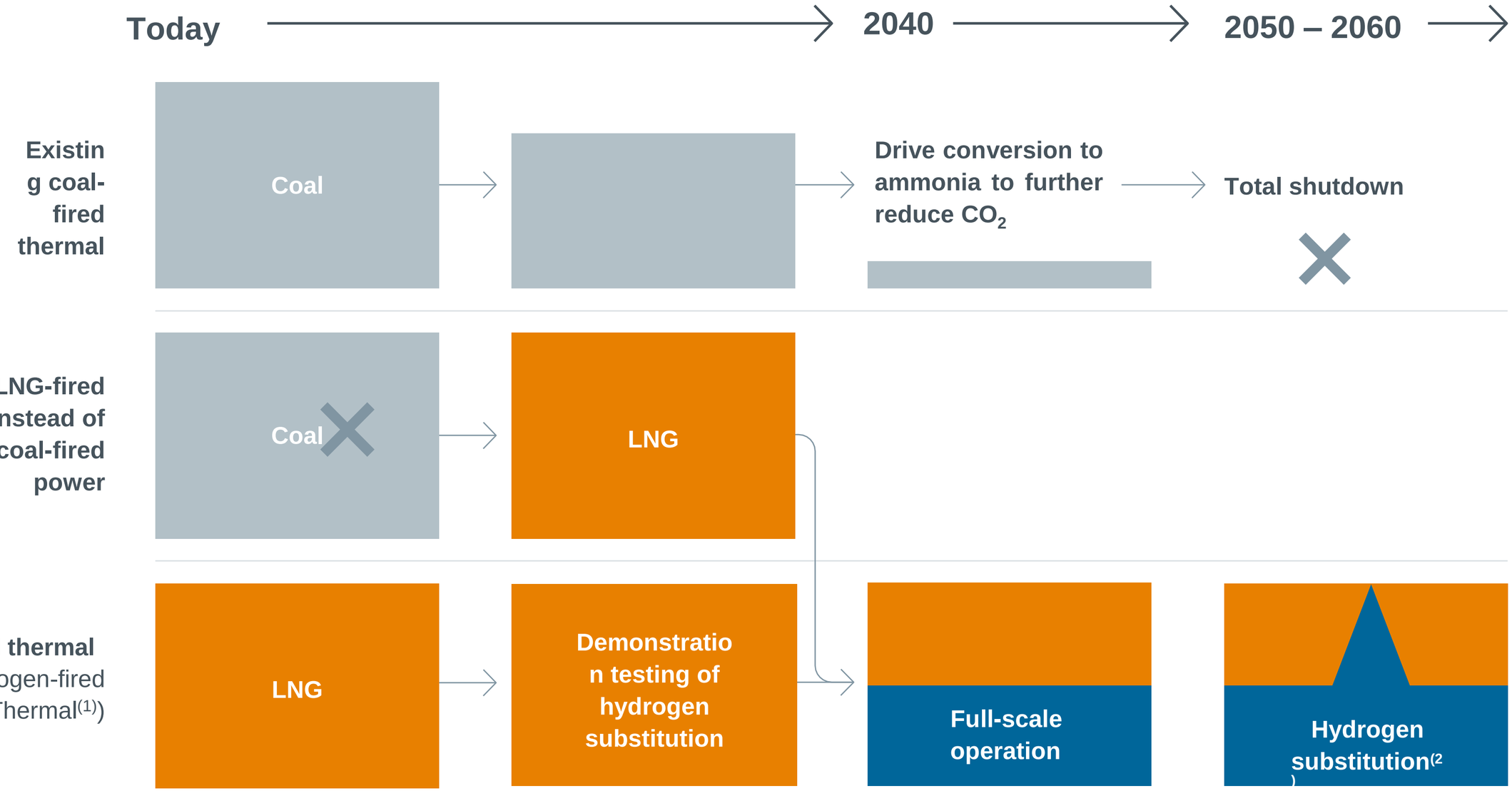


(1) A NEDO "Development of Technologies for Carbon Recycling and Next-Generation Thermal Power Generation / Research, Development, and Demonstration of Technologies for Ammonia Co-Firing Thermal Power Generation" project (Project entities: JERA/IHI)
(2) Final evaluation will be conducted separately

Expanding the use of LNG in Asia is key to promoting a low-carbon society

- First, develop LNG-fired power instead of new coal-fired power, thereby limiting the increase in CO_2 emissions associated with growing in electricity demand.
- While introducing distributed renewables in parallel and promote ammonia conversion of coal for the future.

Initiatives in Asia (Illustrative)

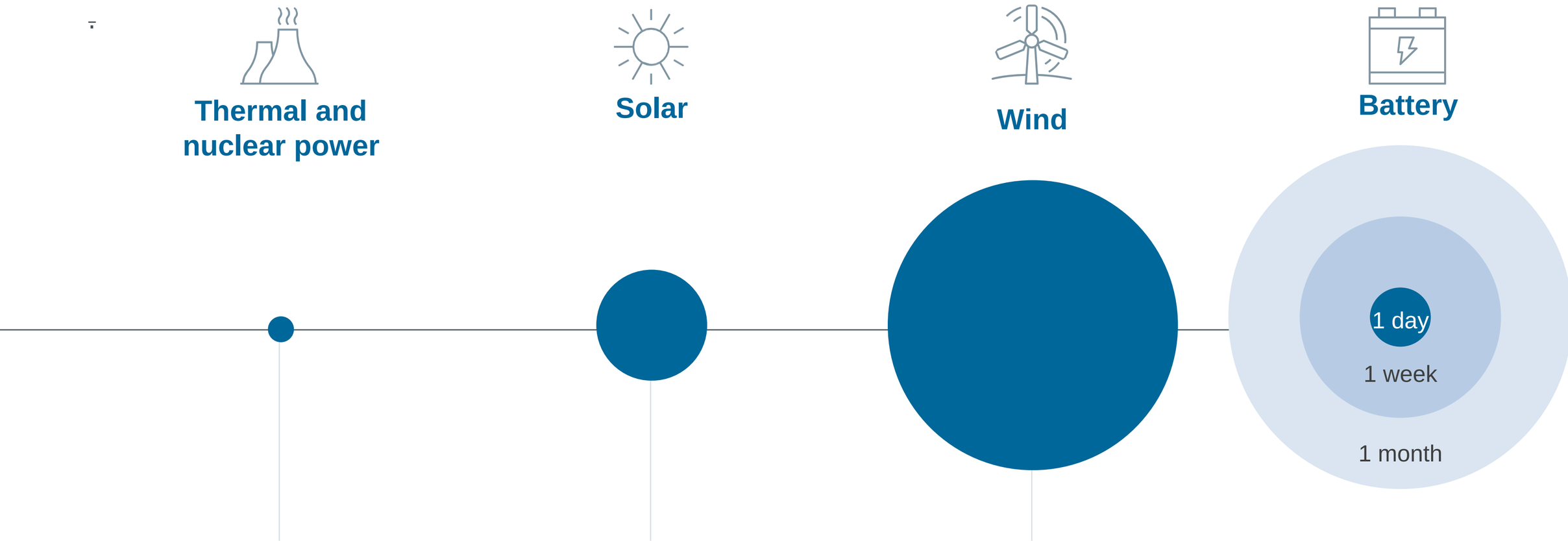


These initiatives will gradually be specified in more detail as government prerequisites become clearer, and reviewed if there are major changes in such conditions. (1) Consider use of CO_2-free LNG (2) Using green or blue hydrogen/ammonia

JERA optimally combines a variety of options to achieve decarbonization based on country and region-specific circumstances

- Multiple options are needed to ensure a stable supply of clean energy at an affordable price in every countries worldwide.
- Zero-emission thermal power is one of these options
- The optimal combination of options will vary from country to country/region, depending on geography, country size, level of economic development, etc.

