



**Solar Stik.** The Nano-Series Solar Stik 100 & Power Pak 100 system is designed for light- to medium-duty applications and can store up to 1 kWh per day. Dual power receptacles allow for the connection of additional Stiks. The Stik transports in a reusable box or a Pelican transport case with custom foam inserts. The Power Pak has wheels and an extending handle for easy transport, the maker says. 800.793.4364. [www.solarstik.com](http://www.solarstik.com). Circle 280.

**Mobile Solar Systems.** MS 100 solar generators range from 9 kWh to 18 kWh of battery storage capacity, .95 kWh to 4.68 kWh production per day, and 1.1 kW to 3.5 kW of output power. The Wells Cargo trailers are light enough to be towed behind most four- or six-cylinder vehicles, the firm says, and the products can include AC input or diesel and gasoline generator charging capability. 805.466.1006. [www.mobilesolarpower.net](http://www.mobilesolarpower.net). Circle 281.



The crew at Frank Schipper Construction needed a new way to run jobsite equipment. They had to remove the transformer that provided power at a new project in Santa Barbara, Calif., and because they were working in a residential neighborhood with strict noise ordinances, a diesel or gas generator was out of the question.

Then superintendent Tom Weinberg came across solar generators. “We have all the tools running off of it, and the job trailer is run off of it, and the lighting is run off of it,” he says. “I like it better, because it has power all night long ... with the diesel, you have to turn it off and you have no power. Security lighting is plugged into it, and that would not work on a diesel generator.”

Solar generators not only provide a greener solution for jobsites that need temporary power, but also have practical aspects. “[They’re] quiet, there are no fumes or smell, and there is no refueling,” says Christopher Smith, vice president of marketing and sales for Pure Power Distribution. They also have no moving parts, so they need less maintenance, manufacturers say. Still, questions about cost and flexibility have some pros hesitant to give solar a shot.

**WORK IT OUT**

While all solar generators are slightly different, they work in the same basic way: Solar panels on top of a trailer or racking system charge a battery; the battery holds the charge. An inverter converts the collected DC power into AC power usable by tools and other equipment that plug into the product.

There are three main power measurements for solar generators, says Jason Szumlanski, operations manager at Fafco Solar, which is introducing its first solar generator for jobsites. The solar panels charge the batteries at a certain rate; the batteries hold a certain amount of energy, like fuel tanks on gas generators; and the solar generator draws a certain amount of power from the batteries, called the output rate.

A generator’s power is measured in watts; kilowatts (kW), which equal 1,000 watts; or kilowatt/hours (kWh), which equal 1,000 watts used for one hour.

Travis Semmes, founder of Mobile Solar Power, says his company’s MS125 and MS150 solar generators, which have 18 kWh of battery storage capacity and 3.5 kW of output capacity and range from 1.89 to 3.51 kWh per day of solar

# All Charged

Solar generators offer another solution for temporary jobsite power.



By Victoria Markovitz



**Pure Power Distribution.** Mobile Solar Power Systems feature rugged positioning platforms to withstand the rigors of the jobsite, says the firm. Easy to use, the units can be delivered, deployed, and powered up by one person in a few minutes. The products use General Electric polycrystalline panels and can range from 5 kW to 72 kW. 310.569.9151. [www.purepower.com](http://www.purepower.com). Circle 282.



**SolSolutions.** The standard SolMan generator runs small handheld power tools and small power tools, such as a circular saw, while the SolMan Deluxe lithium model is more robust and can run a worm drive, air compressors, and drills. The models work for small sites, but not for crews running multiple tools, the maker says. They can be designed for up to 1,200 watts of output power. 800.828.2965. [www.sol-solutions.com](http://www.sol-solutions.com). Circle 283.

**Spirit of the Sun Solar Systems.** The Spirit of the Sun solar generator is ideal for areas where noise or other ordinances restrict the use of gas- or fossil-fuel-powered generators. With no moving parts, SOS solar generators run silently and emit no fumes, the maker says. Generators are available in a range of sizes and power outputs depending on the application. 480.226.6203. [www.sossolarsystems.com](http://www.sossolarsystems.com). Circle 284.



production, would probably work well for a six-person crew. For a 12-person crew, the MS200 line offers 3.5 kW to 7 kW of output power, 5.67 to 10.53 kWh per day of solar production, and 27 kWh of battery storage capacity.

Another manufacturer, Powerenz, takes a custom approach, with systems built depending on how much power buyers need, how many hours they are working, and what region of the country they are in, says Ryan Brown, who handles sales and marketing.

Although solar generators have a number of advantages, they also have challenges. One of the biggest questions is their ability to work in all types of weather. But manufacturers say solar panels are more sensitive than people think, and hybrid systems allow for hookup to a power outlet or a gas or diesel generator for a pre-charging or a boost during bad weather.

For example, Dan Jones, CEO of Spirit of the Sun Solar Systems, is using one of his generators to run a floor sander, nail guns, and compressors for a remodeling job in upstate New York, where he can't always count on constant sun. Even on a cloudy day, the generator still collects energy at about half to three-quarters of its normal capacity, he says.

"Shade has an effect on solar panels, more than cloudy days or even rainy days," says Smith, noting that people as far north as Seattle lease his products. "In fact, we've had days where our systems were receiving 60% to 70% of normal solar input in the rain."

Cost is another concern because a solar generator can be 10 times more than a traditional generator. But manufacturers say that with savings on fuel costs and tax rebates, the units pay for themselves in a few years.

Contractors also need to consider how much space they can spare, as the units must accommodate solar panels as well as batteries, an inverter, and other accessories. For example, the smallest series of solar generators from Mobile Solar Power measures 4 feet by 6 feet.

Nevertheless, Weinberg says size hasn't been an issue. "This has been here a year and we've hardly moved it around at all," he says. "It's on wheels and would take 30 seconds to move it if you wanted to." **BP**



**Powerenz.** Custom solar-powered generators are built depending on how much power a user needs and how long a crew works. The units use LFP batteries, instead of the older lead acid technology, which makes them lighter in weight and 10 times longer lasting than other products, the maker states. Shown here is the LFP 200 Battery Module that has a monitor to display battery data and how many hours and minutes until the battery needs to be recharged. The time is based on a user's average power consumption over a three-minute time frame. 770.639.2244. [www.powerenz.com](http://www.powerenz.com). Circle 285.

For more manufacturers of and information on generators, visit [www.ebuild.com](http://www.ebuild.com).