## enerG Focus Feature

# **SOLAR RACKING SYSTEMS**

#### **K2 SYSTEMS**

With sophisticated product ideas and a noticeable customer focus, K2 Systems is a preferred partner in mounting systems for the solar technology sector.

Worldwide, customers value their tried and tested designs for use on roofs and walls, as well as ground mounted solutions and individual solutions, the company says. K2 mounting systems impress aesthetically with their ap-



pealing design and high quality materials. K2's quality-conscious finish guarantees the highest functionality and durability, according to the company.

K2's range is

comprised of just a few perfectly coordinated components, which lowers the cost of materials, simplifies installation, and saves time and money. As a company with branches in the U.S., Germany, Italy, France, and Britain, K2 believes in cooperation in a spirit of partnership.

Krannich Solar is the company's exclusive sales partner in North America. www.k2-systems.com

www.usa.krannich-solar.com

#### **Energiebau North America**

Energiebau North America has introduced its newly designed LORENZ solo PV mounting system to the U.S. market. The successful and widely used LORENZ solo system has been redesigned to meet the special needs of the U.S. photovoltaic markets with a special emphasis on long-lasting structural safety, while being cost efficient and easy to install. This is German engineering at its best, says the company.

Components are available in aluminum or black. Be-



ing a value-added service provider, Energiebau includes grounding solutions, intelligent cable management, a panel guard, and a tool that supports hands-free instal-

lation of the solar panels. The hardware is shipped with a free software package called LORENZ designer, which generates a parts list for easy and complete ordering of all components and allows for fast and precise planning of PV arrays, including snow and wind loads. www.energiebau.com

### **Applied Energy Technologies**

Applied Energy Technologies (AET) racks fit all major solar modules and offer industry-leading installation time, says the company. A full layout and loading analysis is provided for every project. With manufacturing located in Ohio and Canada, AET says it has the shortest lead-time in the industry. AET's racking solutions include:

The Rayport Stainless Series Roof Ballast Rack, which the company says is the only stainless steel rack on the market. Designed to minimize installation time and cost, the Rayport features integrated fasteners allowing one common bolt for all joints, and only one grounding lug is needed per tray installed every 20 rows. No cutting or drilling is required for installation.

The Rayport Frameless Module System—AET's stain-

less steel ballast rack—supports frameless glass modules and is uniquely designed to hold two modules per set of rails.

The T6 Ground Mount Rack, designed for quick



and easy installation, has an aluminum frame with a fully adjustable tilt angle and requires no drilling, cutting, or heavy equipment for installation.

The T6 Pitched Roof PV Rail System attaches to most roof standoff systems and includes adjustable rail clamps to accommodate roof variations and installation alignment issues. Unique splice brackets require no holes in the rails.

www.AETenergy.com

#### MAGE SOLAR

MAGE SOLAR's new mounting system, MAGE SYSTEM-TEC, was recently introduced to the market. This next generation mounting system features easy installation for all types of pitched roofing material applications.

Its innovative click-technology requires only a minimal amount of parts, which drastically reduces the installation time, says the company. Extremely adjust-



able and priced very competitively, MAGE SYSTEMTEC makes no compromises when it comes to code compliance and the highest quality standards to ensure maximum service life, according to MAGE SOLAR. www.magesolar.com

#### from page 55

#### Renusol

The Renusol CS60 is a new type of mounting system for flat roof applications. Made of durable high molecular weight polyethylene (HMWPE), this compact system transports easily, sets up quickly, and requires no roof penetration with the addition of ballast.

Specifically enhanced and wind tunnel tested for



the U.S. market, the Renusol CS60 more spreads evenly point load weight across the roof surface. With only one Renusol CS60 needed for every PV module, roof design layouts and job inventory can

now be 'sized per panel', simplifying the project engineering and reducing installation costs. The system design is based on Renusol's highly successful European design that had more than 250,000 units installed in 2010 alone.

www.renusolamerica.com

#### **RBI Solar**

RBI Solar Inc. designs, engineers, manufactures, and installs solar mounting systems for large commercial and utility scale projects. As a specialist in ground mount, roof mount, and custom designed specialty solar structures, the company focuses on providing best-in-class racking systems and project management capabilities to serve owners and integrators. RBI Solar offers a broad range of solar racking systems to support every PV module manufacturer.

The company provides complete solar mounting solutions to solve virtually any structural mounting chal-



lenge in the solar world. RBI Solar's services include complete design, signed and sealed drawings for all 50 U.S. states, high-tech manufacturing, nationwide installation, and

end-to-end technical support to help customers solve the toughest challenges in the industry. All of its solar mounting systems come with a 20-year limited warranty.

Leveraging more than 70 years of experience in the commercial design-build specialty structures market, RBI Solar works with its clients to identify the most economical, durable, and robust solution. In partnering with RBI Solar, customers will benefit from working with one of the leading manufacturers of specialty steel and aluminum structures in North America. www.rbisolar.com

#### **Advanced Solar Photonics**

Designed and manufactured in the U.S. by Advanced Solar Photonics LLC, SunRail is a custom-designed mounting system for solar photovoltaic modules. Engineered to provide maximum flexibility while meeting the needs of even the most challenging PV mounting solutions, the SunRail system is comprised of aluminum extrusion alloy and installs in half the time of other systems, according to the company.