Site area required for equipment with an output of 1 GW



*The battery capacity required for storage batteries varies depending on the period of output maintenance, and the site area varies. 1 Output maintenance periods of up to several hours are common.

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Source: JERA based on the Agency for Natural Resources and Energy's "Japan's Energy Problems" and various press releases on the grid storage battery project.

Need for a combination of power sources and storage batteries to respond to short- and long-term fluctuations in supply and demand

- Countries and regions with large seasonal changes in electricity demand require a combination of power sources that can respond to these fluctuations

Reference: Electricity supply to meet demand fluctuations in Japan

Daily supply and demand image

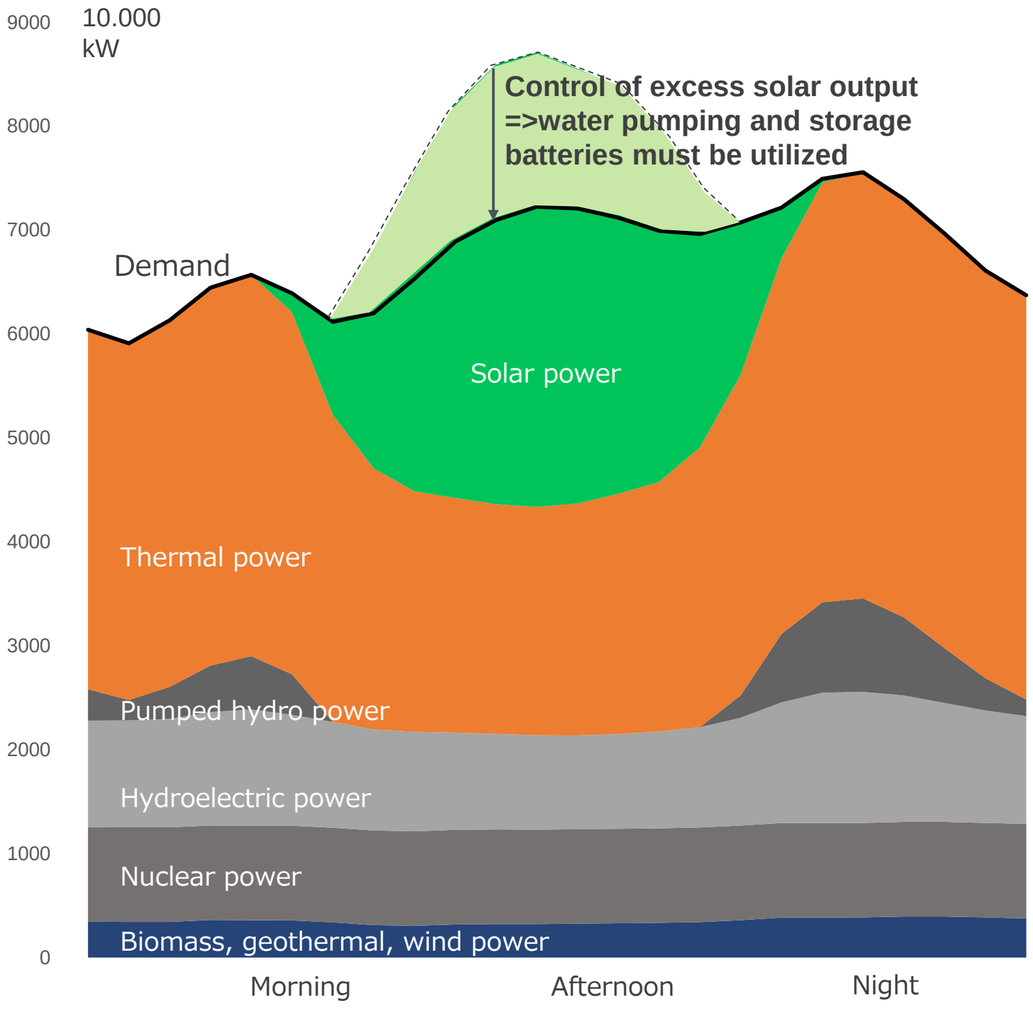
(example of May 4, 2023)

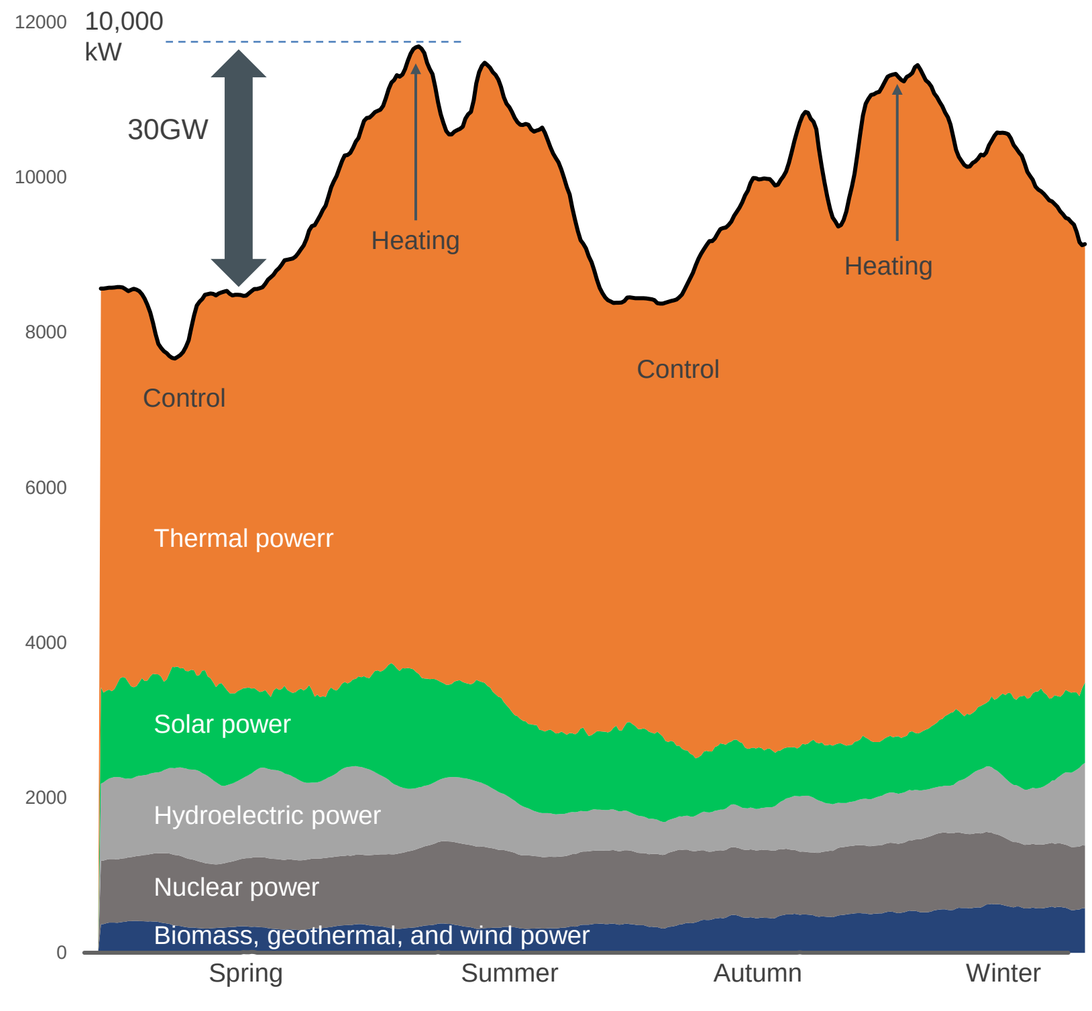
Thermal power generation and storage batteries are needed to deliver a stable constant energy supply during times of minimum solar power output.

