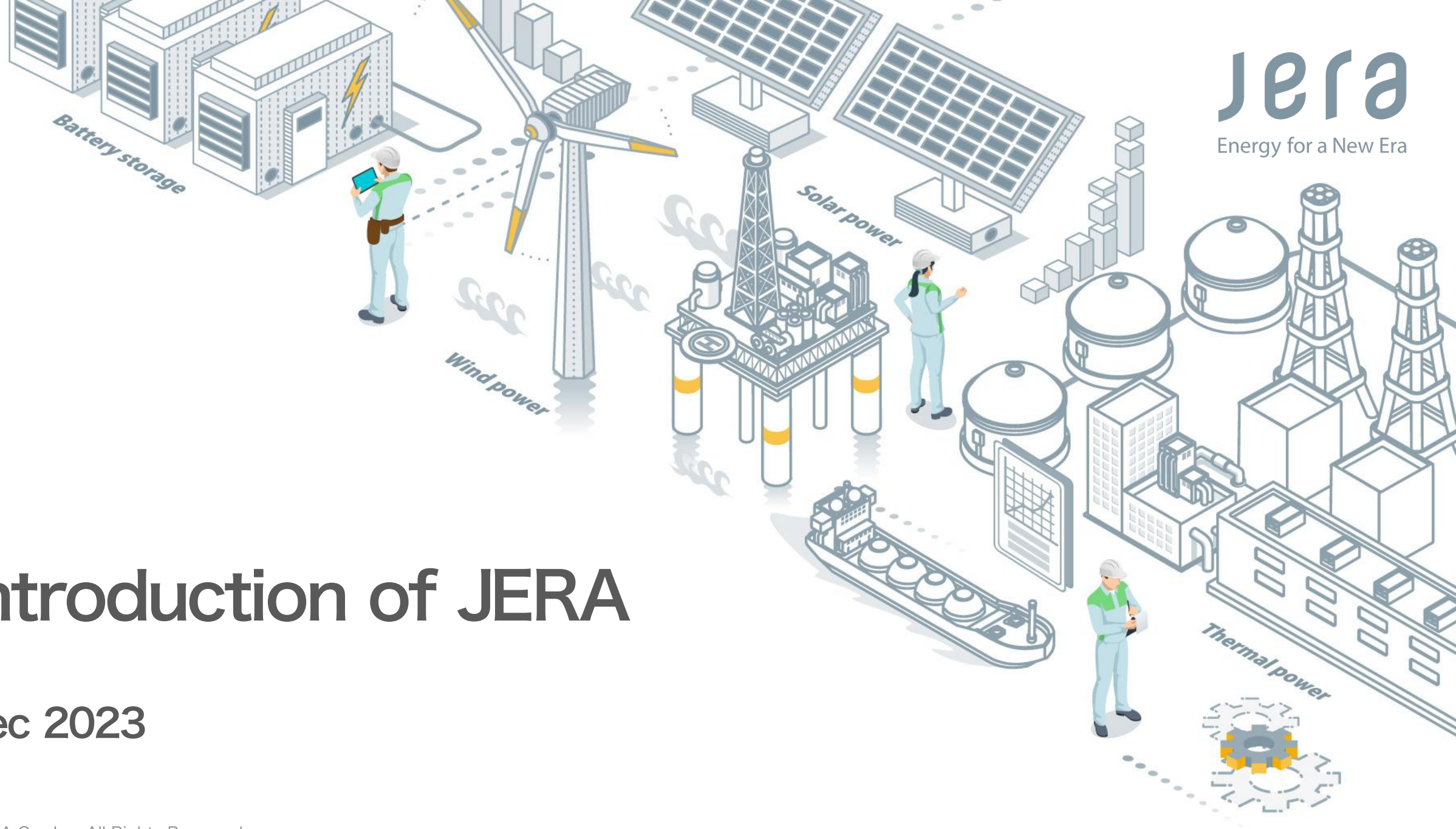


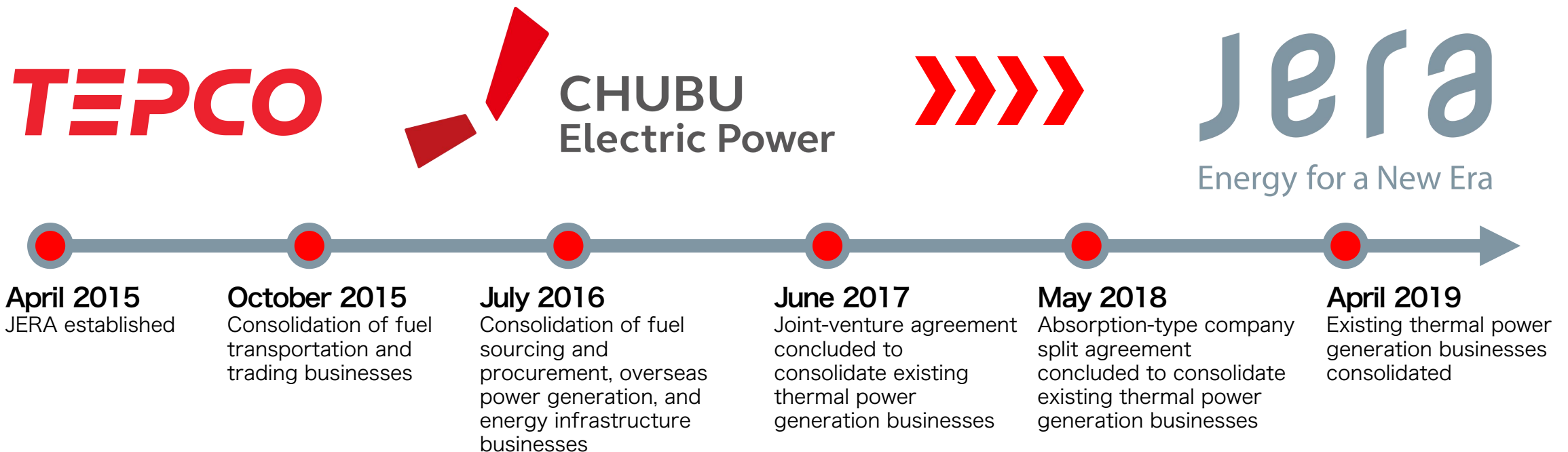
Introduction of JERA

Dec 2023



JERA's Origins: The Path to Business Consolidation

JERA was established through the consolidation of the fuel and thermal power departments of the Tokyo Electric Power Company and the Chubu Electric Power Company with 50% investment each, with the concurrent aims of creating an energy company capable of competing in the global energy market and providing a stable supply of globally competitive energy, all while increasing corporate value.



