

Growth Businesses

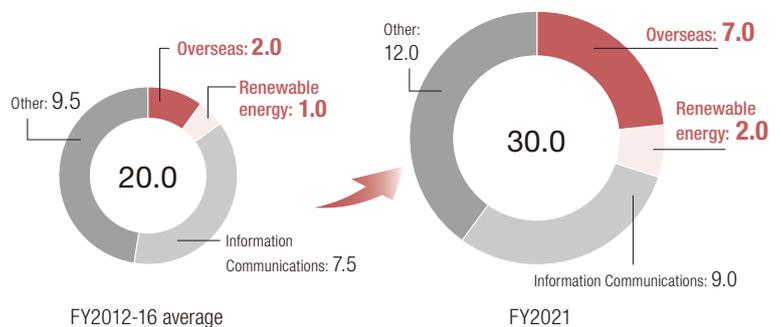
Basic Strategy

By leveraging the accumulated strengths of the Kyuden Group, we will expand our energy business outside the Kyushu region, in overseas markets, and in the field of renewable energy.

Principal Initiatives

- 1 Reinforce overseas electric power business
- 2 Extend domestic electric power business outside the Kyushu region
- 3 Expand renewable energy business

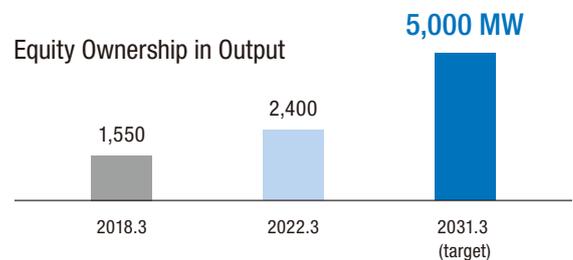
■ Ordinary income target, excluding electric power business in the Kyushu region (Billions of yen)



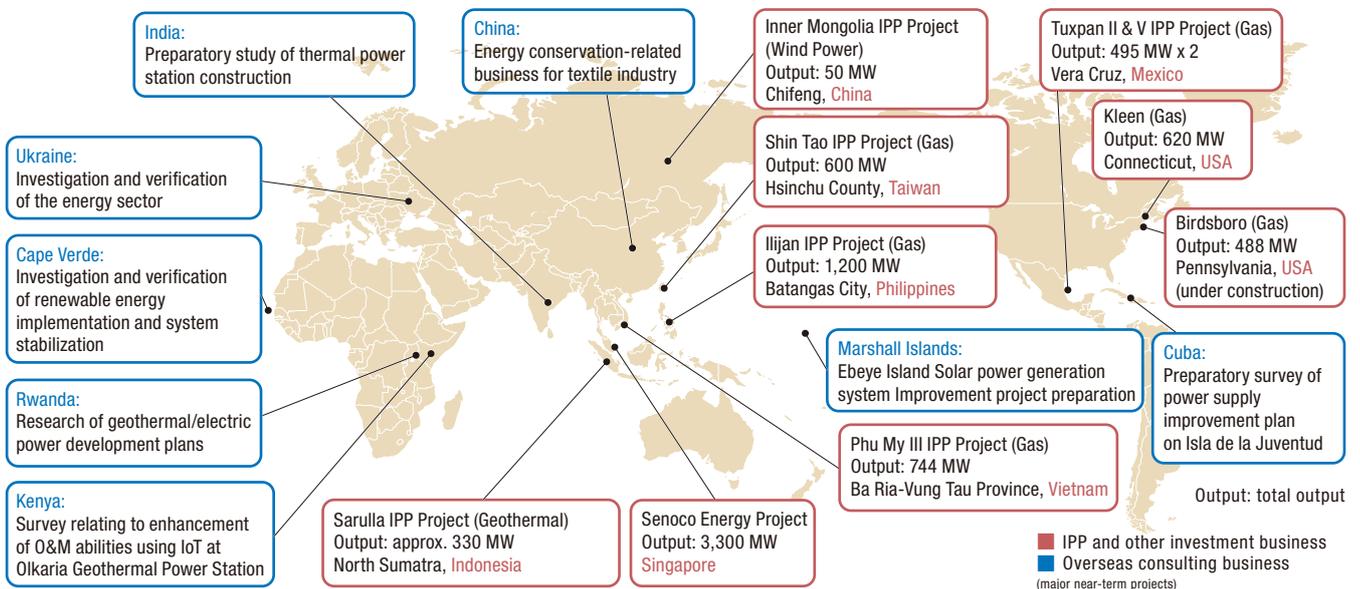
Individual Strategies

Reinforce Overseas Electric Power Business

We will utilize technologies and expertise accumulated in Japan and abroad to develop our Independent Power Producer (IPP) business, centering on the high-growth Asian market. We are also engaging in activities in the US and Europe to expand our overseas electric power business.



Overseas Energy Business Initiatives (as of June 30, 2018)



All Sarulla Geothermal Power Units Commence Operation

Total output **approx. 330 MW (3-unit system)** Equity share **25%**

Unit 3, the final unit of Indonesia's Sarulla Geothermal IPP Project, commenced operation in May 2018. With this milestone, the project's total geothermal power output (three units) is the largest in the world.

The electricity generated at the Sarulla Geothermal Power Station is slated to supply a national electric power company over a 30-year period and is expected to be a stable source of income.



