

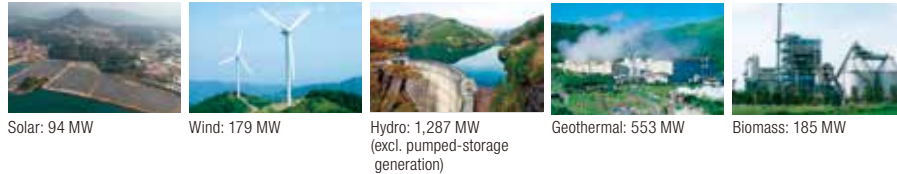
# Growth Businesses: Renewable Energy Businesses

## Business Outline

The Kyuden Group, led by Kyuden Mirai Energy Co., Inc. established in 2014, develops and operates all five main renewable energy sources: solar, wind, hydro, geothermal, and biomass.

The renewable energy business is an area where we can utilize the know-how we have accumulated through our development and operation, and where society has high expectations for us to achieve carbon neutrality. For this reason, we have positioned it as one of our growth businesses and are actively promoting the development of geothermal and hydroelectric power, which are our strengths, as well as offshore wind power, which has great development potential, both in Japan and overseas.

### Development volume of renewable energy (as of March 31, 2020. Includes overseas.)



## How We See the Business Environment

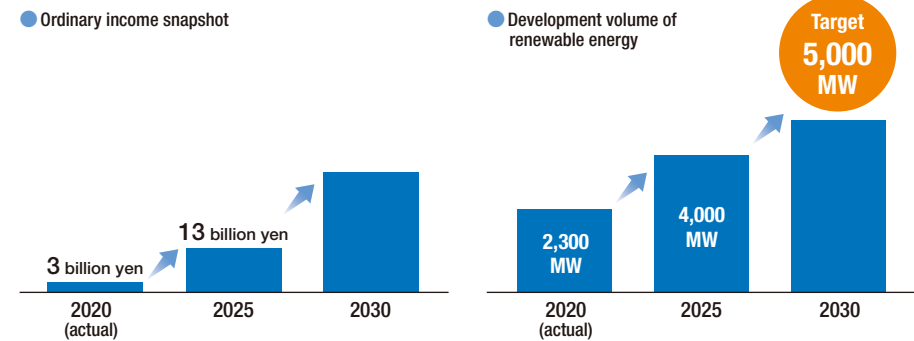
- Growing concern about climate change in the international community as a whole, and rising expectations of renewable energy toward the transition to a low-carbon and non-carbon society
- Development of various systems to support the expansion of the introduction of renewable energies in order to achieve carbon neutrality by 2050 and a 46% reduction in greenhouse gas emissions by 2030 (compared to FY2013).

\*Development of related laws and regulations, dedicated ports, etc. to promote the introduction of offshore wind power, development of rules that allow renewable energy sources to use the power grid on a priority basis, etc.

- Increasing need for technological collaboration and support for low-carbon and non-carbon power sources in Asia and other regions
- Decline in FIT price and introduction of FIP system with variable purchase price (from FY2022)

## Vision for the Future

Utilizing the technologies and know-how of the Kyuden Group, we will steadily promote the development of renewable energies in Japan and overseas to achieve our management target of developing 5,000 MW in FY2030 (4,000 MW in FY2025) and contribute to the realization of carbon neutrality. We also aim to contribute to the achievement of 75 billion yen in ordinary income from growth businesses in FY2030 through increased earnings from renewable energy development.



## Business Strategy

### Promoting the development of promising projects

As Japan is a country founded on maritime ventures and Kyushu has truly great potential for the kind of offshore wind power generation for which the government is encouraging development, we will staunchly promote the development of this on a scale that goes beyond the confines of Kyushu. As geothermal and hydroelectric power generation are capable of stable operation regardless of weather conditions and are areas in which we have a robust track record in development, we will continue to promote their development by leveraging the advanced technological capabilities cultivated thus far by the Kyuden Group.

### New technology initiatives

We will promote the development of tidal power generation, which has potential principally in Kyushu, by utilizing our expertise such as the insights we have gained from the first ever large-scale pilot project in Japan that is currently underway.

