CHUBU
Electric Power

<Briefing Materials for Investors>

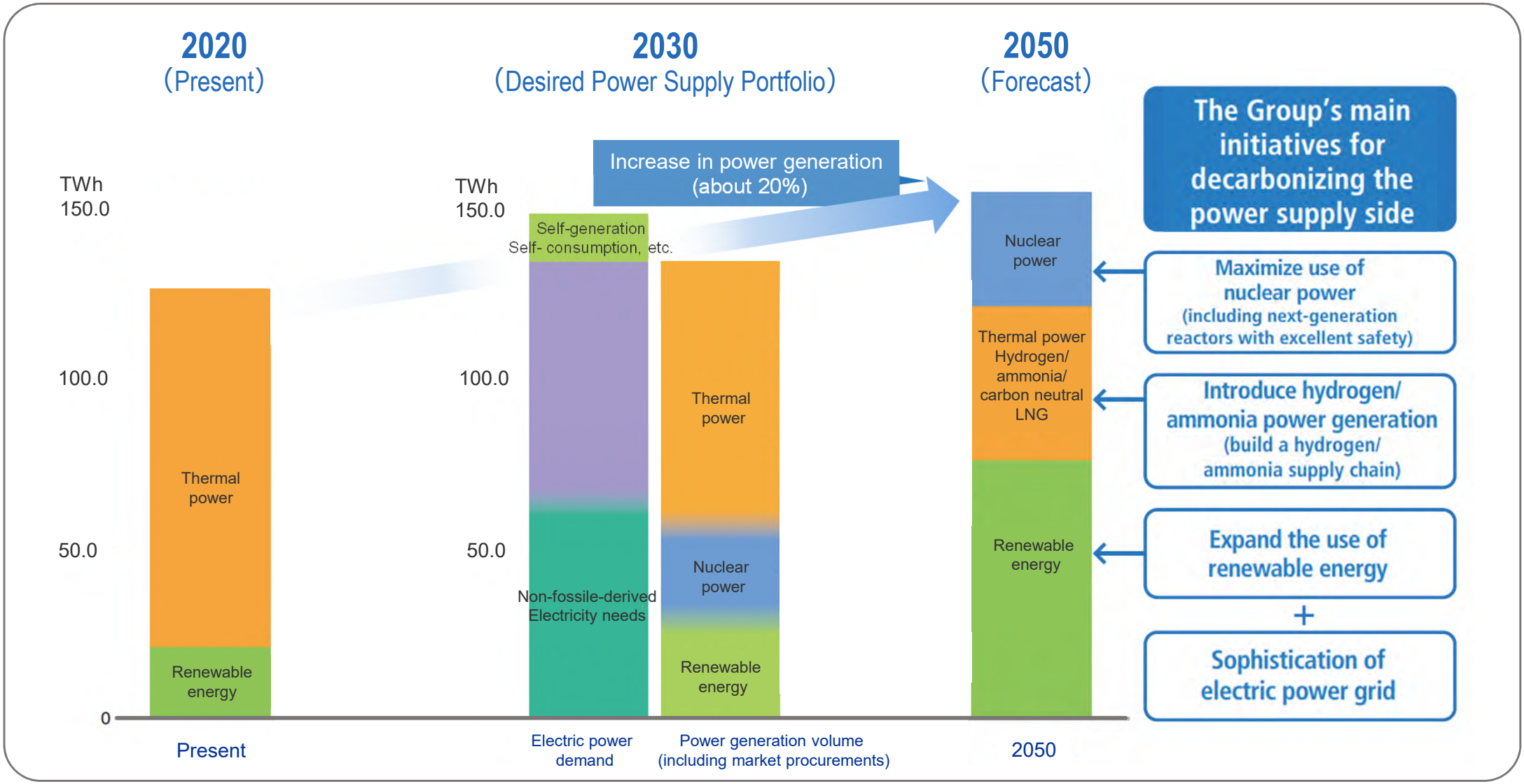
Our Initiatives for Decarbonization

This material is a summary of our efforts toward decarbonization in response to the interest of capital markets.

As of May 31, 2023

Future Power Supply Portfolio (Chubu Region)

*Excerpt from Chubu Electric Power Group Management Vision 2.0
(announced in November 24, 2021) (See page12, 16)



(NOTE)The above power supply structure is based on our assumptions of the country at the time of formulation, and may be revised in the future.

