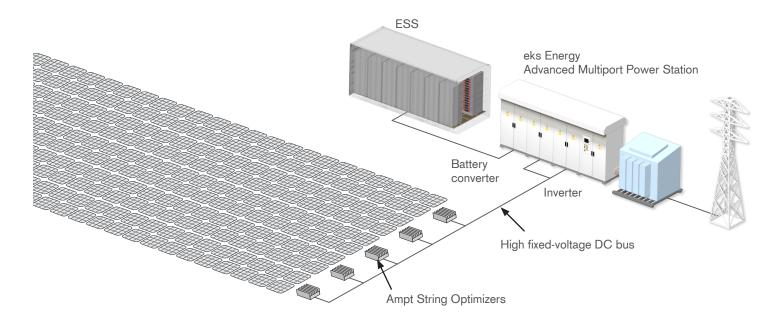




# **Smart DC-Coupled Storage Solution**

eks Energy and Ampt have partnered to provide an end-to-end power conversion solution for lower cost and higher performing utility-scale PV systems with DC-coupled storage.



## The Best Choice for Utility-scale PV+Energy Storage

The eks Energy and Ampt solution fully integrates the eks Energy Advanced Multiport Power Station with Ampt String Optimizers.

This best-in-class energy storage solution is supporting many of the largest missioncritical PV+storage systems in the world.

The joint power conversion solution uses a high fixed-voltage DC-coupled storage architecture to deliver a lower cost and higher performing renewable energy system with the responsiveness of traditional power plants.

- Lower cost per watt power conversion
- Lower cost electrical BOS
- Fewer solar trackers per MW
- Higher DC/AC ratio capability
- Fewer interconnects
- More energy with string-level MPPT
- Avoid energy losses from inverter clipping
- <50ms grid response due to simplified DC controls
- Higher roundtrip storage efficiency
- Smart power curtailment management
- Meets highest grid control requirements
- Improved O&M with string-level data
- Training and support services

### eks Energy Advanced Multiport Power Station

Ampt String Optimizer



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The eks Energy Advanced Multiport Power Station has bi-directional inverters and battery converters that are factory integrated into one enclosure to ensure quality and minimize on-site labor. The station is optimized for use in a fixed-voltage DC-coupled storage architecture to lower costs and simplify system control while improving grid responsiveness.

Ampt String Optimizers are DC/DC converters that perform MPPT on each string of PV modules and then transfer full available power to the DC bus at a high, fixed voltage. Ampt improves lifetime system performance while allowing the entire system to operate at a lower current for a given power to lower total system cost.

### Lower cost clean energy facility with all the functions and manageability of traditional power plants

- Grid code compliance
- Energy shifting
- Ramp rate control
- Frequency regulation
- Frequency response
- Voltage regulation
- VAR support
- High harmonic distortion
- Capacity firming
- Grid Forming

eks Energy is a leading power conversion system manufacturer and energy storage systems integrator that designs, builds and commissions grid-scale projects. With over 5 GW of installed power in 25+ countries, eks Energy is and expert in technological solutions for the integration, management and control of large power plants offering a complete set of power electronics for PV solar, energy storage and grid stability applications.

eksenergy.com

With Ampt String Optimizers in the system, our inverter and battery converter no longer have to manage the variable voltage of a PV array. This increases power density to reduce total system costs to our customers. "

#### Javier Landero; CEO eks Energy

<sup>66</sup>The innovation eks Energy brings to their power conversion products for this solution truly demonstrates the knowledge and flexibility they are known for. <sup>99</sup>

Levent Gun; CEO Ampt



Ampt is the world's #1 DC optimizer company for large-scale PV systems. Ampt delivers innovative power conversion and communication technology that is used to lower the cost and improve performance of new PV systems, enable lower cost DC-coupled storage systems, repower existing systems, and improve O&M. Ampt is a global leader with installations in over 15 countries and more than 2 GW shipped.

ampt.com