Annual supply and demand image

(FY 2023 example)

Demand fluctuations between seasons are large (tens of GW× several months). Large scale battery storage technology is in its infancy meaning thermal power generation is needed to allow for adjustable power output.





Source: Compiled by JERA on the basis of supply and demand data of each power transmission and distribution company in Japan. Note:A moving average is used for visibility.

Reference: Differences in value generated by different power sources

	kWh value Generated electricity	kW value Capability to generate electricity	Environmental value CO_2 emissions	Short-term flexibility Ability to respond to fluctuations in demand due to day/night and daily weather changes	Long-term flexibility Ability to respond to fluctuations in demand due to different seasons and extreme weather conditions
Coal	○	○	×	△	○
LNG	○	○	△	○	○
Nuclear power	○	○	○	×	△
Solar power	○	△	○	×	×
Wind power	○	△	○	×	×
Battery	×	△	×	○	×
Zero emission thermal power	○	○	○	△ ~ ○	○

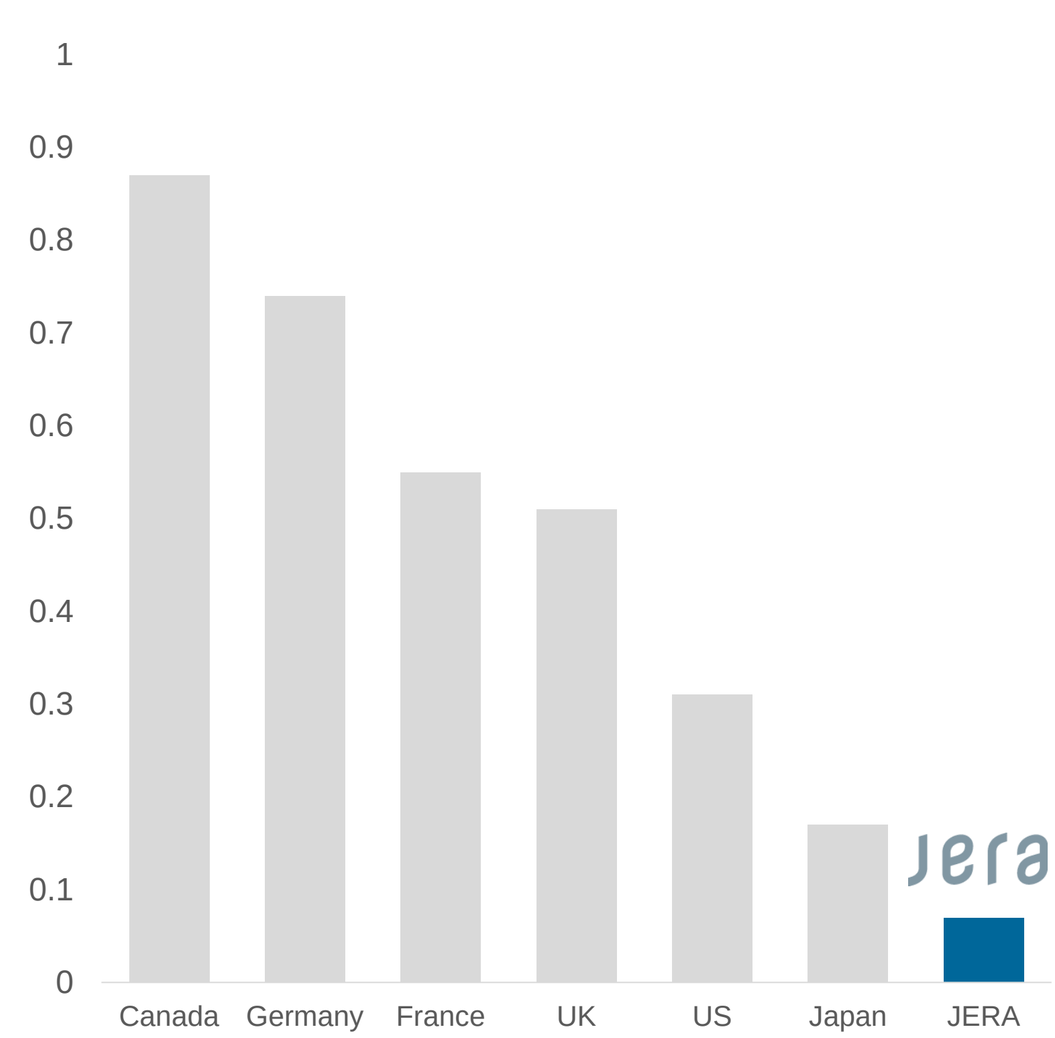
Energy for a New Era

NOx/SOx reduction is important not only for CO_2 emissions but also for ecosystem conservation

