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ROSENDIN ELECTRIC ANNOUNCES NEW SERVICE TO UPGRADE EXISTING SOLAR PV SYSTEMS USING AMPT STRING OPTIMIZERS

The Solution Improves Performance of Aging Systems and Provides Inverter Replacement Option

San Jose, CA and Fort Collins, CO — July 11, 2017 — Rosendin Electric, Inc., a national employee-owned company and one of the largest electrical contractors in the U.S., and Ampt LLC, a global leader in power conversion technology, today announced the availability of a new offering to repower large-scale solar photovoltaic (PV) systems that are underperforming or that require inverter replacement. The solution uses Ampt String Optimizers to improve power plant performance and increase return on investment.

With over 2.4 GW of project experience installing mid- to large-scale solar PV systems, Rosendin Electric has vast expertise and EPC capabilities developing the most efficient and cost effective solar solutions. This experience, combined with a nationwide network of highly trained, certified and local electricians, allows the company to provide unmatched technical service to customers. Rosendin Electric is extending its services to include upgrades to existing PV systems using Ampt String Optimizers.

"PV power plants naturally degrade over time, and there are a great number of them underperforming," said Chris Chappell, Director of Engineering and Preconstruction at Rosendin Electric. "Using Ampt String Optimizers, we can repower systems to improve production and maximize ROI over the remaining system life."

Ampt String Optimizers are DC-to-DC converters that put dual maximum power point trackers (MPPTs) on each string of PV modules to improve the system's lifetime performance. Ampt's patented technology recovers approximately 60% of energy losses caused by the electrical imbalances which occur as systems degrade. When used to repower existing PV systems, Ampt optimizers are connected to the existing wires and combiners and include optional wireless communication for remote monitoring and enhanced O&M.

Rosendin Electric's repowering service includes a performance assessment, engineering, installation of Ampt String Optimizers, and re-commissioning of the system. Full-service operations and maintenance (O&M) support is also available to customers.

Rosendin Electric also uses Ampt String Optimizers to provide customers with enhanced inverter replacement services. As PV power plants age, many inverters experience significant faults and downtime, or fail after reaching their expected operating life. Often the original model inverter is either expensive and inefficient compared to modern inverters or is no longer available. In the past, this has caused substantial reworking of the system, or portions of the PV plant to remain offline. Rosendin Electric's inverter replacement service avoids these costly outcomes by deploying Ampt optimizers with modern inverters.

"Combining Ampt String Optimizers with the latest inverters is a cost-effective alternative when replacing inverters," said Mr. Chappell. "In addition, the optimizers enhance system energy production over the remaining life of the power plant."

Ampt optimizers allow 1000-volt inverters to deliver full rated output power in 600-volt systems. Likewise, 1500-volt inverters achieve full rated output power in 1000-volt systems with Ampt. The result is a lower cost per watt inverter utilizing modern technology and a higher performing PV array.

Ampt optimizers are also used to expand systems by adding more PV modules to the existing inverters while operating within specification. Ampt enables these "high DC ratio" systems to operate at DC/AC ratios of 2-to-1 or more to generate up to 70% more energy. Rosendin Electric provides the know-how and EPC services to customers to deploy high DC ratio systems using Ampt to maximize ROI.

"Our cooperation with Rosendin Electric is a significant advantage for the market by combining world-class technology with industry-leading operational excellence," said Levent Gun, CEO of Ampt. "As one of the largest electrical contractors in the U.S. with extensive experience in solar, their capabilities and service are unparalleled."

To learn more about Ampt, visit their booth # 9239 at Intersolar North America – July 11-13, 2017. To learn more about Rosendin Electric, visit http://www.rosendin.com/.

About Rosendin Electric, Inc.

Rosendin Electric, Inc., headquartered in San Jose, Calif., is an employee-owned electrical contractor with offices throughout the United States. With revenues surpassing \$2 billion, Rosendin is one of the largest electrical contractors in the U.S. employing over 6,000 people. For 98 years, Rosendin has created a reputation for building quality electrical and communications installations, building value for clients, and building people within the company. For more information, visit http://www.rosendin.com/ and follow @rsndele on Twitter.

About Ampt

Ampt delivers innovative power conversion technology and communications capabilities that improve the way PV systems are designed. With installations and experience serving markets around the world, the company is headquartered in Fort Collins, Colorado and has sales and support locations in North America, Europe, and Japan, and South Korea as well as representation in Asia, Australia, and the Middle East. Along with our strategic partners in the <a href="https://doi.org/10.2016/j.com/html/proving-project-norm-new-pw-41/2006/j.com/html/proving-project-norm-new-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/proving-pw-41/2006/j.com/html/pw-41

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