Strategies by Business Domestic Electricity Business Power Generation & Sales

# Strategies by Business

## Domestic Electricity Business ~Power Generation & Sales~



Using changes in the business environment as an opportunity for greater growth through carbon neutrality

## Masaru Nishiyama

Executive Director, Energy Service Headquarters

The Kyuden Group is robustly moving forward with efforts centered on **Carbon** reduction/decarbonization in power sources and **Promotion of electrification** as movements toward achieving carbon neutrality accelerate both in Japan and overseas.

In March 2023, we were the first major Japanese energy company to obtain Science Based Targets (SBT) certification, confirming that our initiatives are in line with the standards of the Paris Agreement.

Regarding **Carbon reduction/decarbonization in power sources** we will make the greatest use of nuclear power as a price competitive base load power source, which includes positioning renewable energy as a primary power source, with safety as our highest priority and the understanding of local communities as a prerequisite.

In addition, since thermal power is an adjustable power source and necessary for the maximum introduction of renewable energy, we will work to not only reduce CO<sub>2</sub> emissions through high-efficiency operations but also move forward with introducing carbon-free fuels, such as hydrogen and ammonia.

Turning to **Promotion of electrification**, we will expand sales by providing energy services that meet customers' needs and changes in the social environment, including promoting all-electric homes, encouraging the use of EVs, and actively attracting companies using the strengths of our power mix.

We will also take on the challenge of achieving carbon neutrality. As a corporate group that leads the way in decarbonization, the Kyuden Group will not only achieve its 2030 earnings targets but also generate even greater growth through opportunities provided by changes in the business environment.

## Vision for the Future

We aim to achieve our management vision of "providing more prosperous, comfortable living to become our customers' No. 1 choice" and ¥75 billion in ordinary income from the Domestic Electricity Business (50% of the ¥150 billion consolidated ordinary income target for 2030) by providing a stable supply of environmentally-friendly energy and energy services that meet the diverse needs of our customers.

#### FY2030 Management Targets

- · Total electric power sales of 120 billion kWh (incl. overseas)
- $\cdot$  Permanent pursuit of a reasonable price for electricity
- $\cdot$  Reduce supply chain GHG emissions by 60%
- (Reduce by 65% for domestic business (compared to FY2013))  $\cdot$  Contribute to the electrification of Kyushu
- (Household: 70%; Commercial: 60%)

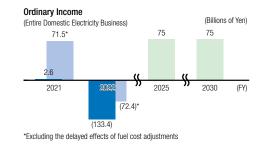
#### FY2025 Forecast

· Total electric power sales of 105 billion kWh (incl. overseas)

### FY2022 Assessment and Progress

 Despite posting an ordinary loss for FY2022 for several reasons, including the impact of a time lag from fuel cost adjustment due to an increase in the cost of fuel and a reduction in the utilization of nuclear power plants, we expect to see a dramatic improvement in profitability for FY2023 due to an increase in nuclear power station utilization and a favorable change in the impact of the time lag from fuel cost adjustment system

Ensured maximum supply capacity through the coordinated operation of our nuclear, thermal, pumped-storage and other power generation facilities, achieving a stable supply of electricity throughout the year, including the summer and winter months when supply and demand is tight



### **Strengths**

#### **Power Generation**

- Top-level ratio of non-fossil fuel power sources among major Japanese power companies (obtained SBT initiative\* certification, the first for a major Japanese energy company)
- · Both a cost competitive and stable supplier thanks to stable nuclear power operations and a well-balanced energy mix

#### Retail

- · Offering rate plans and services that use non-fossil fuel source certificate
- · A customer base built on close ties to the local community with 50 sales offices throughout Kyushu

#### Energy Trading & Supply-Demand Coordination

· Optimized procurement and sales operations in both fuel and electricity markets based on trends in demand for retail and wholesale electricity

\*: (SBT: Science Based Targets)

International joint initiative to verify and certify that greenhouse gas emission reduction targets set by companies are based on science in order to achieve Paris Agreement targets

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### **Business Environment**

#### **Opportunities**

- Increasing expectations from society regarding the importance of stable power supply
- · Advancement of electrification
- Growing customer needs for low carbon intensity or decarbonized electricity due to accelerating global efforts to become carbon neutral
- Increasingly large factories, such as in the semiconductor sector and other fields are locating in the Kyushu region