We both expanded and consolidated our value chains in just four years after our founding in April 2015.

JERA's Value Chain and Company Overview

- Covering entire value chain of fuel and thermal power generation business
- LNG transaction volume is approximately 35 MTPA, which is among the largest in the world.

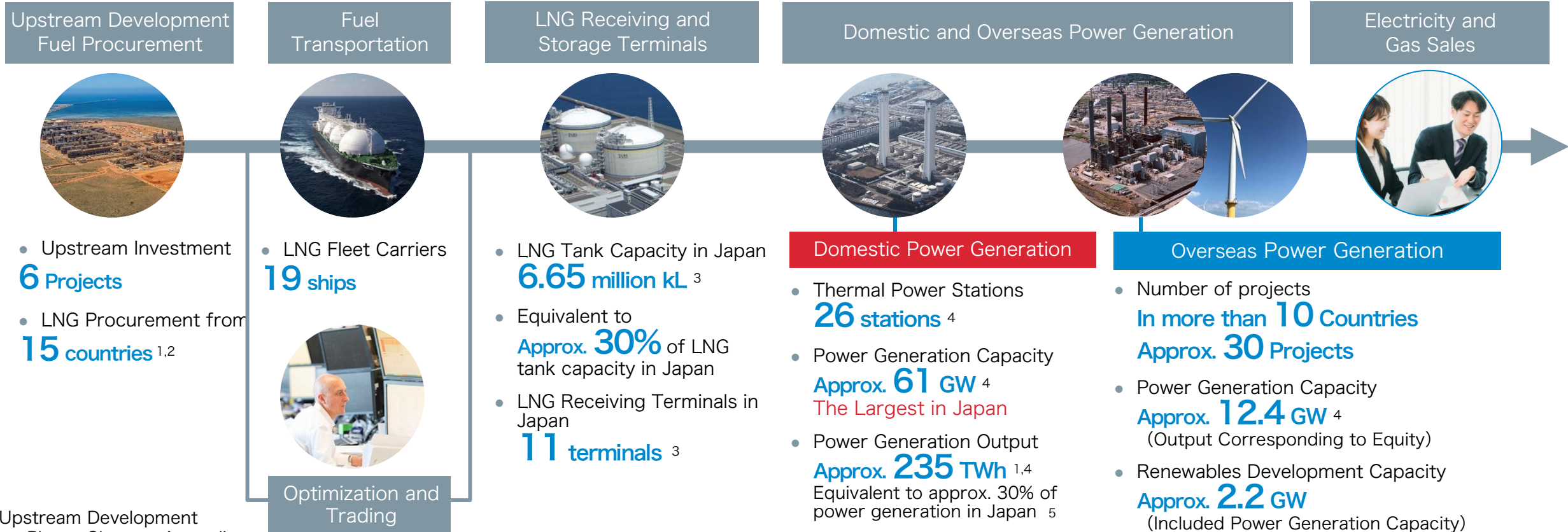
Total Assets
Approx. JPY
9.1 trillion ⁶

LNG Transaction Volume
(Annual) ¹
Approx. **35** MTPA
Among the largest in the world

