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Ampt String Optimizers Deployed in the World's Largest Solar+Storage Peaker Power Plant

28MW Solar Photovoltaic Power Plant Uses 100MWh DC-Coupled Energy Storage

Fort Collins, Colo.— **January 22, 2019** — <u>Ampt LLC</u>, the world's #1 DC optimizer company for large-scale photovoltaic (PV) systems, today announced Ampt String Optimizers are powering a record-breaking PV peaker power plant that has 28 megawatts (MW) of solar PV and 100 megawatt-hours (MWh) of DC-coupled energy storage. Ampt String Optimizers are DC/DC converters that are used in the PV array to lower the cost and improve the performance of utility-scale PV+storage systems.

The Lāwa'i Solar and Energy Storage Project in Hawaii, which completed this month, became the world's largest operational solar PV+storage peaker plant and is responsible for delivering 11% of Kauai's power while providing mission critical grid support during peak demand periods. The completion of this system allows the utility to deliver up to 40% of the island's evening peak power using stored solar energy.

To meet the demanding operational needs of a clean energy peaker plant while being cost competitive, the project developer chose to use a DC-coupled storage architecture based on Ampt String Optimizers for its cost and performance advantages. DC-coupled energy storage systems charge batteries using energy from the DC solar array rather than the AC grid.

Ampt String Optimizers decrease the total cost of the entire power plant. Ampt's unique features lower the cost of all the power electronics, including the inverter and battery converter, and save in electrical wiring of the PV array.

Moreover, Ampt String Optimizers maximize the performance of the PV system by managing power on each string of PV modules rather than across the whole array at a central point. This increased granularity mitigates system degradation to deliver more lifetime energy. DC-coupled storage systems based on Ampt operate at a higher efficiency and capture energy that would otherwise be lost.

The power plant includes the wireless communication feature of Ampt optimizers to enhance operations and maintenance (O&M) effectiveness with high-accuracy synchronous string-level data.

"The Lāwa'i project sets the standard for PV+storage system design," said Levent Gun, CEO of Ampt. "We are pleased that Ampt technology played a key role in achieving this industry milestone and we look forward to being part of follow-on projects in Hawaii."

About Ampt

Ampt delivers innovative power conversion and communication technology that provides system level optimization of PV power plants. As the world's number one optimizer company for large-scale systems, Ampt serves the global solar market with award winning products. 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 Southeast Asia, Australia and the Middle East. Along with our strategic partners in the <a href="https://doi.org/10.1007/journal.org/10.1007/jour

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