

# New Corporate Vision and Environmental Targets for 2035

JERA Co., Inc.

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# **New Corporate Vision for 2035**

#### **Mission**

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

### New Corporate Vision for 2035 (Newly established)

再生可能エネルギーと低炭素火力を組み合わせたクリーンエネルギー供給基盤を 提供することにより、アジアを中心とした世界の健全な成長と発展に貢献する To scale up its clean energy platform of renewables and low greenhouse gas thermal power, sparking sustainable development in Asia and around the world

#### Reference: Corporate Vision for 2025 (Established in April 2019)

Global leader in LNG and renewables,

sparking the transition to a clean energy economy

# JERA Initiatives Looking Toward 2035



# Securing Human Resources to Achieve the New Corporate Vision for 2035

#### Efforts to secure human resources (recruitment and development)



# JERA Environmental Target 2035



## JERA Environmental Target 2035 for its Business in Japan

JERA aims to reduce CO<sub>2</sub> emissions from domestic operations by at least 60% (relative to FY 2013) by FY 2035 through the following:

- Given the expanded adoption of renewable energy based on the national government's 2050 carbon neutral policy, JERA will strive to develop and adopt renewable energy in Japan.
- JERA will work to reduce carbon emission intensity from thermal power generation by promoting hydrogen and ammonia co-firing.

"JERA Environmental Target 2035" is premised on consistency with policy and on the business environment under which it will be realized.

# "JERA Zero CO<sub>2</sub> Emissions 2050 Roadmap for its Business in Japan" and "JERA Environmental Targets for its Business in Japan"

#### JERA Zero CO<sub>2</sub> Emissions 2050 Roadmap for its Business in Japan (Updated in May 2022) Bv 2030 Bv 2040 Bv 2050 **Action Period Leading to Achievement Challenge Period Leading to Achievement** CO<sub>2</sub> $CO_2$ Emissions Emissions By 2030 Bv 2035 ZERO of at least Intensity Thermal Power Shut down all of Reduce carbon emission intensity of $CO_2$ ▲60 thermal power plants by 20% based ▲20% JERA's inefficient Emissions on the long-term energy supply-(supercritical or less) demand outlook for FY 2030 as set Virtually zero CO2 emissions coal power plants from JERA's operations in Japan by the aovernment Generation with Nia 20305 2040s Co-Firing w Ammonia Emissions Start operation at 20% **Demonstration** in an Start Operation at 50% Expansion of Shift to thermal actual coal power plant co-firing rate co-firing rate power plants (Hekinan Thermal Power Detailed decision based on the using 100% Station) results of the demonstration ammonia as fuel through power plant replacement o-Firing with Hydrogen\* Resolving Technical Issues (Selection of Hydrogen Car Zero 2030s Select the most technically and economically suitable Demonstration Expansion of hydrogen carrier from among ammonia, liquified Start Operation Verify stable hydrogen, methylcyclohexane (MCH), etc. operation of actual b power plant By 2050, CO<sub>2</sub> emitted from power plants using fossil fuels is Renewable Promote development centered on offshore wind power projects offset using offset technology or Enerav Support adoption using storage batteries by CO<sub>2</sub>-free LNG This roadmap will be gradually developed in greater detail based on relevant conditions such as government policies. JERA will revise the roadmap when relevant conditions change significantly.

This roadmap will be gradually developed in greater detail based on relevant conditions such as government policies. JERA will revise the road \*The use of CO<sub>2</sub>-free LNG is also being considered.

#### JERA Environmental Target 2030

JERA is actively working to reduce  $\rm CO_2$  emissions. In its domestic operations, JERA will achieve the following by FY2030:

- Shut down all inefficient (supercritical or less) coal power plants and conduct demonstration tests of mixed combustion with ammonia at high-efficiency (ultrasupercritical) 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 FY 2030 as set by the government.

#### JERA Environmental Target 2035

JERA aims to reduce  $CO_2$  emissions from domestic operations by at least 60% (relative to FY 2013) by FY 2035 through the following:

- Given the expanded adoption of renewable energy based on the national government's 2050 carbon neutral policy, JERA will strive to develop and adopt renewable energy in Japan.
- > JERA will work to reduce carbon emission intensity from thermal power generation by promoting hydrogen and ammonia co-firing.

JERA Zero CO\_2 Emissions 2050 Roadmap and JERA Environmental Targets are premised on steady advances in decarbonization technology, economic rationality, consistency with policy, and the business environment under which they will be realized.

# **Specific Initiatives for Decarbonization**

To achieve the JERA Environmental Targets, JERA aims to develop decarbonization technologies in the following timeline:

- A demonstration test with an ammonia co-firing rate of 20% will start at Hekinan Thermal Power Station Unit 4 by FY2024, and another demonstration test with a co-firing rate of at least 50% will be conducted at Hekinan Thermal Power Station Unit 5 by FY2028. JERA aims for commercial operation at the same co-firing rate.
- A demonstration test of with a hydrogen co-firing rate of 30% (by volume) using JERA's gas turbine combustor will be conducted by FY2025 with the aim of commercial operation in the mid 2030s.