### Development of a power supply portfolio based on changes in the environment (system changes)

We will promote development based on an accurate understanding of changes in the business environment surrounding the development of renewable energies, such as the introduction of the FIP system and the implementation of rules for the use of power grids.

## Specific Initiatives

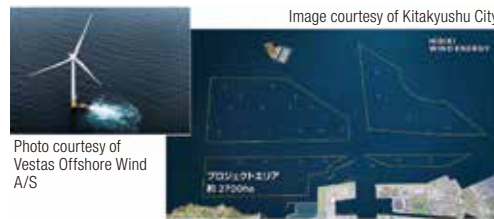
In addition to the development of geothermal and hydroelectric power, which are areas of strength for the Kyuden Group, we are expanding and promoting the use of offshore wind power and biomass as main power sources, as these have great potential for introduction and possibly promise profitability.

### Offshore Wind Power

Since FY2017, a consortium led by Kyuden Mirai Energy Co., Inc. has been working to commercialize a project in the Hibikinada area of Kitakyushu City, Fukuoka Prefecture (power output: approximately 220 MW).

In addition, we are actively promoting development outside the Kyushu region through efforts such as a business feasibility study of the sea area off of Yurihonjo City, Akita Prefecture, in collaboration with RWE Renewables GmbH (Germany).

#### Offshore wind power generation in Hibikinada (conceptual image of the development)



#### Studying the commercial feasibility of the project in the sea area off of Yurihonjo City



\*1 800 MW of renewable energy (wind power, solar power, biomass, geothermal power, and hydroelectric power) achieved in the Hibikinada offshore wind power public offering

\*2 2,500 MW of offshore wind power in Europe

### Geothermal and Hydraulic Power

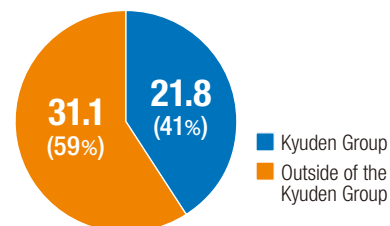
In the field of geothermal power, the Kyuden Group has approximately 220 MW of installed capacity in Japan, which accounts for about 41% of the total installed capacity in Japan, including the Otake Power Station, Japan's first commercial power plant that started operation in 1967. We are currently promoting new development projects, including geothermal resource surveys in the Kyushu area (at five sites) and outside the region (at one site).

Overseas, we are participating in the Sarulla Geothermal IPP\* Project (approx. 330 MW) in Indonesia, one of the largest geothermal projects in the world.

In the development of hydropower, we have a long track record, including the Koyamada Power Station (Kagoshima Prefecture), the oldest power plant in Kyushu, which was built in 1898. Currently, we are working to increase output and power generation through means such as replacing existing facilities.

\*Independent Power Producer

#### Geothermal power plants in Japan (output of 10MW, as of March 31, 2020)



Source: Taken from "The Current State and Trends of Geothermal Power Generation," published by the Thermal and Nuclear Power Engineering Society

### Biomass

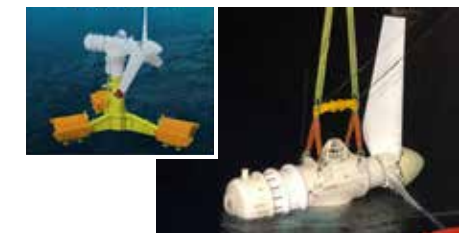
Now actively engaged in developing, Kyuden Mirai Energy Co., Inc. is scheduled to start operation of four plants (approx. 220 MW) in FY2021.

Since May 2021, Kyuden Mirai Energy Co., Inc. has been participating in a fuel pellet production project in Laos in order to secure stable fuel supplies.

### Tidal Current

Having started to pilot Japan's first ever large-scale tidal stream power generation (500 kW) at Naruseto, off the coast of Goto City in Nagasaki Prefecture in 2021, we will be considering expansion of the scope of the project.

