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Hitachi ABB Power Grids Ltd. has been selected by Impact Solar Limited, a subsidiary of Impact Solar Group, to deploy the e-mesh™ PowerStore™ battery energy storage solution (BESS) and control system as part of Thailand's largest private microgrid at Saha Industrial Park in Sriracha. Once commissioned, the park will have a total generation capacity of 214 MW from a combination of co-generation gas turbines, rooftop solar, floating solar, and battery energy storage systems.

The advanced microgrid is digitally-enabled to integrate the electricity produced from distributed energy resources (DERs), including solar, and simulates a utility scale power system. Using real-time automation information, the microgrid will manage and optimise the power output of DERs from across the entire industrial park. The microgrid also balances energy fluctuations resulting from the intermittent availability of sunshine and will provide back-up power to the park's data center and other tenants who rely on grid stability for their businesses.

"Hitachi ABB Power Grids" battery energy storage system (BESS) is a critical part of Impact Solar Group's plans to develop a more sustainable and resilient industrial park, said YepMin Teo, senior vice president, Asia Pacific, Hitachi ABB Power Grids, Grid Automation. "The model balances generation from various distributed energy sources, builds in redundancy for future data center demand, and lays the foundation for a peer-to-peer digital energy exchange platform among the industrial park's customers."

The project is a prime example of the energy transformation underway across Thailand, as the nation sets a new renewable target of 30 percent of total final energy consumption by 2036 in its Alternative Energy Development Plan.* The site is intended to serve as a model for other parks within the Saha Group's portfolio, as well as for facilities owned by others.

"Saha Group envisions investment in clean energy at our industrial park as contributing to the reduction in greenhouse gas globally. This will lead to long-term sustainability and better quality of life, while delivering quality products produced with clean energy. Our ambition is to ultimately create a smart city for our partners and communities. We hope this project in Saha Group Industrial Park Sriracha will be a model for the public and private sectors," said Mr. Vichai Kulsomphob, president and CEO of Saha Pathana Inter-Holding Public Company Limited

"Impact Solar is the leading provider of distributed and digital energy across Asia. We are proud to be part of the Saha Smart Industrial Park project as it allows us to be at the forefront of innovation. With Hitachi ABB Power Grids' e-mesh(TM) solutions, we are optimising generating assets from solar facilities and gas-fired plants, which sets the stage for future digital energy exchange platforms," said Mr. Peck Khamkanist, Impact Solar Group's chairman.

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This project builds on Hitachi ABB Power Grids' global Grid Edge Solutions footprint of more than 500 megawatts (MW) and 200 references. The business' technology has enabled customers to create economic, social and environmental value by unlocking new revenue streams, maximizing renewable integration, and lowering carbon emissions.

Hitachi ABB Power Grids Ltd. was selected to implement both the e-mesh PowerStore battery energy storage system (BESS) and distribution management system (DMS600) to improve both system reliability and quality of power with advanced digitalization capabilities. The goal is to reduce peak demand, power losses in the distribution line, and levels of greenhouse gas (GHG) and carbon dioxide (CO₂).

“With RSS 2016 PCL's competent innovations, technology, and expertise in the electrical engineering industry, we are able to provide EPC construction services to manage for the Betong microgrid project. This initiative will bring secure, high quality power to the coverage area. In addition, this project also readies the electric power network to support distributed generators and future very small power producers (VSPPs)” said Mr. Pairoj Sirirat, CEO of RSS 2016 Public Company Limited.

Energy storage plays a critical role across the multiple pathways towards a carbon-neutral energy system. These projects demonstrate the ability for utilities to improve the flexibility and reliability of power grids while adding new renewable resources. Hitachi ABB Power Grids is proud to help our customers in Thailand and elsewhere enable digitalization of distributed energy resources and unlock new opportunities.

The project builds on Hitachi ABB Power Grids' global Grid Edge Solutions footprint of more than 600 MW of battery energy storage systems and the intelligent automation solutions supporting them worldwide. The company has more than 30 years of experience in delivering similar solutions to industrial and commercial sites, utilities for the efficient management of decentralized renewable production, and remote regions that invest in energy self-sufficiency.

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