Sales
Approx. JPY
4.7 trillion ^{1,6}

Current as of March 31, 2023

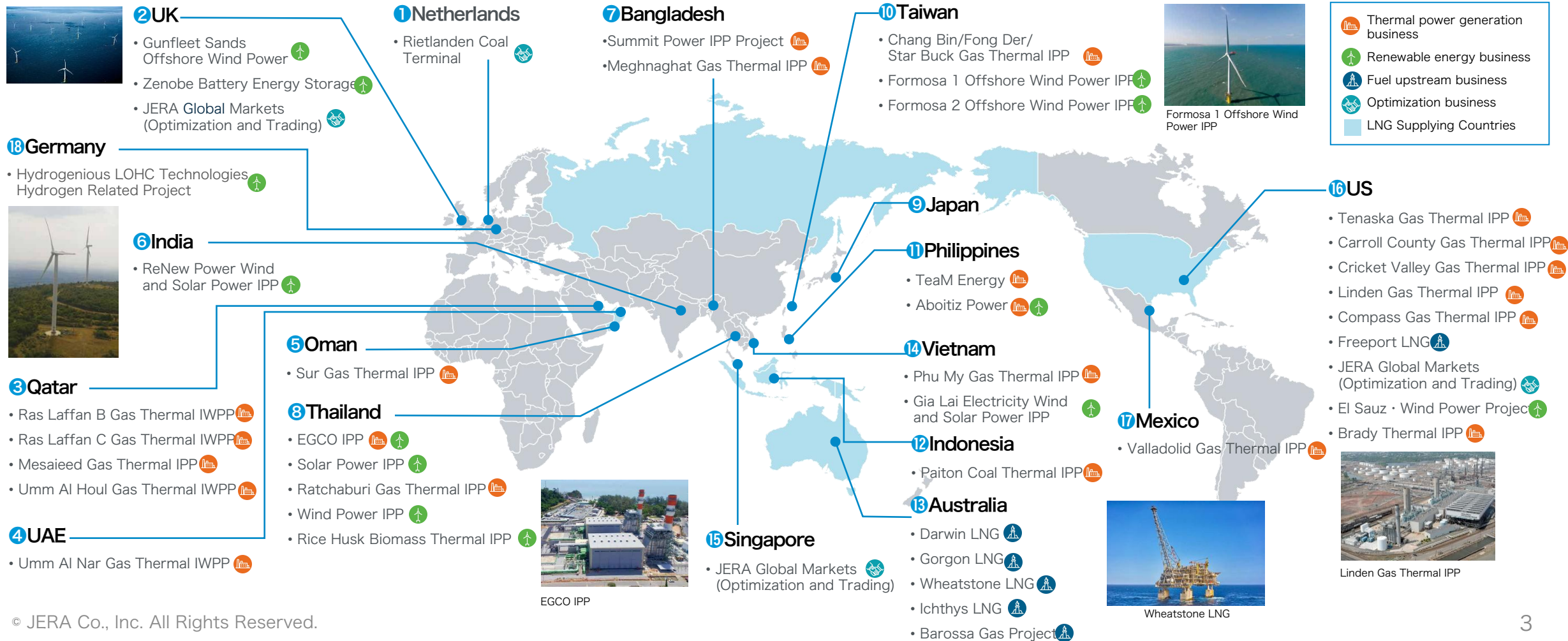
1. FY2022
2. Represents the number of countries that imported LNG to LNG receiving terminals of JERA.
3. Includes jointly operated terminals in Chita and Yokkaichi area.
4. Includes capacity under construction. Excludes joint thermal power in Japan. FY2021
5. Voluntarily adopted International Financial Reporting Standards (IFRS)



*Upstream Development
Photo: Chevron Australia

Overseas Businesses (As of October 31, 2022)

- From fuel sourcing to power generation, JERA holds assets in countries across the world.
- We aim to increase our renewable energy assets from the current 1.2GW to 5GW by 2025.



Taking Energy into a New Era

- JERA's mission and vision highlight our commitment to solving the world's energy issues.
- We announced "JERA Zero CO₂ Emissions 2050" in October 2020 as a long-term initiative to realize our mission and vision

Mission

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

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

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

To achieve decarbonization over the middle and long term while securing a stable electricity supply, JERA will, in addition to strengthening operations of the thermal power generation business it has cultivated over the years, establish a clean energy supply platform that utilizes digital technology to combine renewable energy and low greenhouse gas thermal power. By providing Asia and the world with a platform that achieves both supply stability and decarbonization, JERA aims to contribute to the sound growth and development of the world and maximize its corporate value.