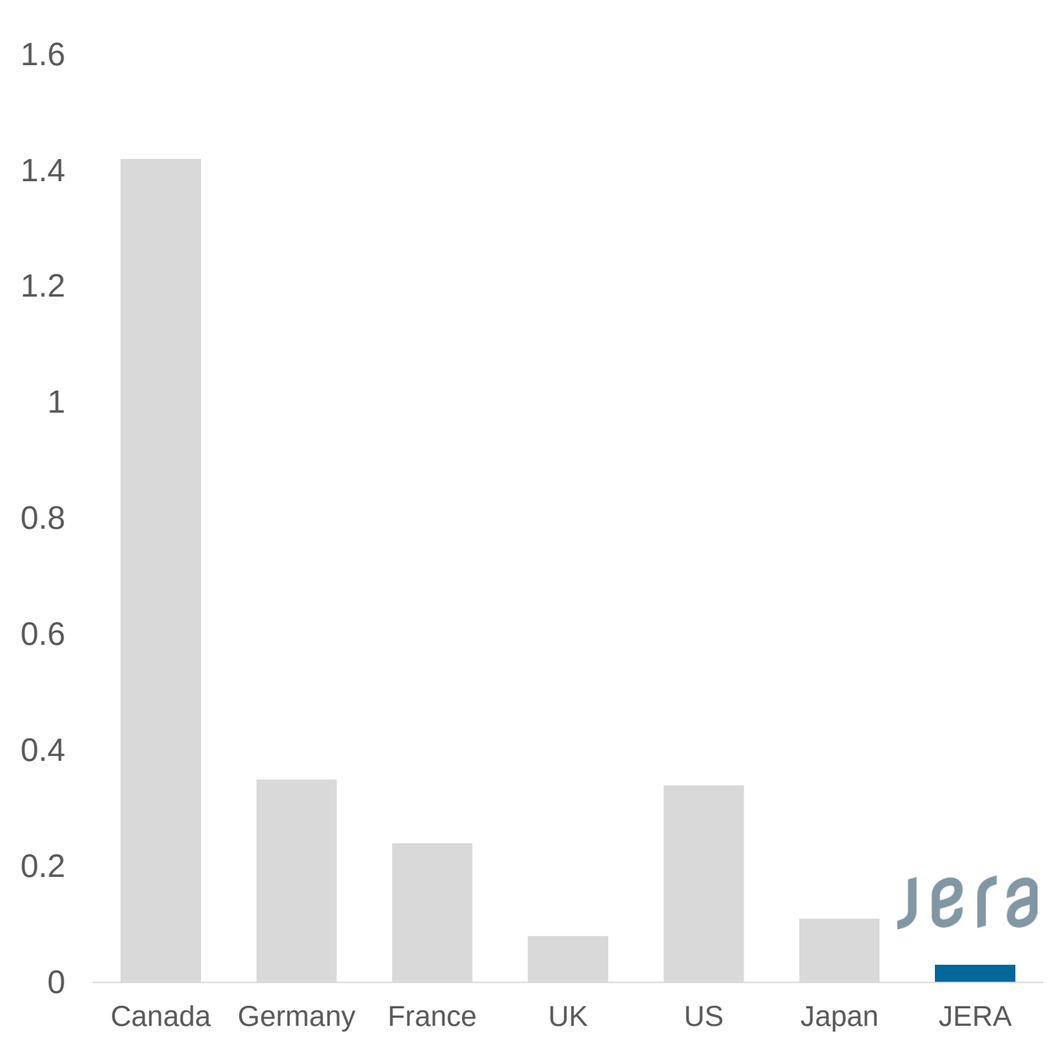
- JERA takes a broad view in supply of sustainable energy, not purely limited to GHG only
- Jera has succeeded in reducing NOx and SOx emissions to the lowest level globally
- JERA aims to deliver further reductions through adoption of new technologies such as low-NOx burners and high performance denitrogenation / desulfurization equipment

※ Positive evaluation results of 20% lower SOx levels and unchanged NOx levels.（P.24）

NOx Emissions



SOx Emissions



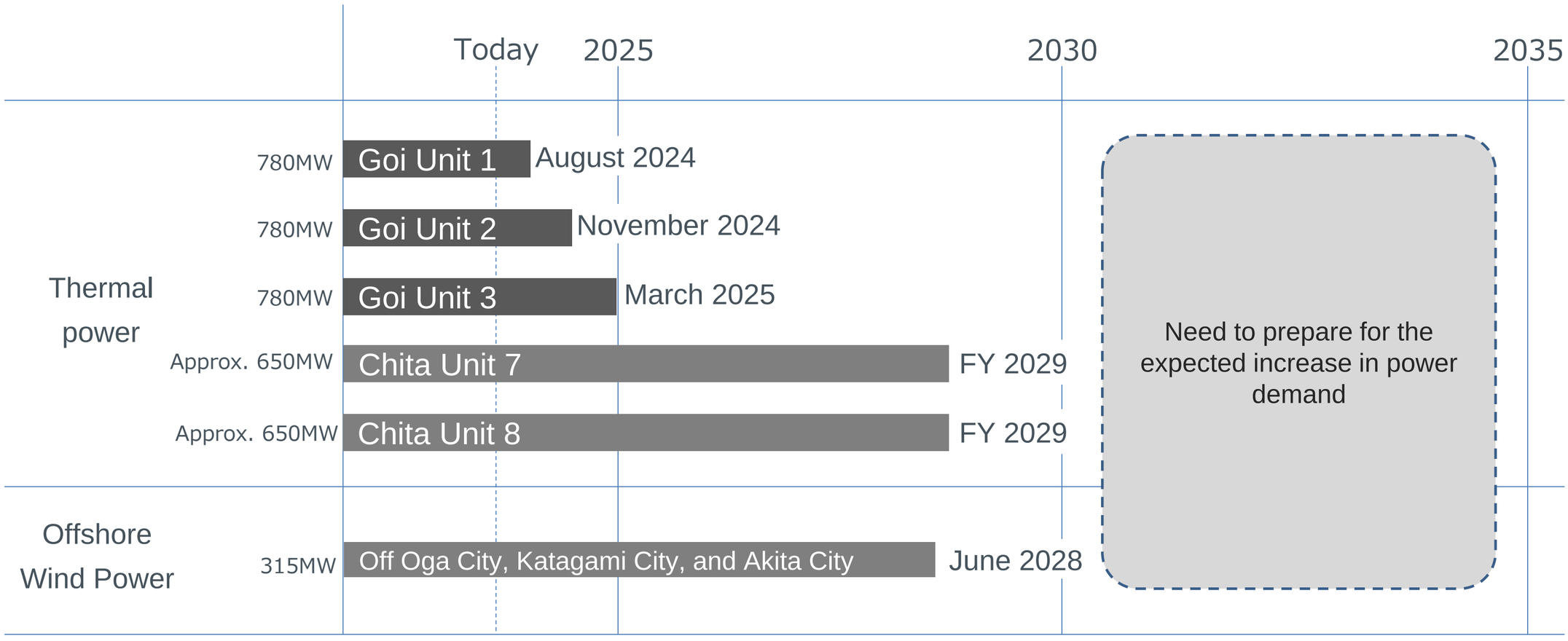
Energy for a New Era

Source: NOx emissions = OECD Statistics; Generated energy = IEA, World Energy Balances

Consider revising power sources development plans to prepare for potential increases in electricity demand

- JERA has maintained a stable supply base by replacing aging thermal power plants
- Going forward, JERA will drive the decarbonization of the energy sector, with a dual focus on renewables and zero-emission thermal power generation
- It is also necessary to prepare for the expected increase in DX related power demand such as data centers, AI, etc., and the return of the semiconductor industry to the domestic market.