01 Initiatives for decarbonization

The Chubu Electric Power Group has set as its target the Zero Emissions Challenge 2050, which aims to attain net zero CO_2 emissions for our entire business by 2050, and has taken all measures in cooperation with our clients and communities. In order to achieve this mission, we believe it is important to proceed with the transition(transition to a carbon-free society) methodically, while ensuring a stable supply of energy through the expansion of renewable energies, maximum use of nuclear power,and transition toward zero-emission thermal power generation, carefully observing the development of new technologies for use of hydrogen and ammonia.
Employing these initiatives, we will also achieve "S +3E " * , whereby we will improve corporate value.

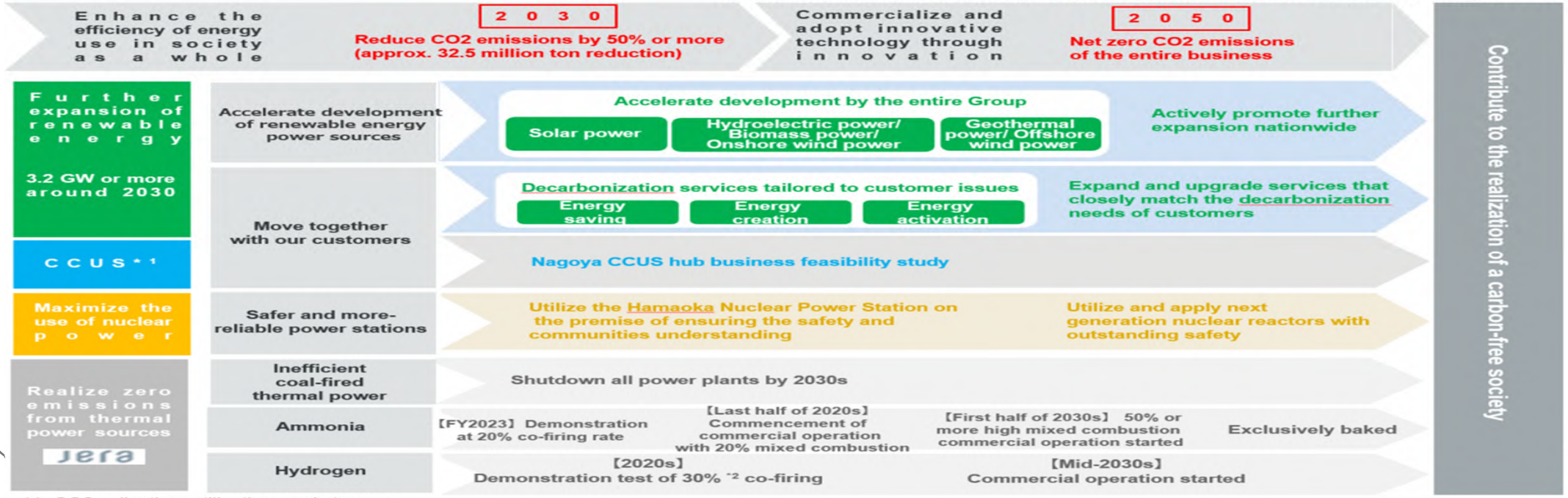
*S+3E: S (Safety) +3E (Energy security, Economic efficiency, and Environment)

Specifically, based on "Chubu Electric Power Group Management Vision 2.0", "Zero Emissions Challenge 2050", and "JERA Zero CO_2 Emissions 2050", we are working to expand renewable energy and maximize the use of nuclear power, and to pursue zero emissions power sources, including the construction of hydrogen and ammonia supply chains. At the same time, we are aiming to realize a decarbonized society through the electrification and decarbonization of energy use, which is being pursued in concert with society and customers. The Company will also participate in the national "GX League" and steadily advance initiatives to reduce CO_2 emissions.

In the renewable energy business in particular, in order to achieve the goal of "contributing to the expansion of 3.2 million kW (8 billion kWh) or more of renewable energy through possession, construction, and maintenance by around 2030," we will actively promote the development and expansion of ownership of solar power generation in the short-term, and hydropower, biomass, and onshore wind power in the medium-term, and offshore wind and geothermal power in the long-term and throughout Japan.
(Strategic investment of about 400 billion yen by 2030, mainly renewable energy business)

In addition, we contribute to the enlargement of renewable energy sources by increasing transmission and distribution facilities to expand power interchange with other areas.