Our Decarbonization Strategy

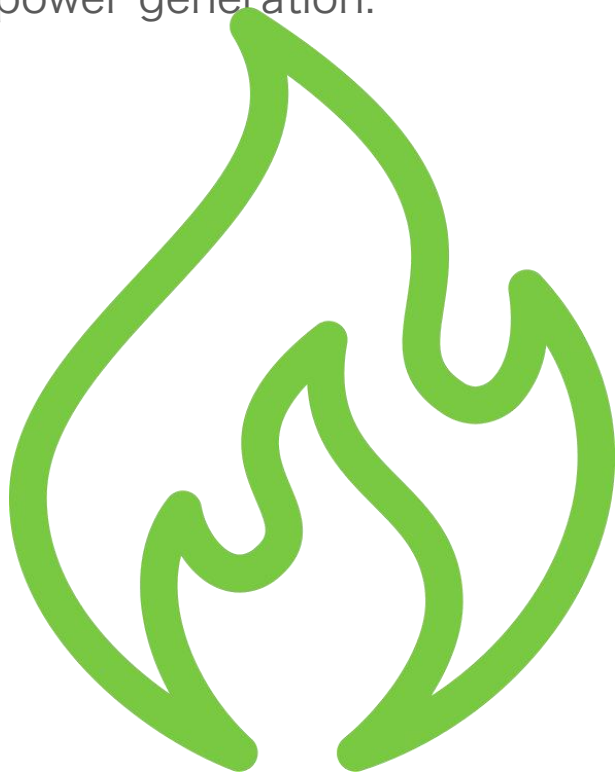
JERA Zero CO₂ Emissions 2050



JERA Zero CO₂ Emissions 2050



- JERA is dedicated to driving development around offshore wind power. The adoption of renewable energy will be complemented by thermal power generation capable of generating electricity in any natural condition.
- JERA will promote the adoption of greener fuels and pursue thermal power that does not emit CO₂ during power generation.



Creating a Carbon-Free Flame

JERA is taking on the challenge of achieving Net Zero CO₂ Emissions 2050, with Renewable Energy × Zero CO₂ Emissions Thermal.

Our ideas defy common-sense power generation.



The challenge of achieving zero CO₂ emissions from domestic and overseas operations

- JERA's mission is to provide cutting-edge solutions to the world's energy issues. To contribute to the realization of a sustainable society, JERA will take on the challenge of achieving, by 2050, virtually zero CO₂ emissions from JERA's operations in Japan and overseas.¹

The Three Approaches of JERA Zero CO₂ Emissions 2050

1

Complementarity between
Renewable
Energy and Zero CO₂ Emission
Thermal Power Generation



2

Establishment of Roadmaps
Suitable for Each Country and
Region



3

Adoption of "Smart Transition"

