

Hioki Regional Energy Co., Ltd.
Kyocera Corporation
Hitachi Power Solutions Co., Ltd.
September 11, 2020

Hioki Regional Energy, Kyocera, and Hitachi Power Solutions Sign Joint Research Agreement for Microgrid Energy Management

Hioki Regional Energy Co., Ltd., Kyocera Corporation, and Hitachi Power Solutions Co., Ltd. announced the signing of a joint research agreement for microgrid* energy management in Hioki City, Kagoshima Prefecture, in Kyushu, Japan on July 27, 2020.

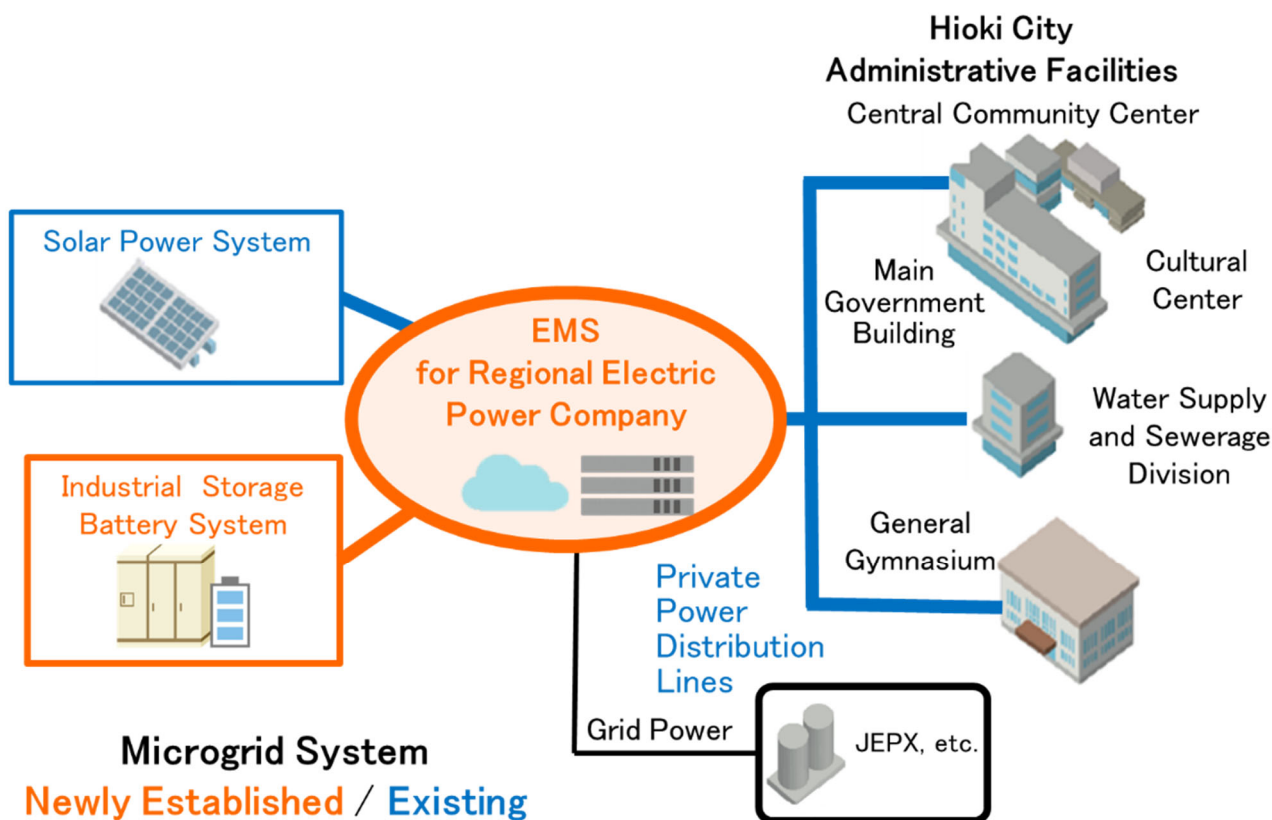
Through this joint research, in cooperation with Hioki City, the three companies aim to contribute to decarbonization in the region with locally produced and consumed renewable energy, revitalize the regional economy, and develop power balancing technology that continues to supply electricity during natural disasters.

Joint Research Overview

Hioki Regional Energy Co., Ltd., was established in 2015 from an investment from several companies, organizations, and individuals (17 in total), with deep ties to Hioki City. The company has been supplying electric power to households and companies mainly in Hioki City since July 2016 to create a sustainable community, and in March 2019, the company began operating microgrids in two areas combining both solar power generation and cogeneration systems. In one area, solar electricity was supplied to consumers through private power distribution lines, while the remaining electricity shortage was supplied by the Japan Electric Power Exchange (JEPX) and other sources.

The joint research aims to increase the proportion of renewable energy used in the region and help revitalize the regional economy by introducing energy management systems (EMS) for industrial storage batteries and regional electricity companies to optimize power costs through the effective use of surplus power generated from solar, peak-cut control, and energy imbalance adjustment. In addition, the project will verify the effectiveness of solar storage batteries in supplying back-up electricity to Hioki City facilities during natural disasters.

*"microgrid" refers to a small-scale energy network that does not rely on the power supply of a large-scale power plant but aims for local production and consumption using energy sources and consumption facilities in the community.



Conceptual diagram of microgrid energy management experiment

As part of the research, Kyocera is in charge of installing the industrial storage battery systems and the development of a regional EMS, Hitachi Power Solutions, which designed and constructed the existing microgrid, is in charge of storage battery system design, and Hioki Regional Energy will operate the systems. The joint experiment will be conducted for a period of one year beginning February 2021.

The three companies aim to contribute to sustainable community development through stable locally produced and consumed renewable energy, and help revitalize the local economy.

About Hioki Regional Energy Co., Ltd.

The Hioki Regional Energy Co., Ltd., established in 2015 with the investment from companies, organizations, and individuals, deeply related to Hioki City (17 in total) has been supplying electric power to households and companies mainly in Hioki City since July 2016, aiming to construct a sustainable community. The company plays a role to support residents' life and community activities. Moreover, they aim to contribute to regional economies and to create jobs through electricity generation, electricity sales, and infrastructure development. The Hioki Regional Energy Co., Ltd. will contribute to development of the Hioki City through this activity.

Information contained in this news release is current as of the date of the press announcement,
but may be subject to change without prior notice.
