



Contacts: KACO new energy

(415) 931-2046

sales@kaco-newenergy.com

Ampt

Dara Sklar or Kirsten Swenson MSLGROUP (415) 512-0770 ampt@mslgroup.com

COMMERCIAL SOLAR PROJECTS DEPLOY KACO NEW ENERGY-AMPT SOLUTION TO REDUCE SYSTEM COST AND IMPROVE PERFORMANCE

Optimized power solution enables more modules per string and higher resolution MPP tracking to improve project economics and design flexibility

San Antonio, Texas and Fort Collins, Colo.—April 15, 2015—KACO new energy and Ampt LLC today announced the recent deployment of projects with their solar solution that lowers the cost and increases the performance of commercial PV systems. The solution, which combines KACO new energy's blueplanet 50 TL3 SM solar PV inverter in Ampt Mode™ with Ampt's String Optimizers, increases the allowable number of modules per string to lower system costs while distributing MPP tracking throughout the array to increase energy production. Together, these benefits generate higher rates of return for their system owners.

Deploying this solution allows up to 20 modules (with 72 cells each) in a string, compared to 11 modules without Ampt in a 600 volt system. The longer strings lower system costs by reducing the amount of electrical balance-of-system (BOS) components and by fully loading the inverter to deliver over 50 percent more power.

The joint solution also increases the MPP tracking resolution by a factor of 20, compared to traditional designs. The higher resolution MPP tracking increases energy production and allows for the greater design flexibility that's needed for commercial rooftops, canopies/carports and some ground mount systems.

"We've seen an increase in demand for solar power solutions that have more granular MPPT and provide greater system footprint utilization," said Jurgen Krehnke, CEO of KACO new energy Americas. "Combining our inverter with Ampt's String Optimizers improves system performance and offers the layout flexibility needed to maximize coverage ratios."

"Our customers are realizing 1,000 volt system value using 600 volt components," said Evan Vogel, vice president of sales and marketing at Ampt. "In addition to the cost savings, customers building commercial rooftop and carport systems are benefiting from the simplified design offered in the KACO new energy-Ampt solution."

The KACO new energy-Ampt Solution in Action: Recently Deployed Projects

Three projects in California, a 350 kW ground mount system and two carport installations totaling over 200 kW, selected the KACO new energy-Ampt solution over competing designs. The solution saved approximately 3 cents per watt on electrical BOS costs in each of the projects. Performance models used to finance the projects showed an increase in energy generation ranging from 2-5 percent among the three PV systems when using the KACO new energy-Ampt solution. Actual energy production since commissioning these projects has outperformed these production estimates.

In another recent project, located in Costa Rica, this new solution made project economics viable on a multiple pitch rooftop. The more granular MPP tracking mitigated mismatch losses and provided the flexibility needed to maximize the system footprint amid near and far shading obstructions.

Customers interested in lowering the cost and improving the performance of their large commercial projects should contact their KACO new energy and/or Ampt sales representative for assistance. More information regarding KACO new energy products is available at www.kaco-newenergy.com. For additional information about Ampt's products, please visit www.ampt.com.

About KACO new energy

KACO new energy is amongst the world's largest manufacturers of solar inverters. With offices in 16 countries, the company offers inverters for every array size from the smallest homes to the largest solar farms of hundreds of Megawatts. KACO new energy USA is based in San Antonio, TX, and the production facilities there, at the headquarters in Germany and in Asia have supplied approx. 7 Gigawatts of cumulated inverter power since 1999. The company was the first inverter manufacturer to achieve fully carbon-neutral production and is rapidly heading towards power self-sufficiency. KACO new energy also supplies energy storage systems and battery inverters, as well as inverters for combined heat and power plants and CPV systems. In 2014, KACO new energy celebrated the centenary of the original company which was one of the first suppliers of inverters in the late 1930s.

About Ampt

Ampt delivers innovative power conversion technology and communications capabilities that are changing the way PV systems are designed. The company, along with strategic partners in the <u>HDPV Alliance</u>, is lowering system cost, improving ROI, increasing energy generation and broadening the PV solar market.

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