#### Tidal current power generation (conceptual image of the development)



### TOPICS Kyushu Electric Power (Kyushu EP) issues its debut green bond

In June 2021, Kyushu EP issued its debut green bond, a bond that dedicates use of funds exclusively to projects that improve the environment, such as the development of renewable energy sources, in order to increase awareness among a wide range of stakeholders of the Kyuden Group's low-carbon and non-carbon initiatives, as well as to diversify fund procurement. The status of fund allocation and impact reporting for this green bond will be reported in the next and subsequent integrated reports.

#### Outline of the Kyushu EP debut green bond

<b>Issue amount</b>	15 billion yen	<b>Term</b>	10 years
<b>Interest rate</b>	0.310%	<b>Issue date</b>	June 10, 2021
<b>Use of funds</b>	New investments and refinancing of existing investments in the Shin-Takeda Hydro Power Station, the Jikumaru Hydro Power Station and the Otake Geothermal Power Station		

# Growth Businesses: Overseas Businesses

## Business Outline

We are developing energy-related businesses in countries around the world by utilizing the technologies and know-how in the electric power industry the Kyuden Group has accumulated in Japan and overseas. With an eye on future market expansion, we have positioned these businesses as some of our most promising growth businesses, and are actively promoting the expansion of the areas and business domains in which we operate.

### Overseas Energy Business

We are expanding into the US and the Middle East, with a focus on Asia, where the market has high growth potential, and are aiming to expand into Europe and Africa.

### Overseas Consulting Business

In cooperation with our own Group companies and other highly specialized partners, we conduct surveys on the introduction of renewables and support the formulation of electricity master plans.

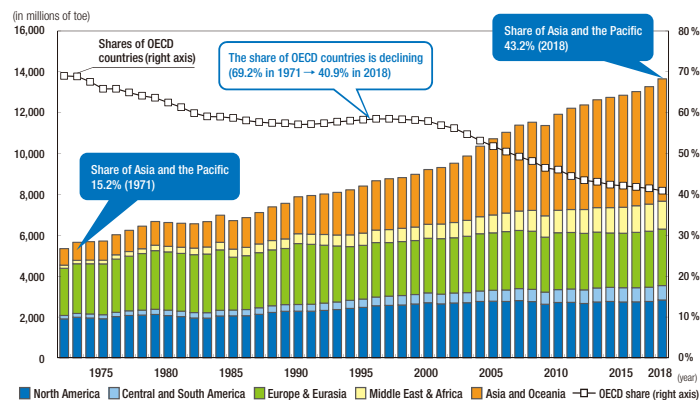
### New Business Fields

In recent years, we have been participating in new business fields such as microgrid projects in island countries. In the future, we will continue to expand our business into areas such as the power transmission and distribution business.

## How We See the Business Environment

- Increased energy demand in Asia and other emerging countries
- Expanded business opportunities due to the growing need to decarbonize and decentralize power sources
- Changes in the financing environment for power plant construction due to the shift to ESG investment
- The existence of country and market risks specific to each country and region

### Changes in primary energy consumption around the world (by region)



Note: "toe" is an abbreviation for "tonne of oil equivalent."

Source: Based on BP "Statistical review of world energy 2018" and Agency for Natural Resources and Energy "White Paper - Annual Report on Energy 2019."

(as of the end of FY2020)

### Overseas power generation assets

13 countries/regions  
Equity ownership in output: 2,430 MW

### Overseas consulting

Cumulative total of 84 projects in 23 countries

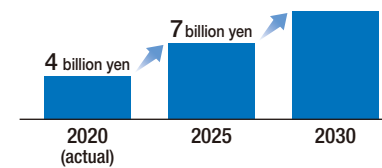
## Vision for the Future

We provide energy solutions based on the needs of each region and its specific circumstances by making the most of the technologies, know-how, and networks that the Kyuden Group has cultivated thus far in the electric power business and other businesses in Japan and overseas.

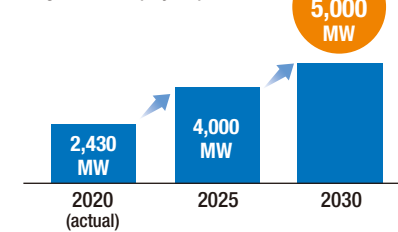
In addition to achieving an overseas equity output of 5,000 MW by 2030, we will generate profits as the core of the Kyuden Group's growth fields, and aim to contribute to the achievement of 75 billion yen in ordinary income from growth businesses in FY2030.