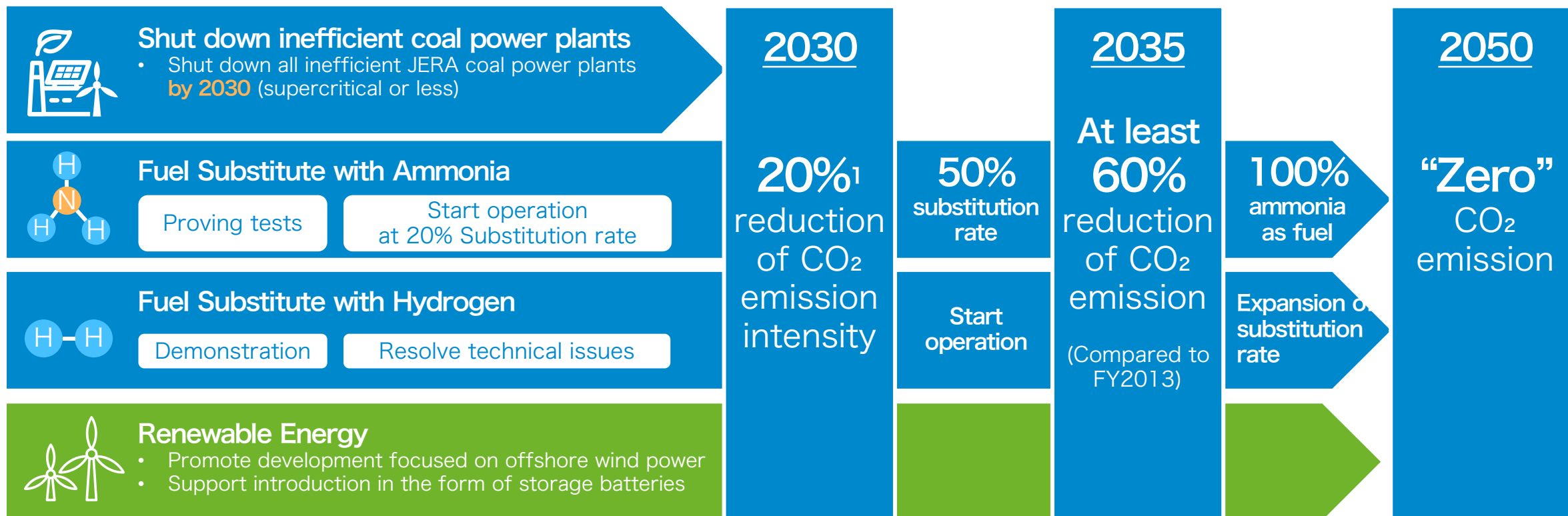


¹ JERA Zero CO₂ Emissions 2050 is premised on the continual development of decarbonization technology, economic rationality, and consistency with government policy. JERA is continuing to develop original decarbonization technologies and is taking the initiative to ensure economic rationality.

JERA Zero CO₂ Emissions 2050 Roadmap for its Business in Japan

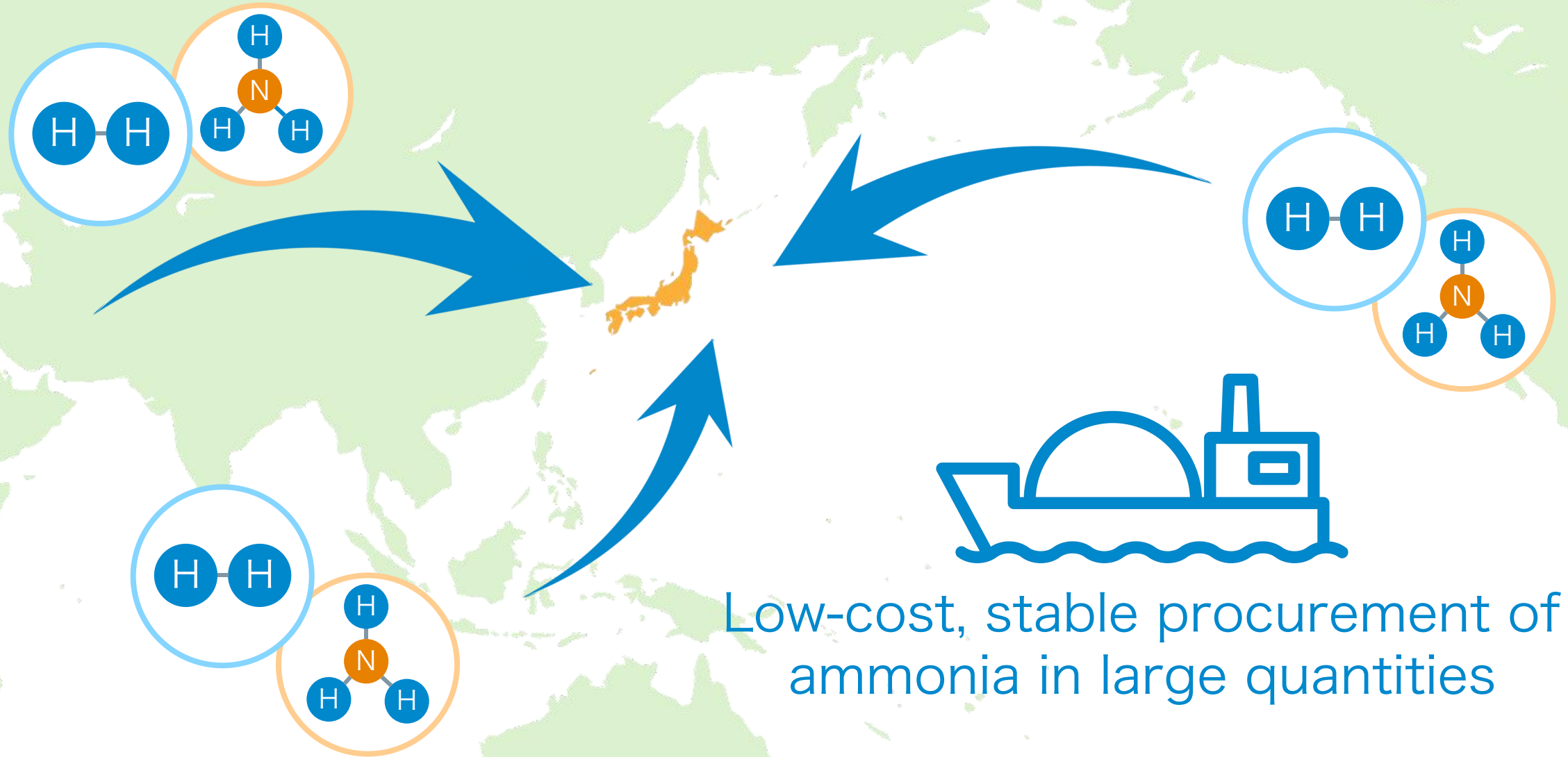


- We have established the “JERA Zero CO₂ Emissions 2050 Roadmap for its Business in Japan,” which comprises four initiatives.
- Energy situations vary by country and region, and include issues like the presence of regional transmission lines or pipelines. JERA works with stakeholders on a country and regional basis to establish viable roadmaps.