JERA's power sources development plans in Japan

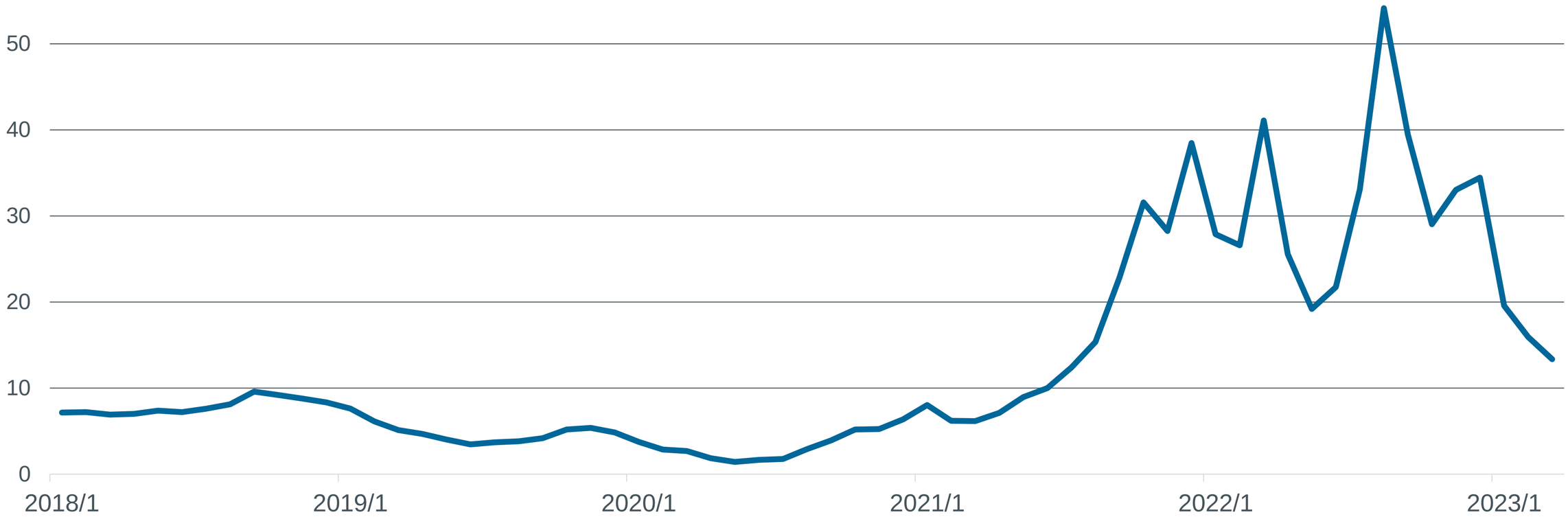


Appendix

Energy for a New Era

Amid global efforts to decarbonize, factors such as the invasion of Ukraine have driven resource prices sharply higher and created a crisis for stable energy supply

Trends in Gas Prices (NBP)



1 Weak winds in Europe cause a scramble for LNG to replace wind power.

2 The invasion of Ukraine spurs a sharp rise in resource prices.

3 Some Asian countries postpone LNG purchases, resulting in rolling blackouts and even decisions to rebuild coal plants. In Europe, some resumption of coal-fired thermal power to ensure a stable power supply.

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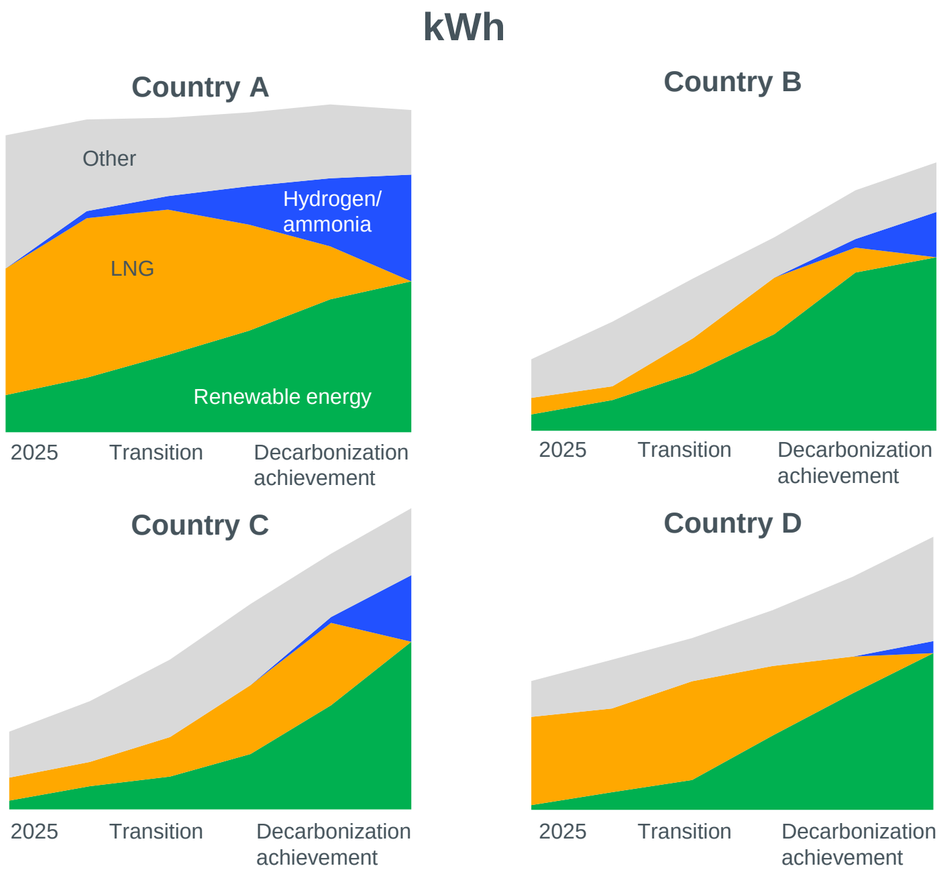
A diverse power mix is essential on the road to carbon neutrality with the optimal combination varying greatly by country and region

"Achieve the most economical decarbonization while maintaining a stable supply of energy”

Analysis of the optimal power supply configuration

Results of Analysis of Optimum Power Supply Configurations in Each Country

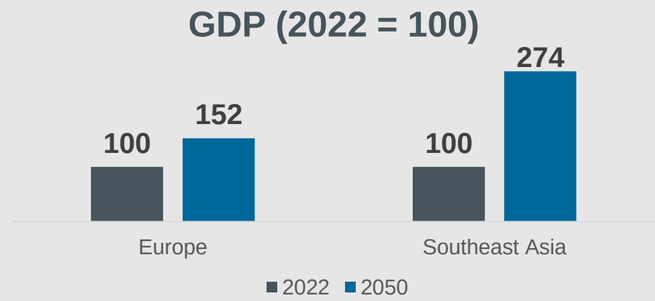
Not enough for one power type



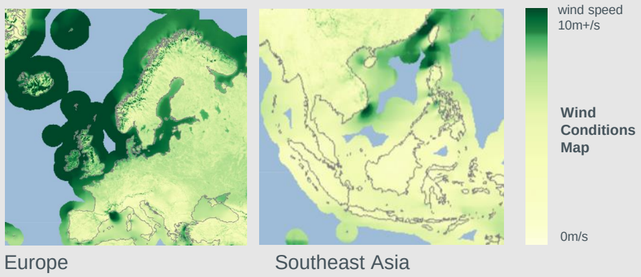
Main Factors for Determining an Optimal Roadmap

The optimal power supply configurations differ greatly depending on the individuality of countries and regions

Economic Situation



Renewable Energy Inventory



Power Lines Gas Pipelines

- **Europe:** international link lines and gas pipelines are well-developed.
- **Asia:** many countries are island nations with less established international energy connections..

Source: JERA analysis designed to minimize integration costs, including the costs not only of electricity generation but also transmission and distribution facilities and storage batteries.