#### Risks

- Volatility in the fuel, wholesale electricity, and foreign exchange markets
- Increased investment expenditures and costs related to lower carbon intensity and decarbonized power sources
- Decrease in opportunities for thermal power generation due to expanded adoption of renewable energy
- · Unplanned power supply outages
- Changes in regulations related to electric utilities

### **Business Strategies**

By promoting the stable supply of

electricity and the low-carbon or

decarbonization of power sources,

we aim to maximize the value of

electricity itself and to promote

towards achieving our profit

targets.

electrification, ultimately working

#### Stable power supply

Our Domestic Electricity Business has been providing a stable supply of electricity. However, considering recent fuel price hikes and the increasing prices in the wholesale electricity market, the importance of stable supply is further emphasized. We will do our utmost to ensure a stable power supply by taking an agile approach to procuring fuel in response to market movements, maximizing our use of nuclear power and its advantages in terms of energy security, and adjusting our thermal power plant maintenance schedule to ensure adequate supply capacity during periods of heavy load.

#### Promoting carbon neutrality

In response to society's need for decarbonized sources of power, we will strive to make renewable energy a primary power source by promoting its development Group-wide.

Thermal power generation plays an important role as an adjustable power source to maximize the adoption of renewable energy, and as such, we will push for greater efficiency and the use of carbon-free fuels. Alongside these efforts to provide lower carbon intensity and decarbonized sources of power, we will also trade the nonfossil value generated by our non-fossil power sources, promote electrification across all parts of society, engage in face-to-face sales to make the most of our direct contact with customers, and develop proposals for renewable energy rate plans based on the growing need for decarbonized electricity.

## Efforts to Create Corporate Value

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				Main relevant materiality
		1) Maximize short-term opportunities (Increase profit)	<ul> <li>Optimize fuel and electricity procurement and sales operations based on market trends</li> <li>Maintain safe and stable thermal and nuclear power station operations by consistently carrying out daily inspections and periodic self-inspections</li> <li>Develop renewable energy Group-wide to make renewable energy a primary power source</li> <li>Provide rate plans and services that meet the growing needs for decarbonized electricity</li> <li>Promote electrification through the expansion of points of contact with customers and individual proposals to customers in all fields</li> <li>Develop a state-of-the-art low CO<sub>2</sub> emission LNG combined-cycle power station (Hibiki Power Station expected to begin operation in FY2025)</li> </ul>	Leading the Way toward a Decarbonized Society Implementing Continuous Improvements in Energy Services Strengthening Governance
		2) Expand medium to long-term opportunities (Increase growth rate (future growth expectations))	<ul> <li>Collaborate on the development of hydrogen and ammonia supply chains and establish co-firing technology (consider collaboration with Yara International, the world's largest ammonia chemical company)</li> <li>Enter the aggregation business<sup>*</sup> that leverages distributed energy resources, such as massive battery storage</li> <li>*: Business that provides various services, including those necessary for the effective use of renewable energy, by bundling distributed energy resources, such as battery storage and EVs</li> </ul>	Leading the Way toward a Decarbonized Society Implementing Continuous Improvements in Energy Services Strengthening Governance
		3) Reduce risk (Lower the cost of capital)	<ul> <li>Hedge against the risk of market volatility in fuel prices and exchange rates by trading derivatives</li> <li>Use transition finance to achieve carbon neutrality, such as through the introduction of LNG-fired thermal power stations</li> <li>Develop a response to multiple energy mix scenarios, taking into account national energy policies and other factors</li> </ul>	Leading the Way toward a Decarbonized Society Implementing Continuous Improvements in Energy Services Strengthening Governance
Corporate value (economic value) = (1) Maximize short-term opportunities Cost of capital - Growth rate (2) Expand medium to long-term opportunities (3) Reduce risk		0 (3) Reduce		

Strategies by Business Domestic Electricity Business Transmission & Distribution

## Domestic Electricity Business ~Transmission & Distribution~



Toward a rapid and radical organizational transformation through technological capabilities and DX

## Takeshi Hirowatari

President and Chief Executive Officer, Kyushu Electric Power Transmission and Distribution Co., Inc.

