



## **Ampt Delivers 195 MW of String Optimizers to Power a Major Solar-Plus-Storage Project**

*Ampt's technology enables low-cost, high-performing DC-coupled system to time shift renewables and stabilize the local grid*

**Fort Collins, CO — September 11, 2023** — [Ampt](#), the #1 DC optimizer company for large-scale photovoltaic (PV) systems, announced it has delivered 195 MW of its String Optimizers to power a utility-scale solar-plus-storage project. Power generated by the project will be delivered to the local grid, supporting the transition from coal- and gas-fired generation to clean, renewable energy. The project uses Ampt's high, fixed-voltage PV+DC-coupled energy storage technology to lower system capital expenses and improve performance.

The 195 MW PV power plant uses Ampt String Optimizers to connect to 75 MW / 300 MWh (4 hours) of energy storage through a shared DC bus – commonly referred to as a “DC-coupled” architecture – and to 150 MW of grid-connected inverters. Ampt's String Optimizers perform maximum power point tracking (MPPT) on each string of PV modules and then transfer that power to the DC bus at a high, fixed voltage. These features improve performance, reduce total system cost, and simplify system control while improving grid responsiveness.

By performing MPPT on each string of PV modules, Ampt optimizers improve MPP tracking resolution by 100-300x compared to systems without Ampt that rely solely on central inverters for MPP tracking. Ampt's higher resolution MPPT recovers energy losses due to voltage differences or “mismatch” that is caused by variances in PV module manufacturing, environment, and degradation of components over the lifetime of the system.

Ampt's distributed MPPT approach also gives system owners greater flexibility. The 195 MW power plant used different PV module types at the solar tracker level to maximize utilization of the trackers and system footprint, and to achieve supply chain advantages related to module availability and cost. Because Ampt optimizers are programmable, alterations in system design during both the project development cycle and the life of the system are easier to accommodate to avoid costly redesigns and rewiring.

Ampt's high, fixed voltage DC bus architecture lowers the total system cost by increasing the power density of system components such as electrical cables, battery converters, inverters, transformers, and solar trackers. With Ampt, fewer of these components are used per megawatt delivered.

Ampt optimizers also simplify the control of DC-coupled energy storage systems. In systems without Ampt, the DC bus voltage is continually changing and unpredictable, so determining the



maximum power point requires the control loop to measure the PV, battery, and grid before adjusting setpoints which compromises power delivery and responsiveness. Ampt optimizers solve this problem by uniting power components at a fixed-voltage and achieve the fastest grid response times available in the market in either DC or AC-coupled storage systems.

The 195 MW power plant also benefits from the string-level data that is wirelessly transmitted by Ampt optimizers. Ampt's more precise information and deeper visibility enhances fault prediction, decision-making, and efficiency to improve O&M capabilities and reduce costs.

"We're proud to be a part of this project, which will offset approximately 300,000 tons of carbon emissions annually, and will generate enough energy to power 25,000 homes," said Levent Gun, CEO of Ampt. "Ampt String Optimizers support a growing number of solar-plus-storage systems, ensuring the system performance is never compromised and that renewable energy can be stored to be used later when it's needed most."

Ampt will be exhibiting at RE+ in Las Vegas, Nevada from September 12-14. Visit Ampt at booth #1746 to learn more about how Ampt enables low-cost and high-performance utility scale PV systems as well as large scale DC-coupled energy storage. To set up an appointment, contact Ampt at [info@ampt.com](mailto:info@ampt.com).

### **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](http://www.ampt.com) and follow Ampt on [LinkedIn](#).

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