Reference:CO2 emissions from sales of electrical power FY2021 results: 41.58 million t-CO2



*1 CO2 collecting, utilization, and storage
*2 volume ratio

02 Valuation of Thermal Power Generation Assets

Policy on Thermal Power Generation (LNG and Coal)

Chubu has been actively involved in the formulation of the “Basic Policy for Realizing GX” formulated by GX Implementation Council and the “Pro-Growth Carbon Pricing Initiative" therein.

The policy outlines the idea of a transition toward carbon neutrality that achieves both stable supplies of energy and reductions in CO_2 emissions from thermal power generation, such as long-term decarbonization power auctions and support for promoting the introduction of ammonia-hydrogen.

Thermal power generation is evaluated to be an asset which provides necessary roles and sufficient value in the process of transition toward carbon neutral by equipping power supply and demand adjustment function for power demand which fluctuates from moment to moment and output of renewable energy power source, and power system stabilization function by inertia force and synchronization force.

While JERA owns thermal power generation properties and operates power generation business, we are involved in JERA's efforts to achieve zero emissions of thermal power generation in order to properly proceed with the above transitions. We are also working together to advance initiatives as indispensable to the achievement of our targets for decarbonization.

<Reference> Our Targets

Our goal is to reduce CO_2 emissions from electricity sold to customers by 50% or more from FY2013 by 2030, while we have set the zero emissions challenge of 2050, which aims to achieve net-zero emissions for the entire business by 2050.

In setting these targets, we recognizes the importance of implementing initiatives to achieve “2050 carbon neutral” from the perspective of “S+3E”* in Japan‘s electricity supply, as outlined in the country’s “6th Strategic Energy Plan”, while maintaining a balance between stability and economic efficiency. Based on this recognition, we has also set the targets consistent with Japan's NDC as a path to 2050 and the ideal image envisioned in the Strategic Energy Plan.

IEA “NZE by 2050” is recognized as one of several analytical models-not the only route to net zero-emissions, and is evaluated based on this understanding in our management planning, etc. In response to TCFD, we conducted scenario analyses by referring to the “6th Strategic Energy Plan”, etc. from time to time in addition to the relevant scenarios.

*S+3E: S (Safety) +3E (Energy security, Economic efficiency, and Environment)

03 Our Approach to Disclosure

Our efforts to enhance Disclosure for quantitative information ～ Enhance Disclosure through engagements (TCFD)

Through engagement with capital markets, we are aware of requests for disclosure from capital markets, and we have been implementing ongoing measures.

Chubu endorsed TCFD in 2019 and has disclosed since 2020. Recognizing the opinions of capital markets regarding TCFD requirements, we are also confirming the trends in public disclosure (including advanced cases), and are proceeding with disclosure, and we are responding as far as we can to the disclosure of the "financial impact (resilience of thermal power plants, etc.)" required by TCFD.

In addition, the “6th Strategic Energy Plan” stipulates that ″we will pursue all options (nuclear power, renewable energy, thermal power, etc.) so that we can achieve carbon neutrality by 2050 while maintaining international competitiveness and curbing the burden on the people by providing a stable and inexpensive energy supply.″ Based on the recognition that we need to address all options in a scenario, we will proceed with transitions based on institutional trends, technological advancements, and further, economic evaluations based on these trends.

Disclosures are made by combining qualitative classifications based on "large, medium, and small," taking into account the unclear elements at the present time. (Recognizing the risk of limiting business activities by narrowing the scope and options of business execution by disclosing quantitative and specific information in an uncertain environment)

Through engagements with the capital markets, we recognizes the importance and necessity of quantitative and specific information disclosure, and are gradually increasing the amount of disclosure.

(For details, please refer to the following page. (Also included in the “NOTICE OF THE 99th ORDINARY GENERAL MEETING OF SHAREHOLDERS”))

Future Actions (Proactively enhance disclosure through engagement with capital markets)

Through ongoing dialogue with the capital markets, we will continue to take full account of market needs, and will endeavor to further enhance disclosure by, for example, disclosing information in a timely and appropriate manner as much as possible based on the current situation and the latest information in accordance with the transitioning stage of decarbonization.

Specifically, we will participate in the national "GX League" and set targets consistent with the international commitments of the national government, while annually disclosing progress toward those targets. Further quantification of the "effects and financial impact of each measure" will also be aimed at further enhancement in response to strong capital market demands.