Our business environment is undergoing major changes, and thus we must respond to such social problems as achieving carbon neutrality, reinforcing resilience, aging facilities, and introducing a new wheeling fee scheme (revenue cap system) based on these considerations, as well as expand our business domains to generate growth.

At this time of massive changes in the business environment, we newly formulated a Kyushu Electric Power Transmission and Distribution Management Philosophy in April 2023 as a foundation for undertaking autonomous and stable management.

This management philosophy incorporates the desire to expand business activities that emphasize the values of trust, evolution, and co-creation based on the purpose of "delivering power to Kyushu and revitalizing society" while aiming to become "Japan's leading infrastructure company through our technological capabilities and digital transformation."

We recognize the need for a quick launch of a fundamental organizational transformation to achieve the Vision in our management philosophy, and we will promote initiatives that combine our core technological capabilities (disaster recovery capabilities, technical capabilities for network infrastructure construction and maintenance, and technical capabilities related to supply/demand and system operation for greater use of renewable energy) and digital transformation (DX).

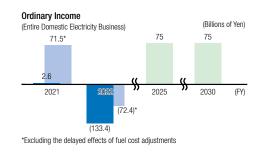
Purpose	Kyushu Electric Power Transmission and Distribution Management Philosophy	
	We will deliver POWEP to Kyushu and revitalizing society With a mission of providing a stable, efficient supply of electricity, we will contribute to customers' prosperity and solutions to social problems	
	Trust	We place the greatest value on the trust of stakeholders
Value	Evolution	We anticipate change and autonomously transform the organization
	Co-creation	We create greater value by leveraging diversity

## FY2022 Assessment and Progress

- The transmission and distribution business accounted for ¥14.1 billion of the Domestic Electricity Business' ordinary income
- Ordinary revenue rose 18.5% over the previous year to ¥711 billion on account of growth in wholesale electricity sales accompanying an increase in purchases from renewable energy sources, growth in imbalance-related revenue, higher unit prices of adjusting subsidies related to the supply-demand adjustment market, and growth in the final guarantee supply

Ordinary expenses increased 17.6% over the previous year to ¥696.9 billion due to an increase in imbalance and final guarantee supply-related expenses and an increase in purchases from renewable energy sources

 Used technologies and other assets cultivated by Kyushu T&D and Group companies to promote such efforts as demand generation activities utilizing all points of contact throughout our work, the creation of new services and businesses, and participation in the Overseas Business to achieve carbon neutrality



### **Strengths**

#### Reliable Operation of Transmission & Distribution Facilities Supporting Kyushu's Power Supply

- Transmission lines: 11,223 km, distribution lines: 144,198 km
- Substations: 653
- $\cdot$  Internal combustion power stations: 29
- · Interconnected renewable energy: 15,820 MW

#### World-class Electricity Quality

- Power outage frequency: 0.15 times/household
- (0.04 times/household: excl. disasters such as typhoons)
- Power outage duration: 115 mins./household
- (3 mins./household: excl. disasters such as typhoons)

Strategies by Business Domestic Electricity Business **Transmission & Distribution** 

### Business Environment

#### **Opportunities**

- Expansion of renewable energy and generation of demand to achieve carbon neutrality
- Introduction of a new wheeling fee scheme to secure capital for investments
- · Advances in Al, IoT, and other digital technologies

#### **Risks**

- Information leaks
- Gradual decline in demand for wheeling services
- · Progressive aging of facilities
- · Increasing severity of natural disasters

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We are making the following efforts to achieve the Vision in the Kyushu Electric Power Transmission and Distribution Management Philosophy.

Efforts to prevent another information leak

Recognizing the seriousness of the loss of society's trust in us as a general transmission and distribution company, we are working to prevent this type of incident from ever occurring again and to regain the trust of society.

• Achieve a balance between stable power supply and lower costs

We will steadily work to balance the provision of a stable power supply, which is our basic mission, with lower costs.

Build a next-generation power transmission and distribution network to achieve carbon neutrality

In order to achieve carbon neutrality, we will move forward with creating a next-generation network to maximize Kyushu's renewable energy potential.

- · Generate demand and increase earnings using our technological capabilities and assets
- We will take on the challenge of generating demand and expanding business domains using the technologies and other assets accumulated by the transmission and distribution business and Group companies. Strengthen our business foundation

We value the trust of our stakeholders above all else, and while autonomously transforming our organization, we will continue to create higher value.