### Ordinary income snapshot

Ordinary income from overseas renewable energy business is included in the ordinary income from "Growth Businesses: Renewable Energy Businesses."



### Overseas power generation equity output



## Business Strategy

### Expansion of renewable energy

Together with group companies, we will promote the further development of geothermal power generation, an area in which the Kyuden Group has a proven track record in Japan and overseas, and is of a high technical standard worldwide. We will also participate in promising projects such as offshore wind power and hydroelectric power, where we can utilize the insights we have gained through our experience in Japan, with the aim of increasing profits.

### Expansion of development areas and business domains

Leveraging our track record of successful IPP and other business ventures in Asia, the US, and the Middle East, we will promote business development in Europe, an advanced renewable energy region, as well as in Africa, where future economic growth is expected.

We will continue to focus on the consulting business by leveraging the technology and know-how we have cultivated in Kyushu regarding the formation and operation of facilities and grid operation, as exemplified by our approach to the large-scale introduction of renewable energies. We will also develop businesses in the fields of microgrids and power transmission and distribution, aiming to cultivate them as new sources of revenue.

### Risk management initiatives

We conduct monitoring based on the characteristics of each investment project in order to identify signs of possible value loss. We also conduct risk-return analysis and other measures to optimize our asset portfolio.

Specific Initiatives

Renewable energy Sarulla Geothermal IPP Project, Indonesia

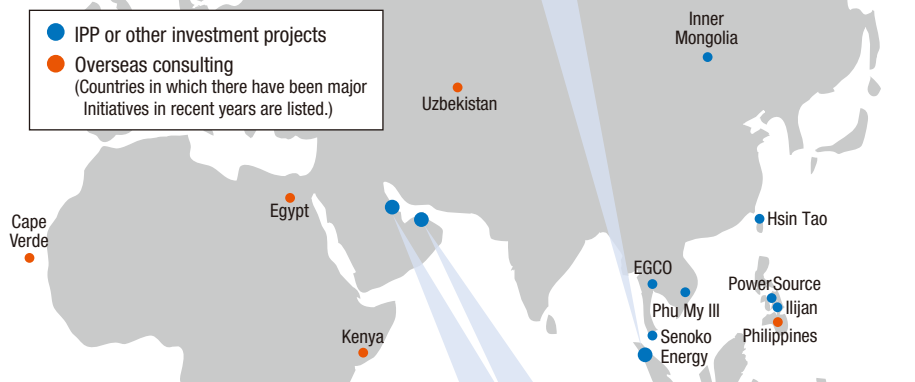
One of the world's largest geothermal power generation projects, this is being developed and operated in North Sumatra, Indonesia. In Indonesia, where demand for electric power is expected to increase in the future, we have constructed a geothermal power plant with an output of approximately 330 MW, and have been selling the power to the Indonesian State Electricity Company for three decades.



Renewable energy Thermochem Inc., USA

Thermochem Inc. is a geothermal technology service provider that was jointly acquired by Kyuden International Corporation and West Japan Engineering Consultants, Inc. The company provides advanced geothermal technology services, as well as manufacturing, sales, research and development of specialized equipment, and has made a significant contribution to the Sarulla Geothermal IPP Project in Indonesia.

- IPP or other investment projects
- Overseas consulting (Countries in which there have been major Initiatives in recent years are listed.)



Power generation and desalination business

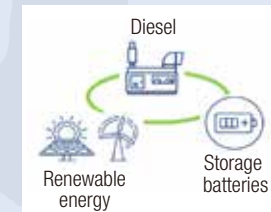
Taweelah B, United Arab Emirates; Al Dur 1, Bahrain

In December 2019, we participated in the Taweelah B Power Desalination Project in the Taweelah region of Abu Dhabi, UAE, which owns and operates a natural gas-fired power generation facility with a total output of 2,000 MW and a seawater desalination plant with a capacity of 730,000 tons per day, and supplies power and water to Emirates Water and Power Company under a long-term contract. (This is the Kyuden Group's first ever power generation and desalination project in the Middle East.)