Also, with regard to the ″linkage between executive compensation and ESG indicators,″ ″setting of KPI and short-term targets,″ and ″roadmap toward 2050,″ for which there are many requests for implementation, we will proceed with responses while taking into account the progress of various measures, institutional designs, and advances in technological developments, as we embody the roadmaps that we should move forward in the future.

<Reference> Progress in Disclosure (TCFD,etc.)

The Company endorsed the TCFD in 2019, and the Company has gradually expanded disclosure as appropriate.
(Below please find new disclosure items for each fiscal year.)

Item	Details disclosed in fiscal 2022	Details of Disclosure Scheduled for fiscal 2023
Governance Risk	–	●Status of deliberations on climate change in each committee (see the table below)
Strategy	●Selection of scenarios that conforms to the targets of the Paris Agreement (1.5℃ scenarios, etc.) ●Quantification of the mid-term financial impact (amount of investment and profit contribution in the decarbonisation domain, reduction of fuel costs by reactivation of Hamaoka Nuclear Power Station) ●Qualitative assessment of resilience of thermal power assets	●KPI and progress of major measures for decarbonization ●Quantification of short-to-mid-term financial impact (Impact of reducing CO_2, etc.) ●Definitization of financial impact amount and time base ① Quantification of "large", "mid", and "small" amounts, ② deadlines for short-term, mid-term, and long-term plans ●Implementation of "Analysis of Resilience of Thermal Power Generation Assets" (amount and ratio) (book value of thermal power generation (Ratio of capacity of inefficient coal-fired facilities), CO_2 cost, etc.)
Indicators Goal	●Quantification of contributions to reducing CO_2 (Reactivation of Hamaoka Nuclear Power Station and review of procurement from inefficient coal power)	●※Quantification of CO_2 savings (mixed combustion of ammonia) ●Setting targets for participation in GX League (short-to-mid-term targets) ●Refinements in internal carbon pricing (classifying pricing into short term and mid-to-long term) ●Amount of investment in the decarbonization business and profits therefrom, and investments in R&D
Other	●Third-party certification (Subject of certification: CO_2 emissions in fiscal 2021)	●※Addition of "environmental skills" in the skill matrix

※Already disclosed in the Notice of the 99th Ordinary General Meeting of Shareholders

<Reference> Status of Discussions at Management Meetings

Major Subjects concerning Climate Change Discussed at the Board of Directors' Meeting
and Zero Emissions Committee and the Number of Times of Meetings about such Subjects (July 2022 to May 2023)

The Board of Directors: Seven meetings **(including the Board of Directors' opinion exchange meetings)** (NOTE) on a regular basis opinions are exchanged among all Directors and all Corporate Auditors	●Outline of short-to-mid-term targets and roadmap for decarbonization ● Outline of Chubu Electric Power Group Report (Integrated Report) (disclosure policy for decarbonization) (Major discussions) Refinement of the roadmap toward the implementation of the "Zero Emissions Challenge 2050," further quantification and concretization of disclosures with respect to decarbonization. ●Result of discussions with capital-markets (requests for specific information related to climate change, refection of ESG indicators in executive's remunerations, and enhancement of disclosure of the factors used for the determination of executive's remunerations, etc.)
Zero Emissions Committee: twice	●Measures to use ammonia and hydrogen ●Measures to expand renewable energy business

<Reference> JERA's Approach ~ Part 1 ~

1. Consistency between "JERA's commitment to decarbonization" and the Paris Agreement (1.5°C scenario)

■ Setting targets in line with the Paris Agreement

As shown in the "6th Strategic Energy Plan", the Japanese electric power supply should be based on "S+3E"*, and we recognize the importance of implementing initiatives for decarbonization while balancing the "stability/economics/environmental efficiency". In Japan, which is scarce of energy resources and has no international grid connection, we recognize that it is the best way to use not only renewable energy but also zero-emission thermal power for decarbonization in 2050.