¹ Reduce carbon emission intensity of thermal power plants by 20% based on the long-term energy supply-demand outlook for FY 2030 as set by the government

Procurement of Ammonia/Hydrogen



Offshore Wind Power Development



Technology and experience
in large-scale thermal power generation



Experience
in offshore wind power generation



Promoting large-scale offshore wind power generation in Japan

Supporting the Expansion of Renewable Energy Using Storage Batteries



- We are promoting the use of storage batteries, cost reduction, and the acquisition of operational know-how in order to maximize the use of renewable energy.

Greater use of
renewable energy by
promoting storage
battery usage

Installation of information
services that make
effective use of storage
batteries

Reduction of battery
costs and effective use
of resources

Reuse and Recycling of
Used EV Batteries in
Cooperation with Toyota
Motor Corporation

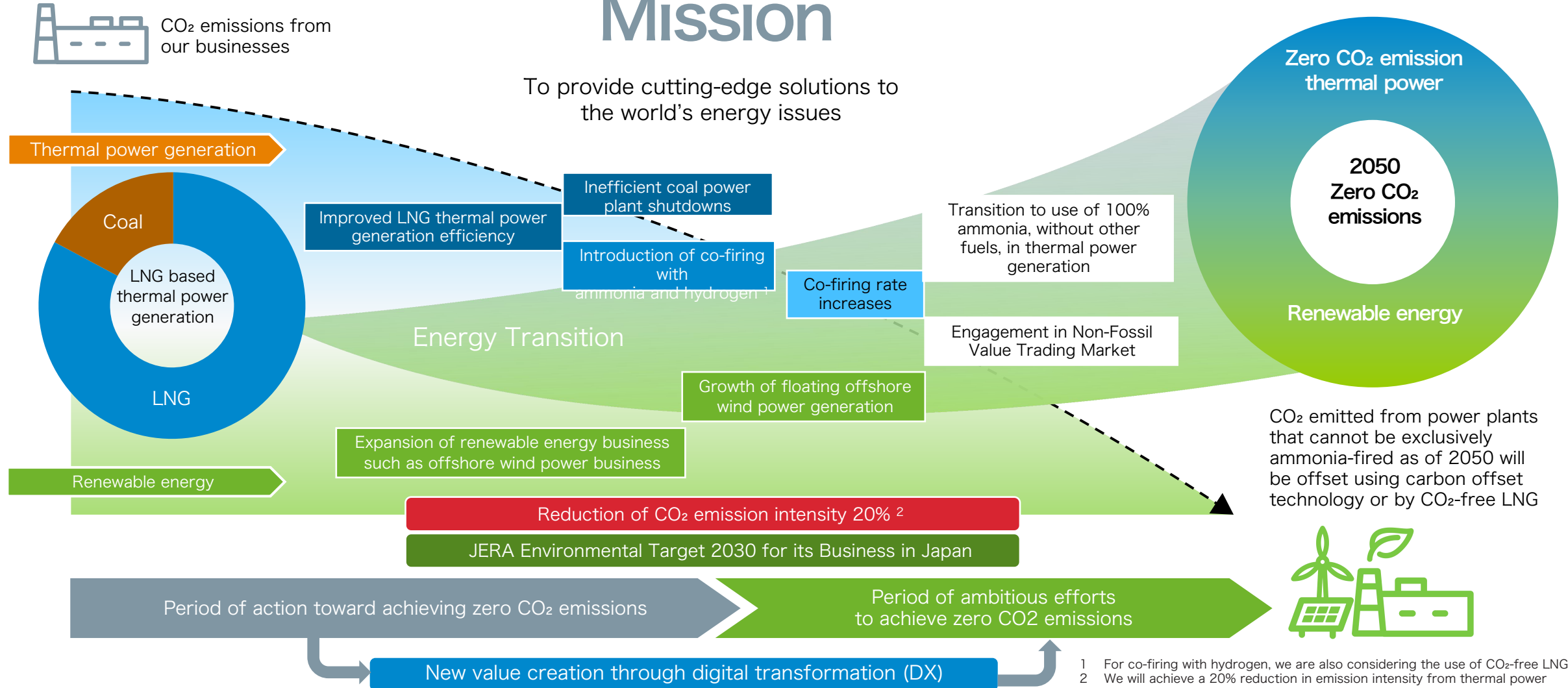
Acquisition of
operational know-how
in developed countries

Participation in Europe's
Largest Battery Storage
Business via UK's Zenobe
Energy

Value Creation Process (Decarbonization Strategy)

Mission

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



¹ For co-firing with hydrogen, we are also considering the use of CO₂-free LNG.
² We will achieve a 20% reduction in emission intensity from thermal power generation compared to Japan as a whole, based on the government's long-term energy demand forecast for FY2030.