In August 2021, Kyushu Electric Power also participated in the Al Dur 1 power generation and seawater desalination plant project (total output: 1,230 MW, daily capacity: approximately 220,000 tons) in the neighboring Kingdom of Bahrain, supplying power and water to the Bahrain Electricity and Water Authority under a long-term contract.

Microgrid business Enernet Global Inc., USA.

Enernet Global Inc. is a US venture company in which Kyuden International Corporation has invested and entered into a strategic partnership agreement. Enernet Global Inc.'s microgrid business serves customers who mainly use diesel power generation by planning the optimal configuration and operation of facilities that combine distributed power sources such as renewable energy and storage batteries using software developed by the company. (Main business regions: Asia, Oceania, and the Caribbean)



# Growth Businesses: ICT Service Business

## Business Outline

We provide ICT services by leveraging the accumulated strengths of the Kyuden Group as we have developed technologies and expertise through our electric power business in the development, maintenance and operation of highly reliable communication network facilities and information communication systems that contribute to the stable supply of electric power. As demand for electricity is expected to expand in line with the promotion of the digital transformation of society, the Kyuden Group has positioned the ICT service business as one of our growth businesses and is proceeding forward with initiatives in this area.

### BtoC services

We provide ICT services that support our customers in their desire to lead more comfortable lives.

- Optical internet service and smartphone service (mobile service)

Note: The above services are also available for corporate customers.

### BtoB Services

Solution services that use ICT technology to address the business challenges of companies and local governments are among the BtoB services that we offer.

- Data center services
- Information security services
- Information platform services
- Information consulting services
- Total support services for the design, development, implementation, maintenance and operation of information and communication systems
- Manufacturing and sales services of communication equipment and power supply equipment, etc.

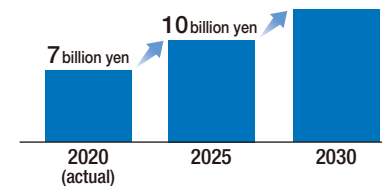
## How We See the Business Environment

- Advances in digital technologies such as AI, IoT, and mobile technologies (5G/Beyond5G)
- Acceleration of digital transformation (DX) in society that accompanies the above developments
- Expansion of demand for data centers due to the increased use of cloud services caused by the pandemic and other factors
- Increasing severity and frequency of natural disasters (and the consequent need for disaster preparedness and greater network resilience)
- Growing need for enhanced security due to increases in cyber attacks

## Vision for the Future

We will aim to contribute to the achievement of 75 billion yen in ordinary income from growth businesses in FY2030, and contribute to the sustainable development of local communities and society through our businesses by expanding profits in existing businesses and providing ICT services targeting new business domains that meet the various needs of customers and society.

### Ordinary income snapshot



### Improvement of the operating profit margins of existing businesses

(As of FY2025, achieve increases of 50% or more relative to FY2020)

### Development and offering of new services

- Advertising (digital advertising production and planning, etc.)
- Financial and medical services (fintech, AI pathology analysis, etc.)
- Primary industries (IT sensors for agriculture, etc.), etc.

## Business Strategy

### Profit expansion in existing businesses

We will expand earnings by providing ICT solution services that best meet the diverse needs of our customers, including the need to strengthen security in line with the promotion of digital transformation by utilizing our high-security networks, data centers, and information and telecommunications know-how. We will also expand our business areas outside Kyushu and overseas by establishing new bases for providing services outside Kyushu.

### Development and offering of new businesses and services

We will diversify our business portfolio and increase sales and profits by expanding ICT services that target new business domains.

We will promote the rapid development and offering of services through collaboration among Group companies, human resource development, M&A, and collaboration with other companies.

We will contribute to the promotion of digital transformation by local governments and local companies.

Main services provided



BBIQ has been the No. 1 fiber optic internet service in the Kyushu area for five consecutive years. QTmobile (QTnet Co., Ltd.) is an affordable smartphone service that supports the lines of three major carriers.