While committed to targets consistent with Japan's Nationally Determined Contribution (NDC) and Strategic Energy Plan as a path to 2050 Carbon Neutral, JERA is working flexibly and agilely to materialize its business plan, in addition to utilizing the support system during the transition process. Specifically, JERA sets the goal of achieving 2050 carbon neutral emissions, and the target of CO_2 emissions intensity set in "JERA Environmental Target 2030 for its Business in Japan" shows the possibility of further reduction toward the long-term energy supply and demand outlook (electric energy mix), which is the attainment of Japan's GHG emission reduction target (NDC). Therefore JERA's target is consistent with Japan's reduction target for achieving the target set by the Paris Agreement.

*S+3E: S (Safety) +3E (Energy security, Economic efficiency, and Environment)

2. Necessity of Initiatives for the Fossil Fuels Business

■ Policy on Thermal Power Generation (LNG and Coal)

In Japan, which is scarce of energy resources and has no international grid connection, it is important to proceed simultaneously with stable power supply and decarbonization so as to be able to cope with the sudden disruption of energy supply.

Under the "6th Strategic Energy Plan". thermal power generation is also positioned from the viewpoint of the maximum introduction of renewable energy toward decarbonization such as solar and wind power generation, which is vulnerable to natural conditions, as well as the essential power source with adjusting power to keep supply and demand balance and inertia force for system frequency retention.

JERA will promote decarbonization while maintaining a stable supply of electricity by converting fuels into carbon-free hydrogen and ammonia (energy transition) and ultimately realizing Single-Fuel Combustion of hydrogen and ammonia, rather than divesting and wasting thermal power generation as this required power source to customers.

JERA plans to decommission inefficient coal-fired power generation (below supercritical pressure) by 2030.

<Reference> JERA's Approach ~ Part 2 ~

Policy for JERA's Initiatives in Asia

JERA aims to contribute to the solution of global energy problems by providing the supply model of clean energy constructed in Japan, to countries/regions facing similar energy problems. Especially in Asian countries in the process of growth, and decarbonization in order not only to support economic growth, but also to create the rich foundation for the people who live there.

We believe that the three approaches listed in "JERA Zero CO2 Emissions 2050" can provide ~~a~~ road maps for decarbonization tailored to the circumstances of Asian countries and regions. JERA will support concrete efforts toward the introduction of renewable energy, the use of LNG, and the achievement of zero-emission thermal power generation by collaborating with local leading companies.

Policy on Ammonia and Hydrogen

As for Ammonia, in FY2023, the Hekinan Thermal Power Station Unit No. 4 will be the world's first demonstration test using a large-scale commercial fuel burner with a co-firing rate of 20%, and by FY2028, the Hekinan Thermal Power Station Unit No. 5 is planned to carry out a high co-firing rate of 50% or more, with the aim of achieving commercial operation at that co-firing rate.

In addition, leveraging the strengths that JERA has participated in the entire value chain, from upstream fuel development to transportation, storage, and power generation and sales, JERA will participate in the construction of an entire supply chain for green fuels. JERA also considers expanding its business domains with a view to selling green fuels to other uses (such as transportation fuels) as well as for electricity,and so on. For ammonia, JERA has already bid internationally to select partners and is considering joint development of procurement and manufacturing businesses. It also aims to build an active partnership with potential buyers to encourage future market growth.

As for Hydrogen, the specifications and equipment arrangement of hydrogen supply facilities of 30% (volume ratio) co-firing utilizing the Green Innovation Fund are examined. Demonstration tests will be conducted in the 2020s, and commercial operation is planned to start in the 2030s.

JERA is also focusing on developing renewable energy, and aims to achieve both stable supplies and decarbonization by mutual complement with renewable energy and zero-emission thermal power fueled by ammonia and hydrogen. Renewable energy will also contribute to the production of green ammonia and hydrogen.

<Cost>

JERA is working on the premise of using Blue and Green Ammonia, which is internationally regarded as a low-carbon fuel.

In order to co-fire 20% ammonia, some facilities such as burners and tanks need to be modified, and the procurement of ammonia requires costs.

In order to introduce hydrogen and ammonia domestically, the government is developing various support systems such as long-term decarbonization power auctions (support for fixed costs for power generation facilities) and commercial supply chain support systems (covering the value difference from conventional fuels). Assuming the use of this support system in the commercialization of zero-emission thermal power, JERA is closely monitoring trends of frameworks.

In the future, smooth independence from the support system and smooth transition from fossil fuels are expected by realizing the zero emission value by 'carbon pricing' whose introduction has begun to be considered.

CO_2 emissions and power generation costs throughout the supply chain will be examined in future demonstration tests.