Digital Transformation

JERA's Vision for the Future
of the Digital Power Plant

Jera
Energy for a New Era





Becoming a Data-Driven Company through DX that Realizes JERA's Growth Strategy

JERA aims to be a Japan-based global energy company. Having inherited the human resources and systems of Tokyo Electric Power and Chubu Electric Power, we are in the process of blazing a new trail with our innovative approach.

Information and Communications Technology (ICT) departments are in charge of our entire growth-based DX, from strategy to implementation, and we are promoting a transformation that incorporates cutting-edge technologies.

People are at the core of our transformation. We provide professional development under the slogan “We Decide, We Control, We Create,” where we place importance on the diversity of every one of our employees and their ability to make independent decisions and take action. We are also working as One Team to create a new business platform through digital transformation.

Senior Managing Executive Officer
Global CIDO

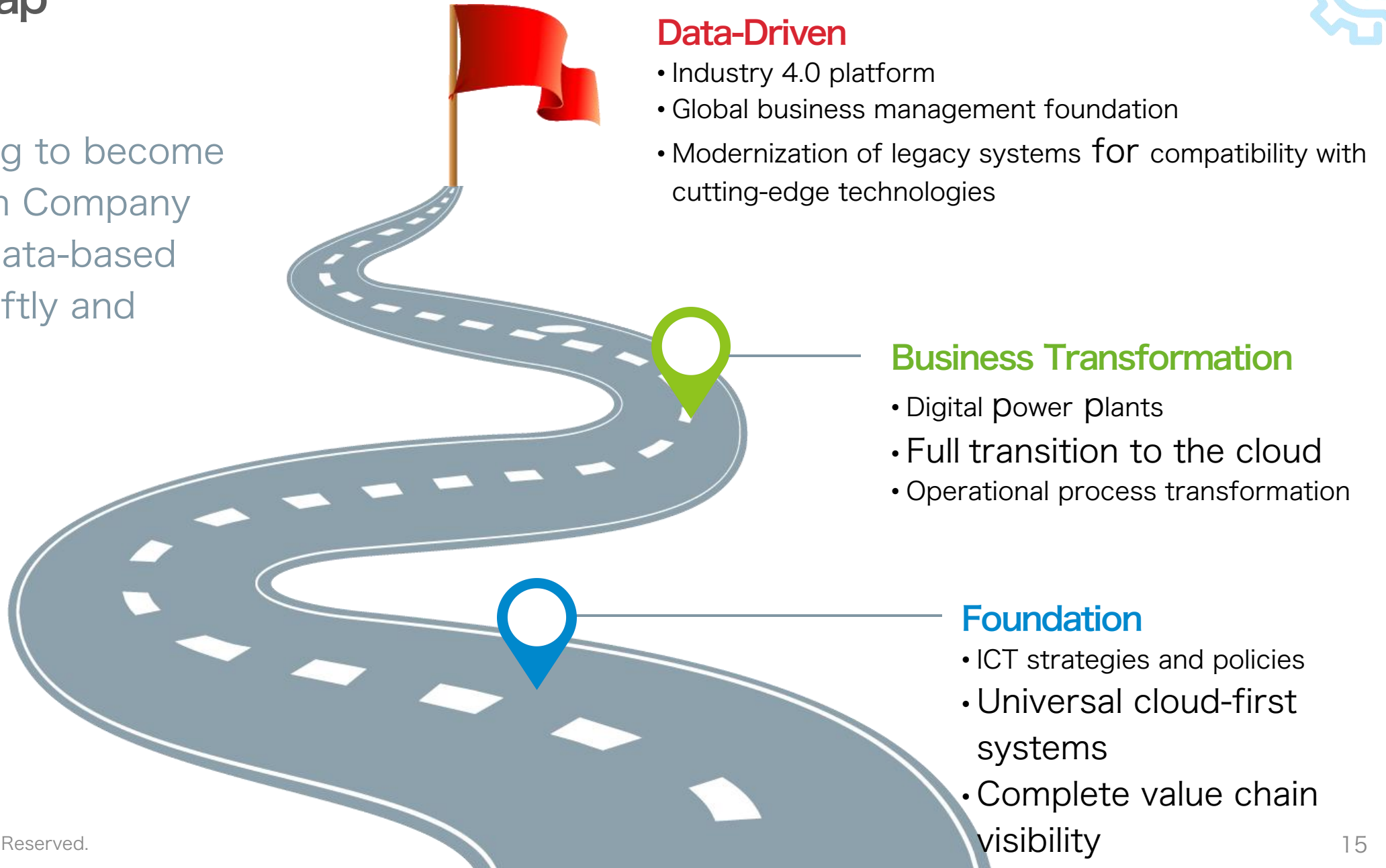
(Global Chief Information and Digital Officer)

Sami Ben Jamaa



DX Roadmap

We are aiming to become a Data-Driven Company that makes data-based decisions swiftly and accurately.