The SunRail system's versatility accommodates a wide range of modules and mounting needs, offering penetrating and non-penetrating rooftop options as well as



a ground mount solution. The SunRail system utilizes minimal parts yielding a fast, easy, and cost-effective solution for utility, commercial, and residential projects.

Advanced Solar Photonics, a subsidiary of BlueChip Energy, is a manufacturing and research and development center for crystalline silicon solar photovoltaic (PV) panels and racking systems.

www.bluechipenergy.net

#### Alternate Power International

Alternate Power International (API) is a Canadianbased manufacturer of solar racking systems. API offers product lines for residential, commercial, and large scale utility projects.

The company's racking lines include ground mount, adjustable ground mount, pitched roof, ballast roof, and single axis tracking solutions.

Adjustable ground mount is one of their newest product lines, built specifically for northern regions. It features a single person adjustable panel mount to compensate for seasonal changes. It has been shown to provide a near exact return on investment in comparison to dual axis trackers with no maintenance requirements or scheduled downtime.

API ballast mount racking is scalable for any job size. The racks are nearly assembled, making installation the fastest on the market, according to the company.



All of the company's racking is designed to ship nearly prefabricated, drastically reducing installation times. Using high quality galvanized steel and extruded aluminum materials, API racking can withstand the elements, guaranteeing client satisfaction. www.altpowerinternational.com е

#### Schletter

Schletter offers innovative solar mounting systems for project developers, module manufacturers, and system integrators for any size solar project. Each solar mounting system can be individually designed for a cost-effective photovoltaic mounting solution in utility-scale ground mounted, commercial or residential sloped and flat-roof systems. Regardless of the application, Schletter has a solar mounting system to meet customer needs, says the company.

Schletter's ground mount FS System provides a prov-



en track record with more than 4 GW of installed PV across the globe. With a pile-driven galvanized steel post as its foundation, the system can reach installation times

of 4 MW or more per week making the FS one of the fastest easily repeatable ground mount systems on the market, according to the company.

www.schletter.us www.schletter.ca

#### Cooper

The Cooper B-Line ARISTA monolithic commercial rooftop racking system is designed with fewer components, many of which are pre-assembled, thereby significantly reducing installation times. The award-winning system installs at a rate of up to 3 kW per man-hour and accommodates both portrait and landscape orientation and virtually any type and size of PV panels.



The reduced installation time of the ARISTA system, coupled with the company's optional integrated wire management system and engineering support, provides solid value for solar PV

installations, says the company. Advanced boundary layer wind-tunnel testing results in lower distributed loads and ballast weights, which allows customers to meet roof capacity constraints. The ultimate in "on the roof" flexibility is delivered due to a robust strut construction that is compatible with standard fittings for maximum installation flexibility.

Cooper offers a complete Balance of System (BOS) solution with a wide-range of components to seamlessly integrate PV module racking, cable management, combiner boxes, wire harnesses, and more to maximize efficiency and long term power production and reliability. www.cooperbline.com

#### Unirac

Unirac, a North American leader in solar infrastructure, offers commercial and residential solar infrastructure products from its expansive portfolio, including the redesigned ISYS Ground Mount and SolarMount-I.

Unirac says its SolarMount-I is engineered for flush mounting applications and offers superior aesthetics, su-

perior value, and easy installation on most roofing types.

ISYS Ground Mount provides outstanding engineering and design support, code compliance, availabil-



ity, installation speed, and reliability, says Unirac. IGM is the only ground mounted racking system that offers module pre-assembly, allowing for further reductions in project time and cost, according to the company. IGM is optimized for commercial and utility projects of all sizes and custom designed for each customer's unique module and site conditions.

To accompany their line of products, Unirac offers free mobile tools for installers, including the U-Clinometer that measures roof tilt and pitch and a QR Code Reader to make instructions easily accessible while reducing paper waste and packaging. These are available in the App Store for iPhones. www.unirac.com

### Solar FlexRack

The Solar FlexRack is among the most innovative photovoltaic rack mounting systems on the market, says the company. In use in North American solar projects totaling over 240MW, the Solar FlexRack is available in ground-mount, roof-mount, and carport models.

Its unique pre-assembled unfolding design means each rack can be installed by a three-man crew in five minutes or less. The result: significantly accelerated construction times and dramatic savings on labor costs—an estimated \$500,000+ savings per 10MW project, according to the company. Thus, when the Solar FlexRack is

specified in an RFP, the total bid could be as much as 40 percent lower for construction.

Available Smart Options for the Solar FlexRack include



the SmartGround clip, which eliminates the need for grounding straps; the SmartClip, which allows for PV panel installation without using a ladder; and the Smart Tilt Bracket, which can be positioned and attached by just one person.

www.SolarFlexRack.com

to page 56