Fukuoka No. 3 Data Center (QTnet Co., Ltd.) is a reliable urban data center created to be impervious to disasters.



QTnet Co., Ltd., and Kyuden Business Solutions Co., Ltd., offer corporate security-related services to protect customers' information assets.



NAST (Kyushu Electric Business Solutions Co., Ltd.) is a comprehensive management system that centrally manages aircraft operation and maintenance information.



Kyuden Drone Services (Kyushu Electric Power) provides aerial photography, inspection, surveying with the use of drones, and video editing.



MIHARAS (Nishimu Electronics Industries Co., Ltd.) offers IT sensors for agriculture in overseas markets.

# Growth Businesses: Urban Development Business

## Business Outline

We are engaged in urban development, real estate, and social infrastructure businesses by leveraging the knowledge and expertise we have accumulated in our business activities to date span various areas such as civil engineering and construction, plumbing, energy services, and ICT. As these businesses are expected to generate synergies with the electric power business, such as increased demand for electric power through regional development, we have positioned them as growth businesses and are promoting related initiatives across the entire Kyuden Group.

### Urban development and real estate

We are engaged in a wide range of urban development and real estate businesses in Japan and overseas, including office building development, commercial facility development, leasing, housing, and building maintenance.

### Social infrastructure

In addition to steadily promoting management business at Fukuoka, Kumamoto, and Hiroshima airports, we are also considering offerings in social infrastructure fields other than airports.

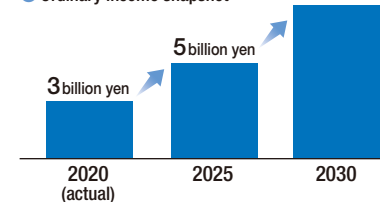
## How We See the Business Environment

- Growing global push for low-carbon and non-carbon power sources to reduce environmental impact
- Evolution of technology in ways such as the acceleration of digital transformation
- Structural changes to society due to the pandemic
- Increasing interest in sustainability through means such as diversified lifestyles and the reuse and extended lifespan of assets
- Accelerated developments by using private sector funds and ingenuity to promote smart cities and public services

## Vision for the Future

We aim to contribute to the achievement of 75 billion yen in ordinary income from growth businesses in FY2030 by expanding earnings in Japan and overseas through the continuous acquisition of the most profitable projects by using our corporate network and promoting development that leverages synergy with the electric power business and other energy-related businesses. We will also contribute to the sustainable development of communities and society through our businesses.

### Ordinary income snapshot



### Expansion of business domains and areas

- Urban development and mixed-use development
- Industrial real estate (logistics facilities, data centers, etc.)
- Fee-based business
- Overseas real estate development projects, etc.

## Business Strategy

### Expansion of revenue and diversification of revenue sources

We will expand existing businesses such as offices, housing, and airports while utilizing the corporate network of the Kyuden Group.

In addition to area development such as urban development and mixed-use development, we will step up initiatives in new profit-generating businesses, including industrial real estate such as logistics facilities and fee-based businesses that are expected to generate synergy with the electric power business.

In addition to Kyushu, we will also promote the expansion of our business areas outside Kyushu and overseas.

### Contributing to the sustainable development of communities and society as an energy provider

We will contribute to the realization of a low-carbon and non-carbon society by promoting environmentally friendly urban development through the promotion of electrification, improved energy efficiency, and effective use of renewable energy.

As a platform to support infrastructure, we will provide a variety of services such as energy, ICT, and area management.

### Major projects



Development of office buildings in Chuo-ku, Fukuoka City [Fukuoka Maizuru Square] (to be completed in spring 2022)



Project to utilize the former Fukuoka City fruit and vegetable market site (to open in spring 2022)



Public complex project at the former site of Oita City's Niagemachi Elementary School (to open in spring 2024)



Logistics facilities business in Fukuyama City, Hiroshima Prefecture (acquired in March 2021)



Development of rental housing in Atlanta, USA (completed in May 2021)



Kumamoto Airport New Terminal Building (to be operational in spring 2023)