



Ampt Completes Delivery to Edison Power for Solar+Storage Microgrid Project Being Developed by Toccoo, Inc. in Japan

Ampt String Optimizers provide critical link between the PV array and battery system to maximize roundtrip efficiency of Edison Power's first DC-coupled system, helping to meet local utility requirements

Yokohama, Japan and Kisarazu City, Japan — July 11, 2023 — [Ampt](#), the #1 DC optimizer company for large-scale photovoltaic (PV) systems, today announced that it is working with [Edison Power Co., Ltd.](#) to integrate Ampt String Optimizers into a solar+storage microgrid project being developed by Toccoo, Inc. (HQ: Tokyo) for the utility Okinawa Electric Power Company in Miyakojima, Japan. The project supports Miyako Island's goal to source 55 percent of the region's electricity from renewable energy by 2030.

Edison Power is using Ampt technology to enable a Direct-to-Battery[®] DC-coupled architecture, which marks the first project of this kind for the utility. Ampt String Optimizers provide the critical link between the PV array, battery system, and inverter to manage intermittency, control frequency, and achieve two percent or less power fluctuation of rated output per minute, as required by the Okinawa Power Company and local legislation. Edison Power is deploying Ampt String Optimizers with lithium iron phosphate batteries from Gotion and string inverters from Huawei. The microgrid system consists of 1200 kWp of solar linked through optimizers to 1700 kWh of batteries and 700 kW of inverters.

Ampt String Optimizers are DC/DC converters that perform maximum power point tracking (MPPT) on each string of PV modules to increase the lifetime performance of the system. In a Direct-to-Battery design, the optimizers deliver array power to the DC bus that is directly connected to the battery system. Ampt's patented V-match[®] technology enables the optimizers to automatically match and follow the DC bus voltage as it changes with the battery's state of charge. Ampt's Direct-to-Battery architecture simplifies the controls of a PV+storage system while improving dynamic response capabilities and system-wide efficiency. It also eliminates the need for bidirectional battery converters. Ampt optimizers are inverter and battery technology independent.

"Our partnership with Edison Power is a testament to the capabilities of our industry-leading DC/DC converter technology to enable lower-cost and higher-performing DC-coupled solar projects," said Levent Gun, CEO, Ampt. "We look forward to expanding our relationship with Edison Power and having this project serve as an example for the surrounding region to support its energy transition goals, while meeting utility requirements."



“We are pleased to be working with Ampt on Edison Power’s first DC-coupled solar project. We were seeking a power solution that meets our high standards for system responsiveness and performance, and we were impressed with Ampt’s expertise and global footprint of successful DC-coupled installations,” said Mr. Nakamura, general manager of Edison Power’s storage battery business. “With Ampt String Optimizers, we are able to significantly improve roundtrip energy efficiency while saving on capital costs compared to other solutions.”

About Ampt

Ampt delivers innovative power conversion and communication technology that are used to lower the cost and improve performance of new PV systems, repower existing systems, and enable lower-cost DC-coupled storage. With installations and experience serving markets around the world, Ampt is the number one DC optimizer company for large-scale systems. The company is headquartered in Fort Collins, Colorado, and has sales and support locations in North America, Europe, and Japan as well as representation in Asia, Australia, and the Middle East. For more information, visit www.ampt.com and follow Ampt on [LinkedIn](#).

About Edison Power

Edison Power is a renewable energy solutions company that started developing and manufacturing storage battery systems in 1991. In addition to the storage battery system business, Edison Power is developing a solar power generation business, a biomass power generation business, a bark pellet production business, and a solar sharing business. For more information, visit <https://battery-manufacturing.com/>.

About Tocco Inc.

Tocco Inc. aims to create new value to illuminate the future through various businesses, including renewable energy projects. For more information, visit <https://www.tocco8.co.jp/>

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