Source: Global Wind Atlas IEA, World Energy Outlook 2023, Stated Policy Scenario

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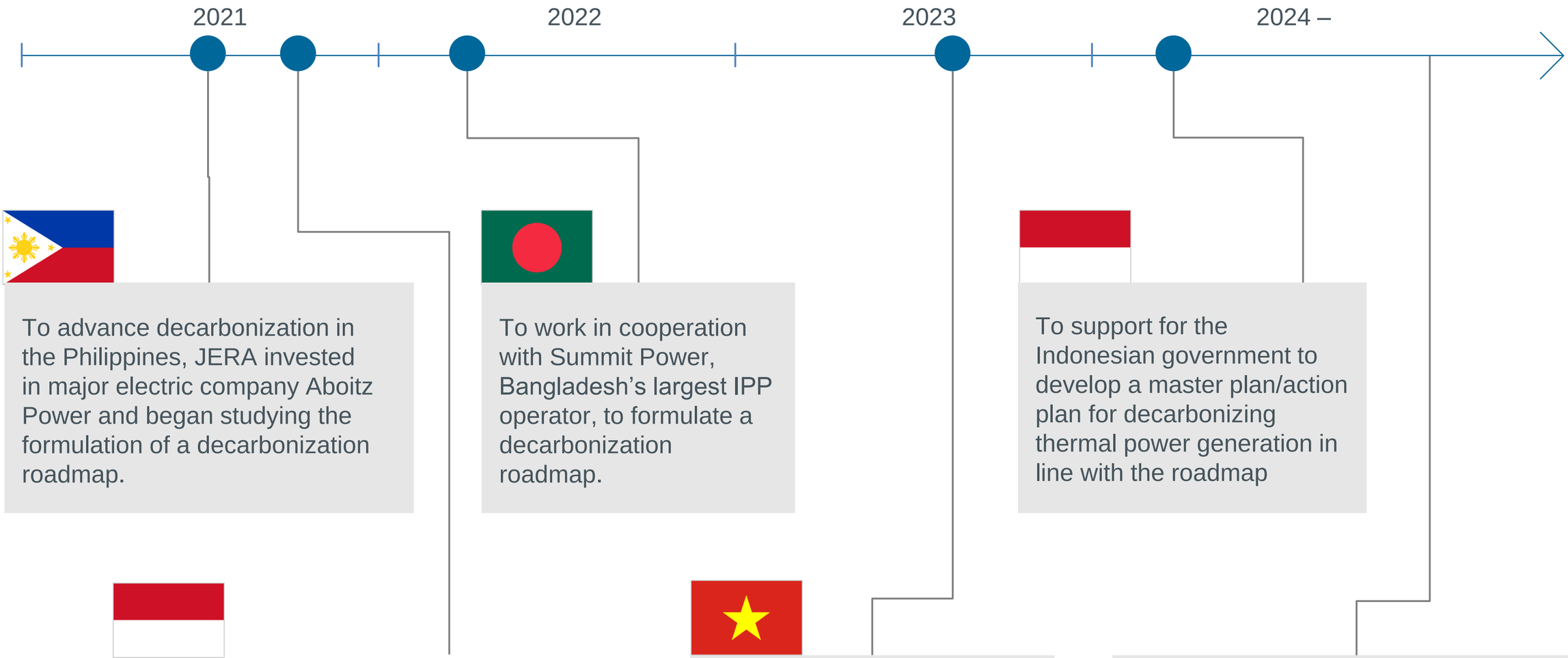
Significant progress with numerous initiatives offering three-pillar solutions

- JERA already started to take on the challenge of providing unique solutions
- Clear focus on working with countries in Asia at present

Main Initiatives for Providing Three-Pillar Solutions



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Business development function with focus on global/local partnerships

- Integration of COE into Global (COE:Center of Excellence)
- Local, community-based development
- Global and local align as partners to form best projects

JERA Nex
Global Renewable Energy Base
300
People

JERA Nex, a renewable energy platform, established in 2024

JERA HQ
300
People

JERA Asia
IPP bases in Asia
40
People

JERA Middle East & Africa
IPP bases in the Middle East
20
People

JERA Australia
Upstream business based in Australia
40
People

JERA Americas
North America-based IPP and LNG upstream business sites
170
People

JERA Nex consolidates COEs in the UK and builds a global collaboration system with local bases in Europe, North America, Taiwan, Japan, etc.

Note: The number of personnel at JERA Nex is approximate as of April 2024 and includes, in part, personnel outside the UK.
Note: Other personnel numbers are approximate as of December 2023.

O & M functions: Digital Power Plant

- Successful completion of PMI allowing integration of best practices from TEPCO, Chubu Electric, or the best global standard
- Digital excellence in accumulated knowledge

Engineering knowledge built over many years with one of the world's largest power generation facilities

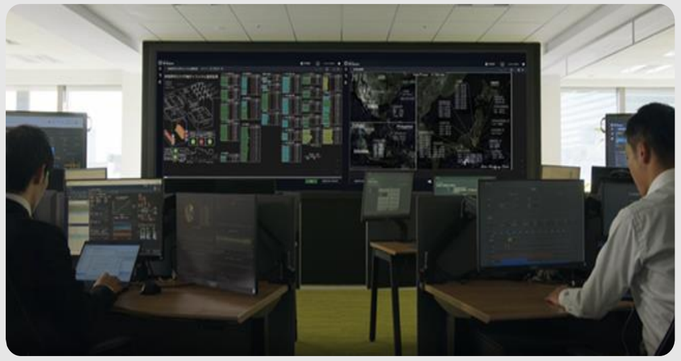
×

State-of-the-art digital technology data science

JERA-DPP (R) (Digital Power Plant)

Conduct predictive monitoring of and provide on-site support for power station facilities around the world

G-DAC = Global-Data Analyzing Center



We use AI to gather and analyze big data from around the world in real time, uncovering signs of impending malfunction and places for operational improvement

Results of the Central Analysis

On-Site Data

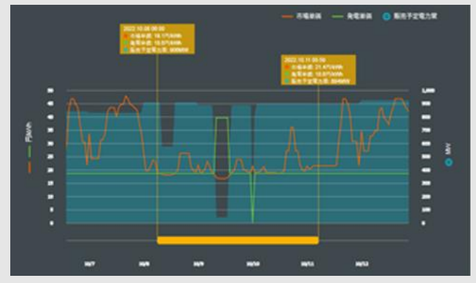
Combining applications of specialized O&M knowhow

DPP package

Key app examples

Abnormal Predictive Analysis App

Market Forecast Work Arrangements App



We have created over 20 apps that leverage years of engineering knowledge, enhancing on-site decision-making and operational improvements.

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More on DPP: Digital Power Plant for AI in the field =DPP | DISCOVER JERA | JERA

