

March 24th, 2020 Kyushu Electric Power Co., Inc.

Kyushu Electric Power Co., Inc. has been commissioned by JICA to undertake the Project on Electricity Sector Master Plan Study for Development of Renewable Energy for the Republic of Cuba

Utilization of Kyuden Group knowledge to promote the introduction
 of renewable energy in Cuba —

On March 23, 2020, Kyushu Electric Power Co., Inc. (Kyuden) was commissioned by the Japan International Cooperation Agency (JICA) to implement the Project on Electricity Sector Master Plan Study for Development of Renewable Energy (hereinafter "the Project") for the Republic of Cuba, as an overseas consultation project, in collaboration with West Japan Engineering Consultants, Inc., a Kyuden Group company, and Japan Weather Association.

In Cuba, the government and Unión Eléctrica de Cuba have been promoting the introduction of renewable energy (hereinafter "renewables") with the goal of raising the rate of renewables to 24% by 2030 (the current rate is about 5%, calculated in kWh). With the aim of promoting the introduction of renewables, the Project will confirm Cuba's overall national renewables potential, examine its existing renewables development plans and formulate the electricity sector master plan* for the introduction of renewables.

The Kyuden Group has gained extensive experience in studying the introduction of renewables and improvement of the power supply in Cuba and has built a good relationship with pertinent Cuban institutions. The company is resolved to work together with Unión Eléctrica de Cuba to further introduce renewables and ensure a stable power supply in the country, by utilizing the knowledge of its transmission and distribution divisions on grid stabilization necessitated by the integration of renewables as well as the technical expertise and knowhow associated with renewables introduction which the Kyuden Group has cultivated in the Kyushu region.

The Kyuden Group will continue its commitment to provide solutions that address the issues and needs of the target country and to create new business opportunities by pooling the group's comprehensive abilities.

*Comprehensive plan that serves as the basis of electrical facility formation for the future.



Outline of the Project

	Draiget on Electricity Coster Master Dan Study for Development of
Project name	Project on Electricity Sector Master Plan Study for Development of
Target	Renewable Energy
Target country	Republic of Cuba (capital: Havana)
Related	· Unión Eléctrica de Cuba (UNE)
government departments	Ministry of Energy and Mines (MINEM)
& institutions	Ministry of Foreign Trade and Investment (MINCEX), etc.
Commission period	March 2020 – February 2022 (2 years)
Main tasks	(1) Renewables potential evaluation - Evaluate renewables potential and create development area maps (2) Suggestion of methods and measures to facilitate stable grid operation upon renewables development - Incorporate measures for stable grid operation in the renewables development plan covering the period up to 2030 (3) Formulation of the electricity sector master plan - Examine the renewables development plan by taking into consideration (1) and (2) above and create a power source and grid expansion plan towards renewable energy introduction (4) Improvement of technical abilities of relevant UNE personnel - Offer technical instructions and transfer technology to improve UNE's
Outline of Cuba	technical abilities Population: approx. 11.49 million (2017 World Bank data. Comparable to that of Kyushu) Area: 109,884 km² (about half of that of Honshu, Japan's main island) Language: Spanish Main industries: tourism, sugar, tobacco, seafood, petroleum, nickel, medical and biotechnology GDP (2017 World Bank data): 96.9 billion USD (per capita: 8,433USD) Economic growth rate (2017 National Statistics Office data): 1.8 %
Kyuden's activities in Cuba *All JICA projects	Apr. 2017 – Jun. 2018: Data collection and confirmation related to the introduction of renewable energy Jun. 2018 – Mar. 2019: Preparatory study for the power supply improvement plan for the Isle of Youth Dec. 2018 – Feb. 2019: Study for detailed planning toward the Project on the Electricity Sector Master Plan Study May 2019 - present: Power supply plan for the Isle of Youth (grant aid)