Unit 1: Operation commenced March 2017
 Unit 2: Operation commenced October 2017
 Unit 3: Operation commenced May 2018

Participation in Birdsboro Gas-fired Thermal Power Plant

Total output **488 MW** Equity share **11.1%**

In December 2017, Kyushu Electric Power acquired 11.1% of the equity of the Birdsboro gas-fired thermal power plant under construction in Pennsylvania, USA. This was our first equity participation in an American power generation business. Ahead of the start of operation in 2019, we continue to appropriately monitor construction progress and other aspects on the project.

Once the operation commences, it is expected to supply power to the northeastern US through PJM, one of the country's wholesale power markets.



Participation in Kleen Energy Gas-fired Thermal Power Plant

Total output **620 MW** Equity share **20.25%**

In May 2018, Kyushu Electric Power acquired a 20.25% equity share in the Kleen Energy Gas-fired Thermal Power Plant involved in the power generation business, located in Middletown, Connecticut.

The combined-cycle plant in Middletown generates power using a highly efficient gas turbine, and is an important source of stable power for the northeastern US through ISO-NE.

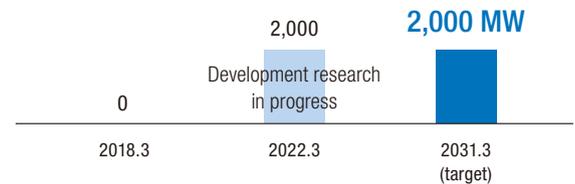


Electric Power Business Outside the Kyushu Region

Through partner alliances and other measures, we are working to develop energy sources for other regions.

In the interval before these sources come online, we are using other approaches, such as market procurement, to engage in electric power sales.

Output Development



Development of Own Power Sources Outside the Kyushu Region Through Partner Alliances

Total output → **2,000 MW**

Chiba-Sodegaura Energy Co., Ltd, which we established in partnership with Idemitsu Kosan Co., Ltd. and Tokyo Gas Co., Ltd., is continuing the process of investigating, and evaluating the environmental impact of, opening a coal-fired thermal power plant.

With full liberalization of the retail market for electric power, the partners are leveraging their respective value chain strengths to deliver safer, more reliable, and more affordable electric power.

We will do our utmost to address environmental impact and will also contribute to the local economy.



Unit 1: Operating commencement FY2025 (planned)
Unit 2: Operation commencement FY2026 (planned)

Extending Retail Electric Power Sales Outside the Kyushu Region

Accounts acquired → **approx. 6,700**
(as of March 31, 2018)

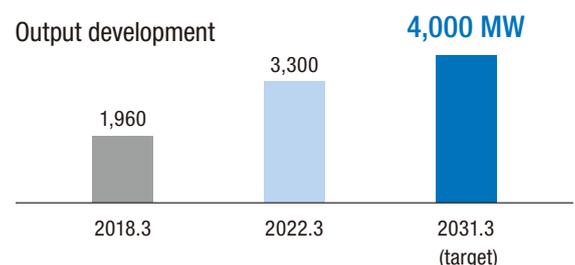
Since April 2016, the Kyuden Group's wholly-owned subsidiary Kyuden Mirai Energy Company, Inc. has been engaged in retail electric power sales in the Kanto region. Starting in January 2017, the company extended its sales efforts to customers in the high-voltage bracket and above.

Expanding Our Renewable Energy Business

The Kyuden Group is working as one to expand its renewable energy business in Japan and abroad, emphasizing stable energy procurement and environmental benefits.

We are utilizing our accumulated technology and pushing forward with new technology development with a focus on geothermal and hydropower, as well as offshore wind power, which offers hidden potential.

Output development



Yamagawa Binary Cycle Power Station Commences Operation Total output **4.99 MW**

In February 2018, Kyuden Mirai Energy Company, Inc. began managing Yamagawa Binary Cycle Power Station, located at our Yamagawa geothermal power station.

The new binary cycle facility makes effective use of geothermal water not used for power generation in the main facility using a geothermal binary method, which generates power by utilizing a medium with a lower boiling point than water.



Megasolar Power Generation Outside the Kyushu Region Total output **43.50 MW**

An LLC corporation established by five partners, including Kyuden Mirai Energy Company, Inc., Kyudenko Corporation, and ORIX Corporation, created Renatosu Soma Solar Park to make effective use of agricultural and other land in Soma, Fukushima that suffered tsunami-related salt damage after the Great East Japan Earthquake. The facility commenced operation in June 2017.



Toward Practical Use of Tidal Power Total output **2.00 MW**

A four-company consortium that includes Kyuden Mirai Energy Company, Inc. and Nippon Steel & Sumikin Engineering Co., Ltd. is working on Japan's first large-scale proof-of-concept facility for tidal power generation in the ocean off Goto City, Nagasaki Prefecture. Test operation is planned to begin in FY2019, after further research into tidal currents at the site, design and construction of power generating units, and other preparations are complete.



Biomass Power Generation Total output **74.98 MW**

Kyuden Mirai Energy Company, Inc., Nishinippon Plant Engineering and Construction Co., Ltd., and Kyuden Sangyo Co., Inc. established Shimonoseki Biomass Energy LLC in December 2017. The new entity, based in Shimonoseki, Yamaguchi, will carry out research, construction, operation, and management of what is set to become one of Japan's largest biomass power generation facility using wood combustion.