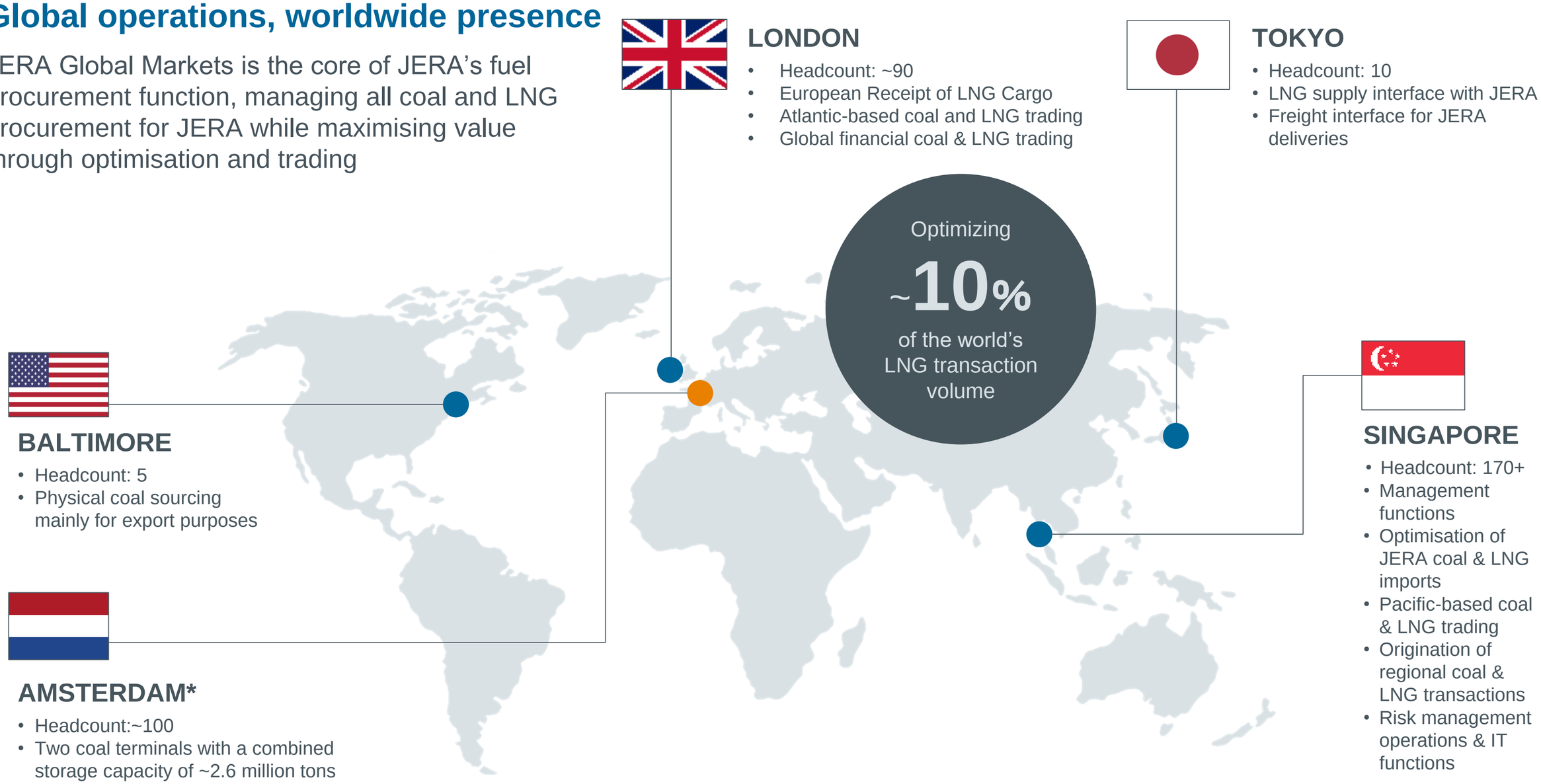
Optimization function: Global asset-backed trading

- JERAGM*1 has become one of the world's largest and most capable fuel trading companies, optimizing roughly 10% of the world’s LNG transaction volume

- We are further strengthening our global electricity optimization capabilities by applying knowledge from the success of our domestic electricity trading company JERA PT*2

Global operations, worldwide presence

JERA Global Markets is the core of JERA’s fuel procurement function, managing all coal and LNG procurement for JERA while maximising value through optimisation and trading



LONDON

- Headcount: ~90
- European Receipt of LNG Cargo
- Atlantic-based coal and LNG trading
- Global financial coal & LNG trading

TOKYO

- Headcount: 10
- LNG supply interface with JERA
- Freight interface for JERA deliveries

BALTIMORE

- Headcount: 5
- Physical coal sourcing mainly for export purposes

AMSTERDAM*

- Headcount:~100
- Two coal terminals with a combined storage capacity of ~2.6 million tons

SINGAPORE

- Headcount: 170+
- Management functions
- Optimisation of JERA coal & LNG imports
- Pacific-based coal & LNG trading
- Origination of regional coal & LNG transactions
- Risk management operations & IT functions

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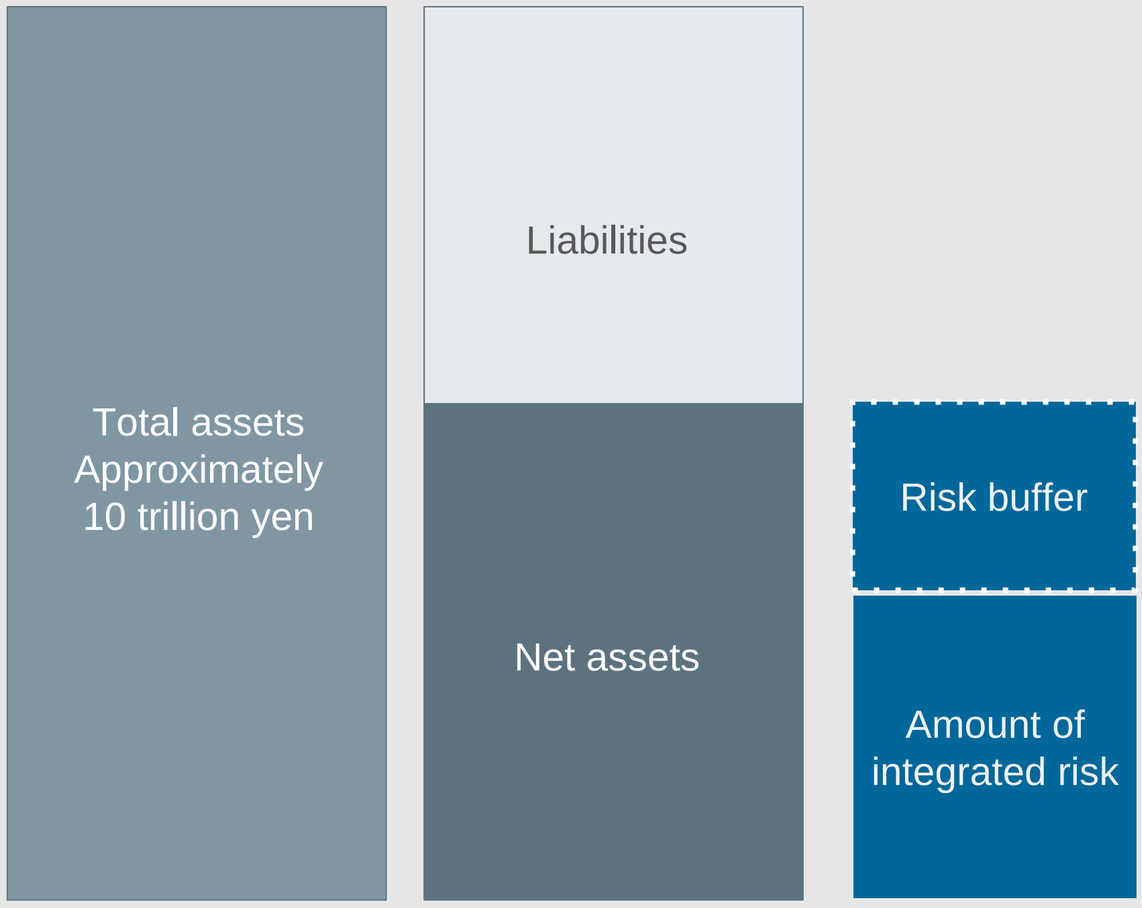
^In 2023, JERA Global Markets completed the sale of the Rietlanden Terminals to the Rhenus Group. The divestment is consistent to the sustainability strategy of the Port of Amsterdam and will take place over two tranches across 2023 and 2027.