JERA's Vision for the Future of the Digital Power Plant

- Package “plant equipment and people work,” including user-oriented technology such as *kaizen* (standardization and digitization)
- Build mechanisms to generate value by implementing advanced O&M in applications using data and AI.

AI & On-site Capabilities

Operation

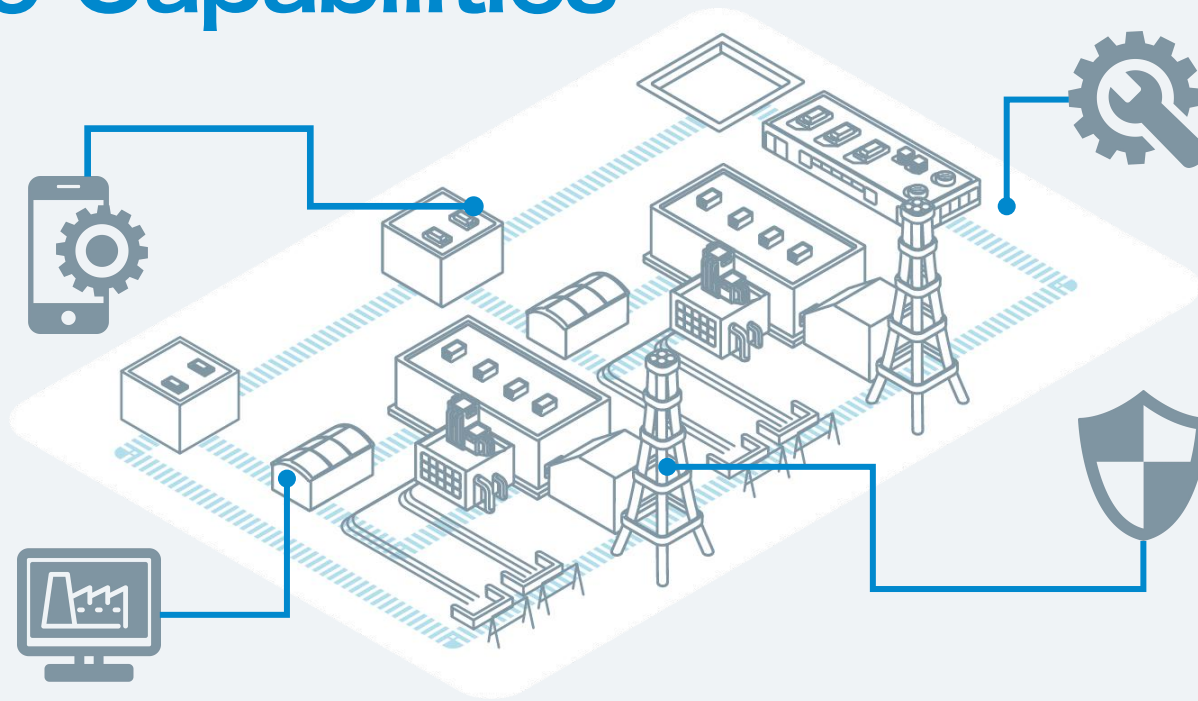
Real-time management not only of operational control values but also of adjustment capabilities and operational indicators like availability.

Lifecycle optimization support with data-based know-how and predictive maintenance applications.

Performance Management

Real-time management of indicators for thermal efficiency and auxiliary power, as well as each factor of deterioration

Optimum operating conditions and parameters calculated using a digital twin.



Maintenance

Real-time management of maintenance indicators such as actual planning and progress work, trouble and maintenance costs, and the reliability of each facility

Lifecycle optimization support with data-based know-how and predictive maintenance applications

Health/Safety/Security/Environment

Real-time management of indicators such as values for environmental emissions and the number of accidents and disasters

Disaster and accident response support through the creation of systems and applications

Digital Power Plant



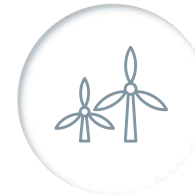
JERA Innovation Lab

- ✓ Acceleration of development and deployment
- ✓ Speeding up verification of new business value
- ✓ Utilization of AI

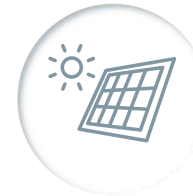


Challenge to the Future

Creation of business platform to realize decarbonization



Wind



Solar



Thermal

Tracability of environmental Value

VPP

Creation of kW/ Δ kW
value

Microgrid

Resilience/
Local production for
local consumption

IoT

Security/Interoperability