Active financial strategy balance sheet management

- Hold capital larger than the integrated risk amount and maintain a A credit rating

Image of FY2035



Balance Sheet Management Toward FY 2035

Credit ratings

A

rating

Net DER

0.5

times or less

Net Debt / EBITDA

2

years or less

* JERA defines its risks across into three categories: market risk, credit risk, and operational risk. The amount of integrated risk is quantifiled from market risk and credit risk. The difference between the amount of integrated risk and risk capital is defined as a "risk buffer." JERA has a policy of maintaining a certain level of risk buffer in consideration of the existence of operational risk.

Towards the reduction of GHG emissions across the entire lifecycle

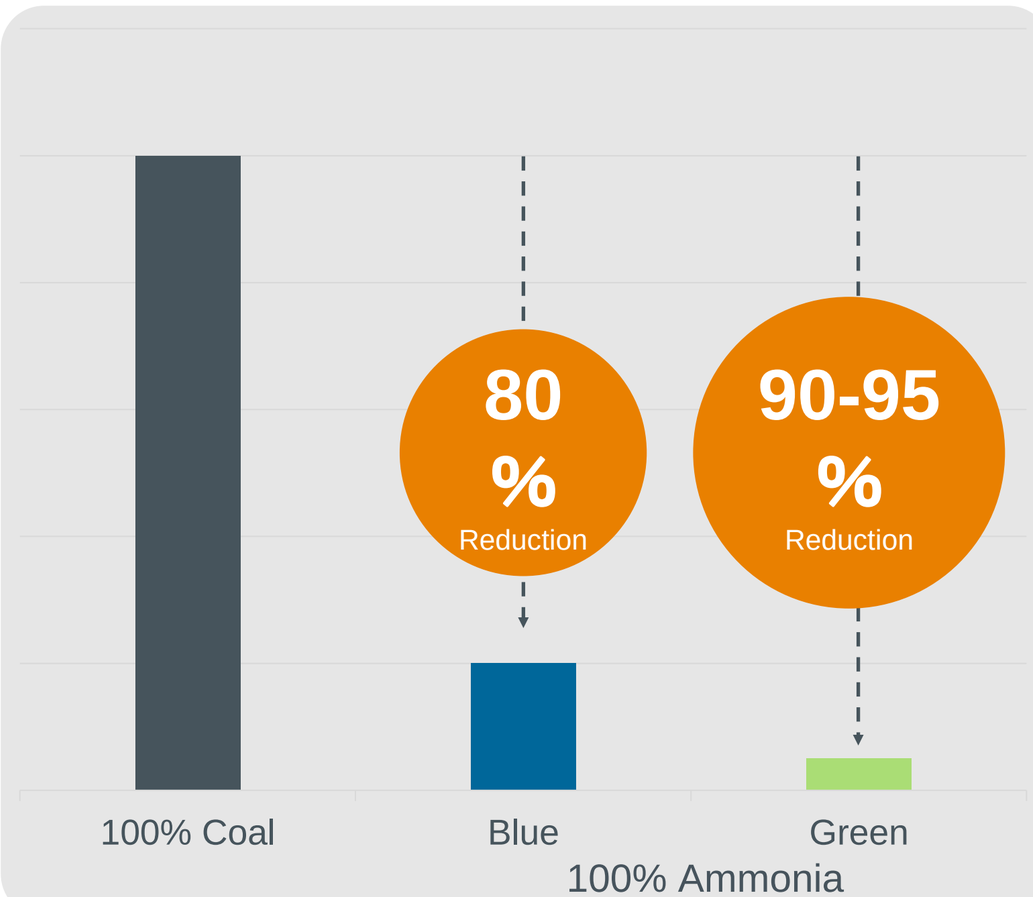
- Reduce of GHG emissions not only by switching 100% from coal to ammonia but also across entire lifecycle including mining and production

JERA Efforts

- Convert coal-fired thermal to 100% ammonia-fired thermal
- For the ammonia used, convert to 100% blue or green ammonia, which emits less GHG during production.
- Develop our own renewables and expand production of green ammonia. In addition, build a value chain that further reduces GHG emissions across the lifecycle for blue ammonia.

Future Lifecycle GHG Reduction Effect

Lifecycle GHG Reduction Effect of Converting Coal to 100% Ammonia (IEA Estimate)



Source: IEA, The Role of Low-Carbon Fuels in the Clean Energy Transitions of the Power Sector

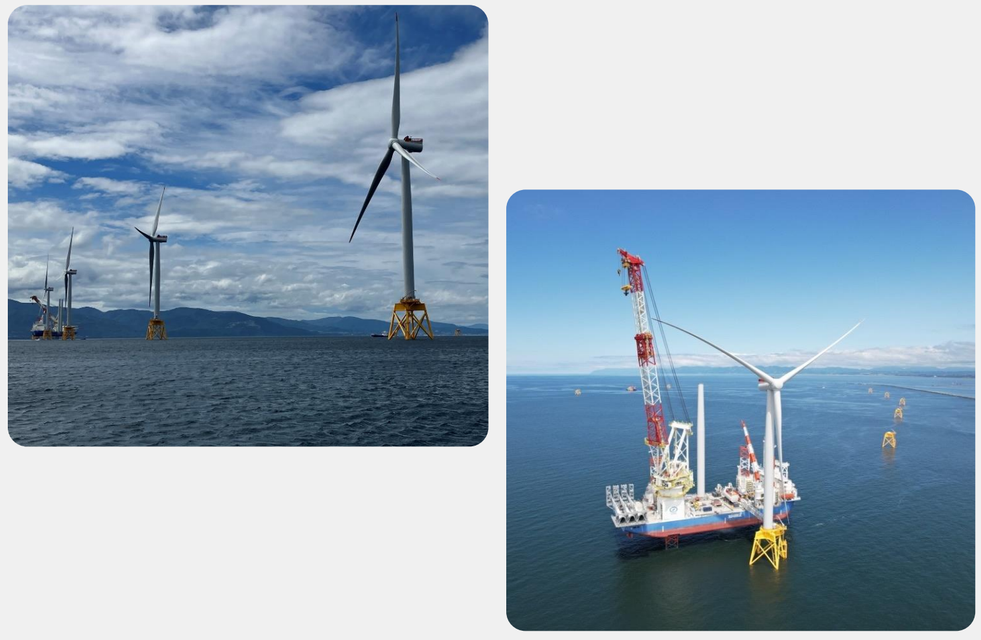
Development of offshore wind power initiatives in Japan

- JERA is now promoting the offshore wind power project in Oga City, Katagami City, and Akita City in Akita Prefecuture selected in public sector tenders.
- JERA jointly operates Ishikari Bay New Port with Green Power Investment, a leading offshore wind power company in Japan

Oga, Katagami, and Akita

Output	315MW
Start of operation	Scheduled for June 2028

Ishikari Bay New Port, Hokkaido



Output	112 MW
Start of operation	January 1, 2024

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